

# PUBLIC SAFETY & AQUATIC RESCUE TRAINING MANUAL

35<sup>th</sup> EDITION



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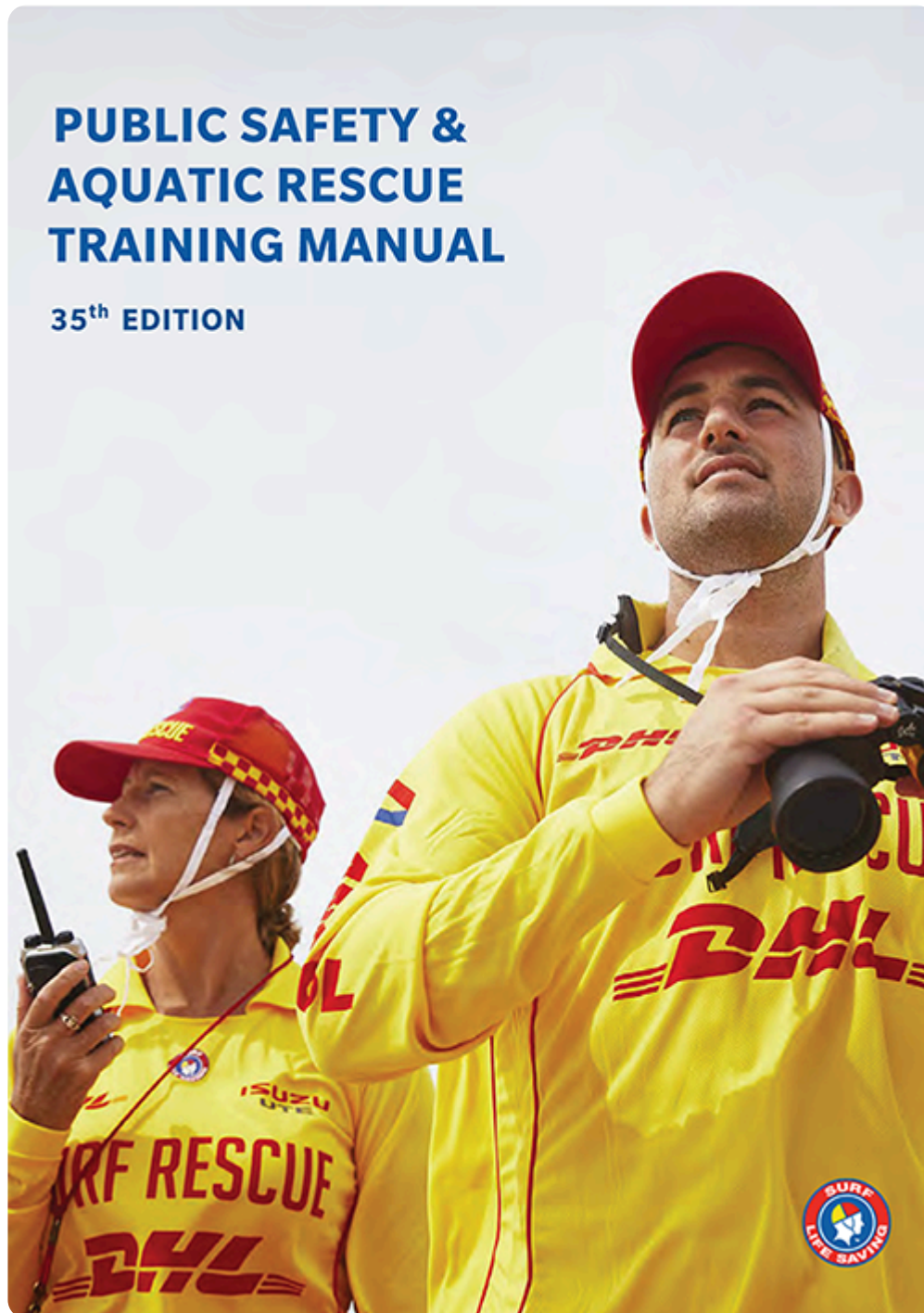
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# PSAR 35

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A PDF version of this manual can be downloaded by current members from the [SLSA Members Area](#).

## Foreword

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Surf Life Saving Australia (SLSA) is Australia's peak coastal water safety, drowning prevention and rescue authority. SLSA is also one of many national aquatic lifesaving organisations from around the world that collectively form the International Life Saving Federation which establishes international best-practice strategies for improving drowning prevention, water safety, lifesaving and lifesaving sports.

With nearly 200,000 active members, Surf Life Saving is the largest volunteer movement in Australia.

Made up of 315 surf lifesaving clubs, paid lifeguard services, emergency support operations and state and territory centres around the country, SLSA is a diverse and professional organisation protecting communities from as far north as Gove, to as far south as Clifton Beach.

The breadth and depth of what we deliver makes us truly unique. We are:

- A vital emergency service
- An iconic Australian sport
- Australia's largest youth movement
- An accredited national training organisation
- Vibrant community hubs

Since SLSA was established in 1907, over 650,000 people have been rescued by surf lifesavers. Our volunteers are highly skilled and trained to international best practice standards in public safety and drowning prevention. Our standards are embedded within units of competency and qualifications that are part of the world-renowned Australian Quality Training Framework.

The new 35th edition of the Public Safety and Aquatic Rescue training manual reflects our commitment to continuous improvement in surf lifesaving training techniques. Furthermore, it also reflects our commitment to making the lives of our volunteers easier through the increasing use of technology.



John Baker ESM  
President  
Surf Life Saving Australia

## Preface

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Surf Life Saving Australia's Public Safety and Aquatic Rescue training manual 35th edition (PSAR35) is the most comprehensive training guide for surf lifesaving techniques in Australia. It is the key educational resource used to deliver the Surf Life Saving Australia Surf Rescue Certificate (SRC) and Bronze Medallion (BM) award courses providing key information, instructional videos and links necessary for completing the [eLearning](#) and practical requirements of the courses. Surf lifesavers throughout Australia will learn from it, teach from it and ultimately contribute to it. Its contents also provide base knowledge for further training in beach management, emergency care, training and assessing, surf sports and powercraft operations

The PSAR35 has been updated to meet current requirements following a Curriculum Review, recent changes in the Public Safety training package and changes to the Australian Resuscitation Council guidelines. The updates were informed by extensive consultation with SLS members, taking into account feedback from across the movement and content written by an expert committee.



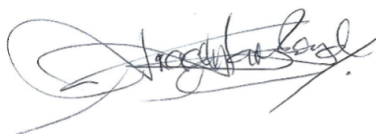
The PSAR35 has been developed in a new digital format. This has improved accessibility, will make the members learning experience more engaging and allow for timely updates. Lifesavers will now have the ability to access the PSAR35 on their devices at any time to refer to content, refresh their knowledge, share content and review updates to maintain the currency of their knowledge. The digital manual also complements new online self-paced training developed for the Surf Rescue Certificate and Bronze Medallion awards.

The PSAR35 has been and will continue to be benchmarked against competency standards from the public safety industry, specifically the Certificate II in Public Safety (Aquatic Rescue). This helps to ensure that our training and assessment standards remain current and of a high standard to meet the demands of our role as an emergency service and the preservation of life.

To all those dedicated surf lifesavers who contributed to the review and development of the PSAR35, your efforts are invaluable and we extend our deepest appreciation on behalf of the movement.



Chris Jacobson  
Chair, Lifesaving



Tracey Hare-Boyd  
Chair, Education

## Acknowledgements

---

Surf Life Saving Australia (SLSA) would like to acknowledge the many staff and volunteers from every state/territory who contributed their time and expertise to support the development of this manual.

Our appreciation goes in particular to the Editorial Panel:

- Tracey Hare-Boyd
- Andrew Hjorth
- Chris Jacobson
- Hayley Jay
- Elise McCorriston
- Roy Menner, Kevin Richardson
- Graham Sharpe
- Michael White

And the following SLSA Committees:

- SRC/BM Curriculum Working Group
- Lifesaving Advisory Committee
- Lifesaving Management Committee

- Education Advisory Committee
- Education Management Committee
- PSAR35 Consultative Reference Group

# Module 1 – Introduction to Surf Life Saving

Surf Life Saving (SLS) exists to save lives, create great Australians and build better communities. It is a unique not-for-profit cause that exists through donations, fundraising, corporate sponsorship and government grants. Since Surf Life Saving Australia (SLSA) was established in 1907, over 650,000 people have been rescued by our surf lifesavers<sup>[1]</sup>

SLSA is Australia's peak coastal water safety, drowning prevention and rescue authority. With over 170,000 members and 314 affiliated surf lifesaving clubs<sup>[2]</sup>, SLSA represents the largest volunteer movement of its kind in the world.

## Our history

A brief history of surf bathing, lifeguarding and surf lifesaving in Australia

### 18 July 1818

A Sydney newspaper (Sydney Gazette) records the first surf drowning in Australia, at Bondi Beach.

### Late 1800s

Some basic lifesaving and rescue assistance are provided by surf brigades and councils.



### Early 1900s

Daylight bathing bans (introduced in the mid- to late-1800s) are lifted and the earliest surf lifesaving clubs were formed in Sydney.

### 1906–07



Manly Council employs a lifeguard, Edward 'Happy' Eyre, who dons a water polo cap to identify himself on the beach when on duty. The idea was adopted by surf lifesaving clubs for competition and patrols.

### 18 October 1907

The Surf Bathing Association of NSW (SBANSW) is formed by a group of surf lifesaving clubs, swimming clubs and the Royal Life Saving Society. The association regulated and promoted matters relative to surf bathing and was the precursor to the organisation known today as Surf Life Saving Australia (SLSA).

### 1907

Reel, line and belt lifesaving equipment is introduced in Australia.



### 1910

The first SLSA Bronze Medallions are awarded to five men from Sydney clubs. The Bronze Medallion becomes the basic qualification required to perform surf rescues.

**20 March 1915**

The first Australian Surf Lifesaving Championships are held on Bondi Beach. This is now an annual event.

**Mid-1930s**

The red and yellow colours are adopted from the maritime warning flag system for patrol caps (the diagonal red and yellow flag is the international maritime warning flag for 'man overboard').

**1935**

Red and yellow beach flags are introduced, replacing the earlier colours of blue and white.

**6 February 1938 ('Black Sunday')**

Hundreds of swimmers are swept into the water at Bondi Beach. Roughly 250 were rescued, making this the biggest mass rescue in SLISA history. Sadly, five men died.





### 1939–45 (World War II)

Active surf lifesavers on military service overseas set up patrols on beaches in the Middle East and the Pacific, undertaking training sessions and instructing locals in surf rescue techniques. Back in Australia, women and schoolboys play an important role in ensuring that surf lifesaving clubs continued to operate.

### 1956

The Surf Life Saving Association of Australia joins with those of Ceylon, Great Britain, Hawaii, New Zealand, South Africa and the USA to establish the International Council of Surf Life Saving (ICSLS).

### Mid-1960s

Nippers programs are developed to provide surf skills training for children (boys only until females are admitted as members by SLSA in 1980).

### 1970

The use of stinger suits is introduced to Northern Australia.

### 1970s

Inflatable rescue boats (IRBs) are introduced for surf rescue work

### 1971

A meeting takes place in Sydney at which all affiliates to the ICSLS join to form a new, fully constituted organisation called World Life Saving (WLS).

### 1973

First use of oxygen equipment on patrol.

### 1980

Females are admitted as full patrolling members of surf lifesaving clubs for the first time. Today, almost 40 per cent of patrolling lifesavers are female.



**1993**

WLS and the Fédération Internationale de Sauvetage Aquatique (FIS) unite to become the International Life Saving Federation (ILS), with their headquarters in Leuven, Belgium.

**1997**

First successful use of a defibrillator by a volunteer surf lifesaver.

**2007**

Centenary of surf lifesaving; designated the 'Year of the Surf Lifesaver'.

**2015**

The Australian Surf Life Saving Championships celebrates its 100th anniversary of the first-ever staging of The Aussies in April.





2017

First ever drone-assisted rescue in the world.

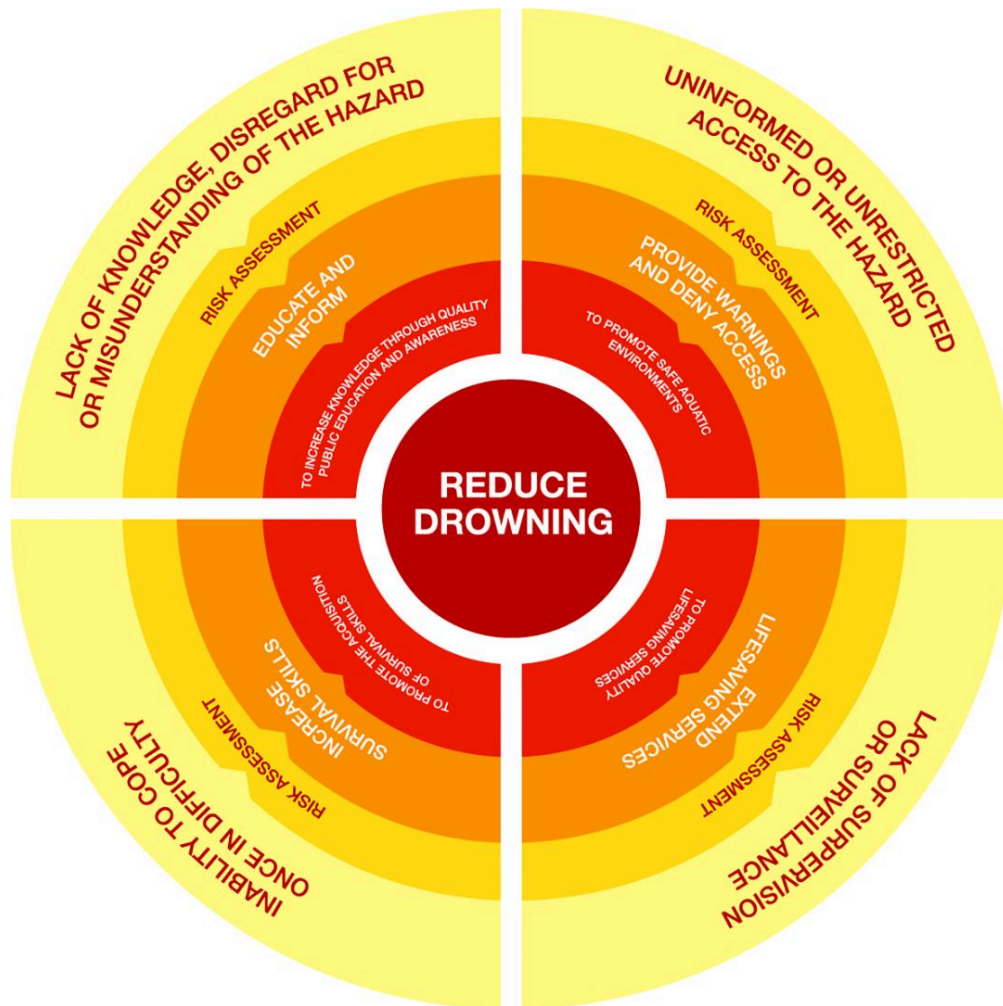
## Drowning prevention strategies

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SLSA aims to base its drowning prevention strategies and programs on substantial evidence. Equally important is the use of research strategies to fill gaps in our knowledge and to discover new and effective strategies. SLSA collaborates with many research institutions to ensure that evidence is of a high quality, independently evaluated and of value to SLSA program and service improvement.

SLSA has developed a 'total service plan' that outlines some initiatives for addressing each aspect of the International Life Saving Drowning Prevention Chain<sup>[3]</sup>. This plan recognises that lifesavers need to be skilled in prevention, recognition, rescue and recovery strategies in order to effectively prevent drowning.

Each module of this app links to one or more aspects of the Drowning Prevention Chain.



## Lifesavers and Lifeguards



Many members of the public ask what is the difference between surf lifesavers and lifeguards. Surf lifesavers are trained volunteers who patrol our beaches and provide beach safety services on weekends

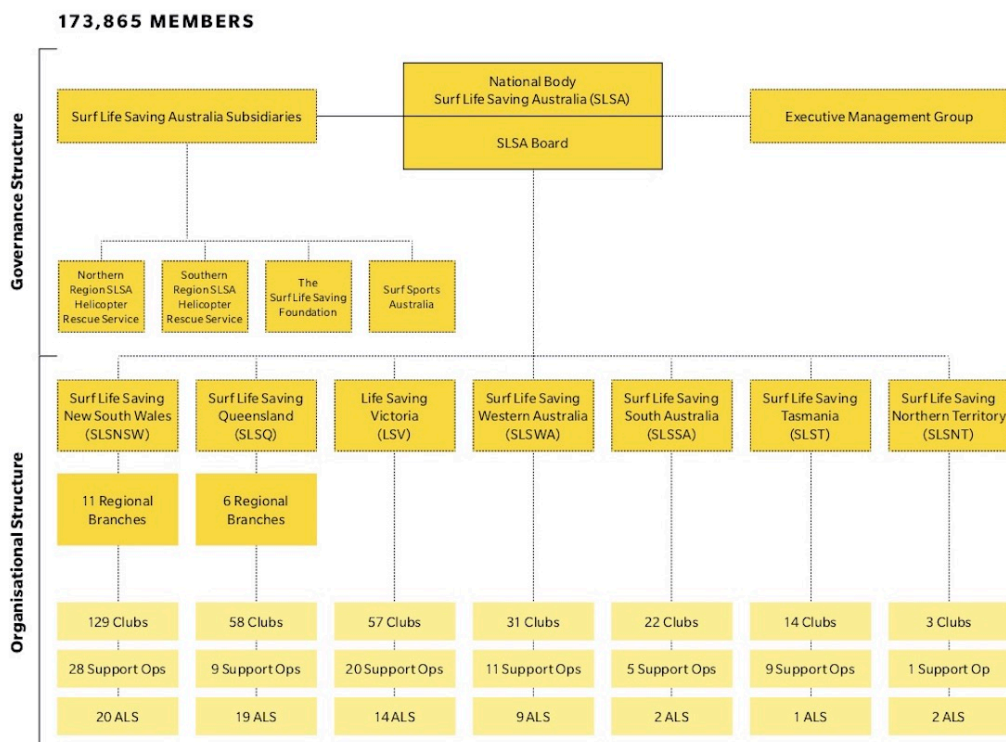
and public holidays during the peak school holidays and summer season. They undertake a number of roles including aquatic rescues, providing first aid and emergency care, and providing surf safety information to the public.

Lifeguards are paid employees undertaking patrols at a beach or another aquatic environment. The Australian Lifeguard Service (ALS) is the national lifeguard provider of beach and pool lifeguard services to government councils and land managers across Australia. You can refer to the [Australian Lifeguard Service website](#) for more information on lifeguarding in Australia.

For simplicity in this manual, *lifesaver* is used to refer to both lifesavers and lifeguards except when there is a point of difference between the two.

## SLSA Governance and Organisational Structure

As one of the largest volunteer organisations in Australia, we depend on the contribution of our volunteer members for everything from patrolling beaches, to providing input for the strategic direction for the organisation. Thanks to its members, SLSA has evolved over time into a highly federated and geographically dispersed organisation, made up of surf lifesaving clubs, regional branches (in New South Wales and Queensland), state centres, support operations (regional rescue and response teams), as well as paid lifeguard services. Refer to the [SLSA website](#) or the [SLSA Annual Report](#) for more information.



As one of Australia's largest volunteer movement, SLS has several committees at every level of the organisation to ensure volunteer representation in key decisions.

Committees may comprise of SLS staff and/or volunteer members. Some committees cast votes to make changes in the strategic direction of SLS, while other committees provide recommendations for



consideration, e.g., WHS committees.

Refer to your SLS state centre, branch and/or club's annual report for more information on the structure and function of your local SLS workplace committees.

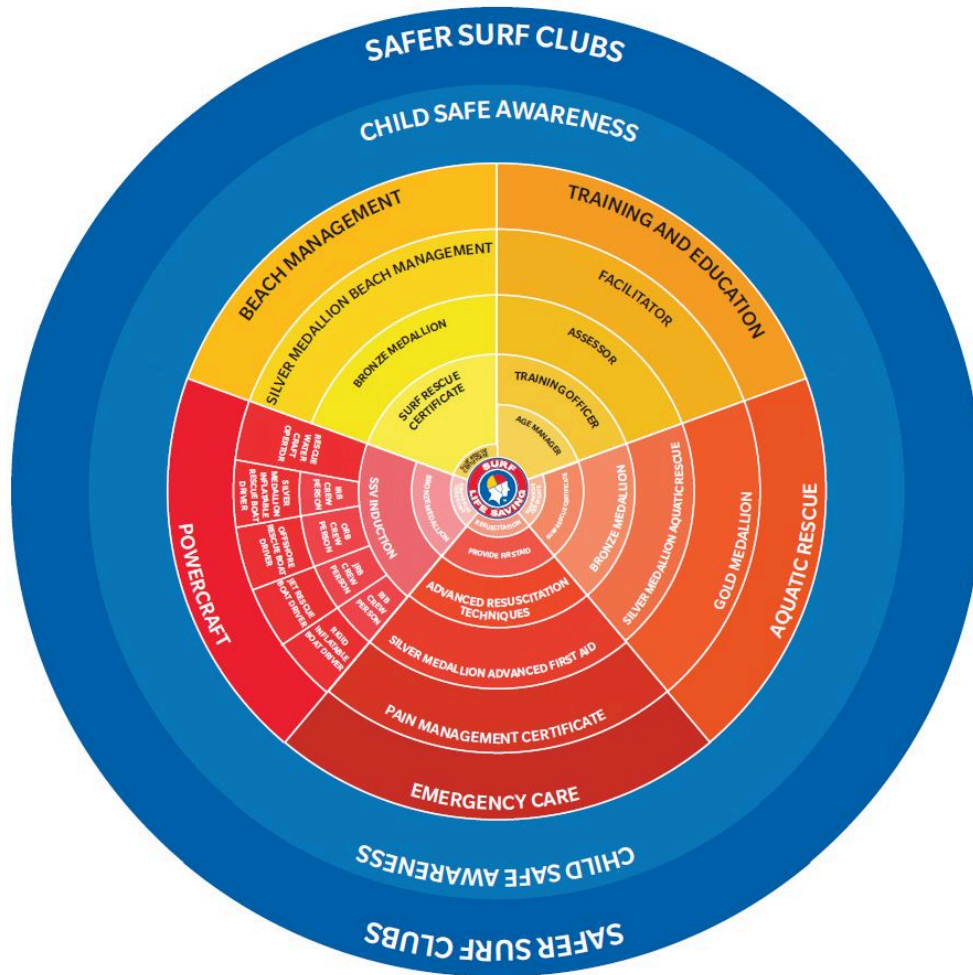
## Training and Education

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There are multiple entry-level qualifications for being a lifesaver and SLS training opportunities for you to maintain your effectiveness as a lifesaver. Refer to your patrol captain or SLS state centre website for more information on courses and training opportunities available in your state as well as any prerequisite and proficiency requirements. You can supply feedback on training through your surf lifesaving club's chief training officer or by contacting SLISA directly and speaking with a member of the Learning and Development team.





## Progression and competition opportunities

Many potential employers and members of the community recognise the skills and positive values that volunteer lifesavers uphold. Getting involved in SLS activities, progressing through SLS pathways and participating in other SLS training or leadership programs can lead to various career and competition opportunities, both within Australia and internationally. There are also opportunities at every level of the organisation to progress as a volunteer or paid staff member. Refer to any of the SLS entity's websites for information on what further options are available.



# Module 1 – Reflection Questions

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Now that you have completed this module, read through the following reflection questions. If you find yourself answering 'no' or 'not sure' to any of them, you may wish to go back and review the relevant content or speak with your trainer for clarification.

1. Are you familiar with the different ways in which Surf Life Saving works to [reduce drowning](#)?
2. Do you know how your SLS club fits into the [national organisation](#) and how decisions are made in your SLS club and state centre?
3. Are you aware of the different award pathways and [training opportunities](#) available to you?
4. Do you know who is available to support you in your role at your SLS club?

# Module 2 – Safety and Wellbeing

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- [Safety and wellbeing](#)
- [Work Health and Safety](#)
- [Workplace injury and illness](#)
- [Physical Health](#)
- [Mental Health](#)
- [Member protection](#)
- [Module 2 – Reflection Questions](#)

## Safety and wellbeing

---

Your surf lifesaving club (or lifeguard base), the beach and the aquatic environment are seen as your workplace. As such, all SLS members have a shared duty of care under Australia's Work Health and Safety (WHS) legislation to ensure the health and safety of themselves and others, as is reasonably practicable.

As part of SLSA's commitment to health and safety, this manual outlines some of the safety responsibilities involved in surf lifesaving and what can be done to minimise the risk of injury or illness in the surf lifesaving work environment.

### **Safety induction**

You must participate in an induction as part of your safety awareness training and as per your surf lifesaving club or service's work health and safety management plan. This should be done before participating in any SLS activities. Your induction should cover all the points listed on the [SLSA Club Member Induction Checklist](#), which is available in the SLS Members Area Document Library.

Club (workplace)		
Date		
<b>Administration</b>	<b>New Member</b>	<b>Existing Member</b>
1. Welcome/brief club history	<input type="checkbox"/>	N/A
2. SLS organisational structure	<input type="checkbox"/>	N/A
3. Member safety and critical incident information brochure (see SLSA Members Area)	<input type="checkbox"/>	N/A
4. Membership fees	<input type="checkbox"/>	<input type="checkbox"/>
5. Parking and security procedures	<input type="checkbox"/>	N/A
6. Club communication	<input type="checkbox"/>	N/A
7. Code of conduct – public relations	<input type="checkbox"/>	<input type="checkbox"/>
8. Incident reporting procedures	<input type="checkbox"/>	N/A
9. Relevant working with children check	<input type="checkbox"/>	<input type="checkbox"/>
10. Relevant SLSA policies, e.g., uniform policy, member protection (see SLSA Members Area)	<input type="checkbox"/>	<input type="checkbox"/>
11. Relevant SLS state/territory, SLS branch and surf club policies	<input type="checkbox"/>	<input type="checkbox"/>
12. Grievance procedures	<input type="checkbox"/>	<input type="checkbox"/>
<b>Work, Health and Safety (WHS)</b>		
1. Relevant WHS legislation, SLSA policies and guidelines (see self-audit checklist in SLSA Members Area)	<input type="checkbox"/>	<input type="checkbox"/>
2. Outline of WHS responsibilities of all members	<input type="checkbox"/>	N/A
3. Outline of WHS responsibilities of club officers, e.g., club safety officer	<input type="checkbox"/>	N/A
4. Reporting of WHS issues – unsafe conditions, accidents, all types of incidents	<input type="checkbox"/>	<input type="checkbox"/>
5. Health and safety information at the club, e.g., location of SLSA Guidelines to Safer Surf Clubs, knowledge of the SLSA Safer Surf Clubs online course, brochures and posters	<input type="checkbox"/>	<input type="checkbox"/>
6. Personal injury reporting and workers compensation	<input type="checkbox"/>	<input type="checkbox"/>
7. Emergencies and first aid equipment	<input type="checkbox"/>	<input type="checkbox"/>
8. Overview of common surf club hazards (see SLSA Guidelines for Safer Surf Clubs)	<input type="checkbox"/>	<input type="checkbox"/>
9. Orientation of surf club including safety signs and exits, emergency access for ambulance.	<input type="checkbox"/>	<input type="checkbox"/>
10. Personal protective equipment (PPE)	<input type="checkbox"/>	<input type="checkbox"/>
11. Emergency evacuation procedures	<input type="checkbox"/>	<input type="checkbox"/>
12. Fire safety training and location of fire extinguishers (see SLSA Fire Extinguisher Selection Chart)	<input type="checkbox"/>	<input type="checkbox"/>
<b>Lifesaving/Operations</b>		
1. SLSA guidelines	<input type="checkbox"/>	<input type="checkbox"/>
2. SLS state/territory standard operating procedures	<input type="checkbox"/>	<input type="checkbox"/>
3. Local operating procedures	<input type="checkbox"/>	<input type="checkbox"/>
<b>Training</b>	<b>New Member</b>	<b>Existing Member</b>
1. Training manual issued	<input type="checkbox"/>	N/A
2. Awards and qualifications structure	<input type="checkbox"/>	<input type="checkbox"/>
3. Allocation to a trainer and/or training group	<input type="checkbox"/>	N/A
4. Training facilities and resources explained	<input type="checkbox"/>	N/A
5. Access to SLSA Members Area/ SLSA online courses	<input type="checkbox"/>	N/A
<b>Sports</b>		
1. SLSA Surf Sports Manual (see SLSA Members Area)	<input type="checkbox"/>	N/A
2. Surf sport disciplines	<input type="checkbox"/>	N/A
3. Roles, e.g., competitor, coach, official	<input type="checkbox"/>	N/A
4. Sports facilities and resources explained	<input type="checkbox"/>	N/A
5. Club sports structure	<input type="checkbox"/>	N/A
<b>Orientation to club</b>		
1. First Aid room	<input type="checkbox"/>	N/A
2. Amenities, kitchen, bar	<input type="checkbox"/>	N/A
3. Gymnasium (if applicable)	<input type="checkbox"/>	N/A
4. Gear shed and location of equipment	<input type="checkbox"/>	N/A
5. Location of phone and emergency numbers	<input type="checkbox"/>	<input type="checkbox"/>
6. Specific problem areas/issues relevant to club	<input type="checkbox"/>	<input type="checkbox"/>
<b>Declaration by new/existing member being inducted</b>		
Name	Phone	
Email		

## Safety signage

The [Australian Standard 1319-1994 Safety signs for the occupational environment](#) specifies several signs that relate to safety. Look for these signs in and around your surf lifesaving club. Read and understand their safety messages before taking appropriate action.

### Types of safety signs



#### Danger signs

Danger signs are used where conditions are likely to be life-threatening. The word 'Danger' appears inside a red oval inside a black rectangle.



#### Warning signs

Warning signs are to be used where conditions are hazardous yet not likely to be life-threatening. The black hazard symbol appears within a triangle on a yellow background. Black wording may also appear if necessary.



#### Emergency signs

Emergency signs indicate the location of emergency-related facilities such as first aid kits, emergency exits and safety equipment. They comprise a white symbol and/or text on a green rectangle with white enclosure.



### Fire signs

Fire signs advise the location of fire alarms and firefighting equipment. They contain a white symbol and/or text on a red background.



### Mandatory signs

Mandatory signs usually contain the word 'MUST' and indicate an instruction that must be carried out. These signs appear as a blue circle containing a white symbol and may also present black wording on a white background.



### Prohibition signs

Prohibition signs specify actions or behaviours that are not permitted. A red annulus and a slash symbol are shown over the action symbol on a white background. The sign may also show black wording on a white background.



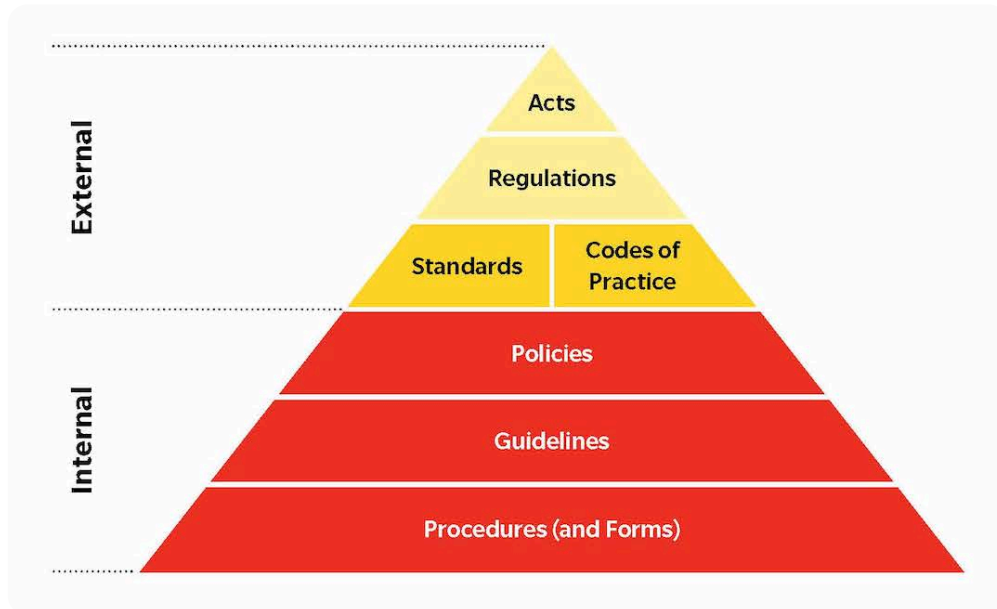
### General information

General information signage communicates information of a general nature and often refers to housekeeping, company requirements and logistics. They are made due to popular demand even though they are not referenced in the Australian Standard.

## Work Health and Safety

There are many forms of WHS legislation with supporting documents relevant to WHS in surf lifesaving clubs. Both state/territory and federal legislation cover WHS matters. SLSA is guided by the following in establishing its WHS related policies and guidelines:





- **Acts** – statutes or laws passed by both houses of an Australian or state parliament where appropriate.
- **Regulations** – rules that specify in great detail how to comply with an Act. Regulations are legally binding documents.
- **Standards** – authoritative guides to best practice; in some cases, they are legally binding when incorporated into legislation.
- **Codes of practice** – practical guidance about one or more ways of achieving legal requirements under the WHS Act and regulations. They are also the minimum standards of WHS that should be complied within a workplace.
- **Policies** – official documents adopted by SLSA and its entities that outline the rules that must be followed within a specific area of the organisation.
- **Guidelines** – streamline certain processes according to what is best practice when specific policies or standards do not apply.
- **Standard operating procedures (SOPs)** – step-by-step instructions on how to complete tasks to enact policies, standards and guidelines. These are what you will see and follow in your day-to-day operations at your surf lifesaving club.

Copies of SLS policies, guidelines and standard operating procedures (SOPs) are available to access via the [SLS Members Area Document Library](#). You should familiarise yourself with them. Monitor the [SLS Members Area News and Events](#) for any updates made to policies before June each year.

## Work Health and Safety Act 2011

The Work Health and Safety Act 2011 (WHS Act 2011)<sup>[4]</sup> law requires that organisations protect the health, safety and welfare of all workers (including volunteers) and other people in the workplace. It defines health to mean both physical and psychological health. The WHS Act 2011 also requires that all people are protected from hazards arising from work, so much as is reasonably practicable. [State and territory WHS regulators](#) can impose penalties when organisations or individuals do not comply with this law.

# Duty of Care



Australian WHS legislation requires organisations such as SLSA and its entities to offer a duty of care to ensure, so much as is reasonably practicable, the health and safety of people who carry out activities in the workplace.

'A volunteer officer' (someone who makes, or participates in making, decisions that affect the whole, or a substantial part, of the organisation's activities) generally cannot be prosecuted for failing to comply with their officer duties under the WHS Act 2011. A volunteer officer can, however, be prosecuted in their capacity as a volunteer worker just like any other worker if they fail to take reasonable care regarding their health and safety or that of others.

Some incidents should be immediately notified to your state/territory WHS regulator. In some instances, an incident or injury scene may need to be preserved as per your local SOPs. Your designated club safety officer will facilitate this.



# Duty to Rescue



Where a lifesaving or lifeguarding service is provided, team members on duty have a certain level of responsibility to beachgoers. While lifesavers and lifeguards do not have an automatic duty to rescue someone, there are some guiding principles that need to be taken into consideration at the time of any incident(s).

- Are you putting yourself in unnecessary danger?
- Do you have the skills to perform the rescue?
- Do you have the equipment you need?
- Is the person(s) asking for help?
- Is it foreseeable that the person(s) will need help?
- Is it reasonable to render assistance?

If you are off duty, you have no legal duty of care to stop and render assistance to any person requiring assistance. If you do, the 'Good Samaritan' laws in your state should offer some protection. Nearly all Australian states and territories have in place Good Samaritan legislation to ensure that people who step forward to provide emergency medical assistance are not held legally liable for their actions provided they act in good faith.

Whether you are on or off duty, you should take care to do only what is within the limits of your ability and training.

# WHS Responsibilities

All SLS members have a shared duty of care under Australia's WHS legislation to ensure the health and safety of themselves and others within their surf lifesaving clubs, so much as is reasonably practicable.

## Responsibilities of all SLS entities

- Establish and monitor risk management procedures.
- Consult widely on WHS issues and resolve them promptly.
- Investigate surf lifesaving incidents and accidents.
- Implement and maintain the injury reporting system and strategies.
- Maintain a safe work environment with clear safety rules and updates.
- Promote a culture of safety and wellbeing.
- Provide safety training and education.
- Provide access to safety equipment necessary to perform specific activities.
- Support the development of systems for managing critical incidents and stress.
- Support rehabilitation and return-to-duty procedures for injured members.

For more information on the responsibilities of various roles within a surf lifesaving club, refer to the *SLSA Club Responsibility Matrix*, which is available in the [SLS Members Area Document Library](#).

Responsibility Matrix ⊕ = Awareness ✓ = Responsible	Club Executive (President, Treasurer, Secretary, Registrar, etc)	Surf Club Safety Officer	Club Captain	Patrol Captains	Chief Training Officer	First Aid Officer	Competition Captain and Coaches	IRB, Surf Boat, Ski Captains	Gear Steward or Manager	Junior Activities Supervisor	Age Managers	All Members	Parents of Junior Members
Member Injury Reporting	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hazard Identification	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Health and Safety Training	✓	✓	✓	✓	✓	✓	✓	✓	⊕	✓	✓	⊕	⊕
Equipment Storage Effectively	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	⊕	⊕
Return to Surf Duties Management of injured members	✓	✓	✓	✓	✓	✓	✓	⊕	⊕	✓	⊕	⊕	⊕
Club Member Induction	✓	✓	✓	✓	✓	⊕	⊕	⊕	⊕	✓	✓	⊕	⊕
Maintenance, safety and security of Club Premises	✓	✓	✓	✓	⊕	⊕	⊕	✓	✓	✓	⊕	⊕	⊕
Health and Safety Audit of Premises	✓	✓	✓	⊕	⊕	⊕	⊕	✓	✓	⊕	⊕	⊕	⊕

## Responsibilities of all SLS members

- Act responsibly within your limits and with care for yourself and others while promoting a culture of safety and wellbeing.
- Comply with SLS policies at all levels of the organisation.
- Control and provide feedback on hazards identified.
- Follow safety guidelines, SOPs and the safety directions of your patrol captain or club officers.

- Report any injury, illness, near-miss incident or faulty equipment as soon as possible to your patrol captain or relevant club officer.
- Stay informed and up to date with changes within the SLS organisation that impact on your role as a lifesaver.
- Use all equipment safely, correctly and for the job for which it is intended.

SLS members must also participate in annual skills maintenance sessions before 31 December each year (or 31 July in the Northern Territory) to develop and maintain their own expertise, demonstrate they are fit to save a life and maintain SLS award proficiency.

## Environmental management and sustainability

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The beach and aquatic environment are also considered part of a lifesaver's work environment. Currently Australia's coastal environment is experiencing the impacts of climate change, such as heatwaves, sand erosion and inundation from extreme weather conditions. It is also impacted by an increasing number of pollutants making their way into the ocean.

You can help ensure our coastal environment remains clean and safe for yourself, beachgoers and



marine life by adapting to climate change and following the 5 Rs of sustainability:

- Refuse
- Reduce
- Reuse
- Repurpose
- Recycle

You should also dispose of your rubbish responsibly.

## Hygiene

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- [Personal Hygiene](#)
- [Environmental hygiene](#)
- [Personal protective equipment](#)

## Personal Hygiene

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Personal hygiene is important to ensure the safety of yourself and others. Listed below are ways to make sure you meet the highest standards of personal hygiene.

✓ DO

- Always be clean and presentable, e.g., long hair tied back.
- Avoid contact with other people's body fluids, e.g., blood from a victim.
- Cover open cuts or wounds
- Use single-use items when providing resuscitation or first aid if available, e.g., a resuscitation mask.
- Wash your hands regularly, especially before and after activities such as treating a victim, eating or handling garbage.

## Environmental hygiene

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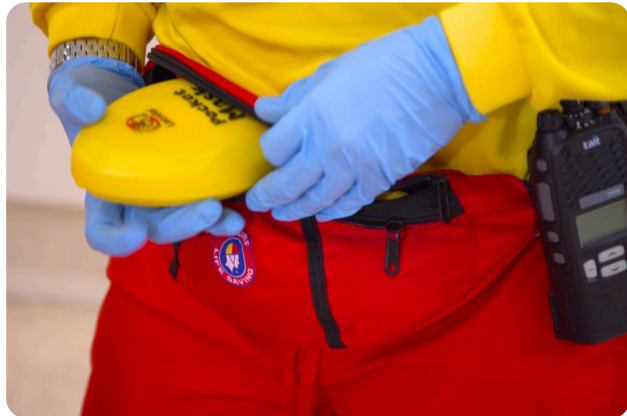


Environmental hygiene is about keeping your workplace clean and tidy to avoid conditions that allow disease-causing bacteria and vermin to thrive. Everyone should:

## ✓ DO

- clean and maintain all work premises and equipment regularly
- control pests and vermin
- follow correct storage and waste removal procedures
- follow all workplace health and safety requirements, e.g., safe food and manual handling
- protect food and water from biological contamination
- use sharps containers for the disposal of needles and sharp objects.

## Personal protective equipment



Personal protective equipment (PPE) should be used by SLS members to further reduce risk during SLS operational activities. Some common examples of PPE used in the SLS operating environment are <sup>[5]</sup> :

- helmets, which are required to be worn by all rescue water craft (RWC) operators and are optional and encouraged for inflatable rescue boat (IRB) operators on lifesaving duties
- lifejackets (also known as a personal flotation device or PFD), which must be used by all powercraft operators and crew
- patrol uniforms (See Patrol uniforms)
- single-use gloves and resuscitation masks
- sunglasses, sunscreen and hats



- wetsuits and long-sleeved shirts.

It is crucial that PPE meets industry standards to ensure the validity of its safety features.

## Workplace injury and illness

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### Common causes of workplace injury and illness

Unsafe work conditions and practices can lead to injury, illness or even death. This is in addition to property, reputation or environmental damage.

## Types of hazards

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Types of hazards	
Type	Description
<b>Obvious</b>	Hazards that are obvious to a reasonable person in the position of that person. <i>e.g. Broken glass on the floor</i>
<b>Hidden</b>	Hazards that are not obvious to a reasonable person in the position of that person. <i>e.g. Communicable diseases</i>
<b>Developing</b>	Hazards that are cumulative and present over a long period of time. <i>e.g. Poorly stored fuel</i>
<b>Acute</b>	Hazards that appear suddenly, have an obvious and severe immediate impact. <i>e.g. Chemical spills</i>
<b>Chronic</b>	Hazards that have a more hidden, cumulative and long-term impact. <i>e.g. Poor manual handling, mental stress and sun exposure</i>

More information about the different hazard categories and how to manage hazards is available in the [SLSA Guidelines for Safer Surf Clubs](#) located in the [SLS Members Area Document Library](#).

## Examples of hazards

The following are examples of common hazards that are a source of potential harm in a lifesaving environment:



## Accidents



An accident is an unexpected event that results in or creates the possibility of an injury or damage to property. Both accidents and near-miss incidents give warning that there is something in a work process that needs to be investigated and possibly changed. Failure to do this may lead to the accident recurring or a more serious accident. All accidents and near-miss incidents should be taken into account and reported to the patrol captain and logged appropriately. Accidents outside duty hours using service equipment should also be recorded by an officer.

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## Fatigue



Fatigue is the state of extreme tiredness. It is a common contributing factor to workplace injuries and tends to be cumulative. Many different physical and/or psychological conditions can cause fatigue, including poor work conditions, anxiety, depression and impaired sleep. Effective treatment for fatigue will depend on its cause. You can manage fatigue using various control measures such as developing healthy sleep habits, eating a healthy diet and doing regular physical activity. Between six to eight hours of quality sleep is recommended in every 24-hour period.

---

## Faulty equipment



Equipment needs to be well maintained so that it is not hazardous. Damaged rescue boards, broken propeller guards on IRB motors and patrol enclosures in disrepair are all examples of hazards. All breakdowns or faulty equipment must be reported and then repaired by a qualified person prior to use.

---

## Hazardous manual tasks



Many manual handling injuries that result from hazardous manual tasks are not caused by a single handling accident, but rather, they build up over a period of time. A hazardous manual task is any task that requires a person to lift, lower, push, pull, carry or otherwise move, hold or restrain any person, animal or thing. Age, posture, level of fitness, body strength, medical history, workplace environment, poor ergonomic design, as well as one's attitude to self-safety are all factors that will contribute over time to a person's risk of injury (especially to their back, hands, arms and feet).

---

## Incorrect storage of equipment



Lifesaving equipment, goods and fuel need to be stored correctly to prevent them from becoming a hazard as well as meeting some legislative requirements, e.g., *Australian Standard AS 1940:2017- The storage and handling of flammable and combustible liquids*. Follow your local SOPs, which may be accessed online via the SLS Members Area Document Library. Good judgement should be used when storing equipment, for example:

- fuel and hazardous substances should always be correctly labelled, stored securely away from children and in accordance with directions on the safety data sheet (SDS)
- heavy items should be stored on the bottom, lighter items on the top
- milk crates and boxes should not be used to support the weight of IRBs, or as shelves or ladders
- storage areas should have strong shelves suitable for the equipment that they are holding.

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## Incorrect use of rescue equipment



Rescue equipment and patrol items should be used only by SLS members and in designated areas. Training areas should be set up with adequate signage and in an area that will not cause harm to the public. SLS members learning new skills such as board paddling or IRB driving must be particularly



careful. Wetsuit cords and long hair should be tucked away where possible to ensure that they do not get caught in any equipment.

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## Organic substances



Organic substances such as food, body fluid, microorganisms, toxins and viruses can present a threat to living organisms, such as humans. The use of PPE such as gloves, masks and safety glasses when providing first aid, resuscitation or preparing food assists in preventing the spread of infectious diseases. Any equipment that comes into contact with bodily fluids should be disposed of correctly (e.g., using sharps containers, hazardous waste bags) or washed and disinfected where appropriate. You should also maintain high levels of personal hygiene.

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## Obstructions



Obstructions can cause harm, with or without direct contact. For example, equipment piled in fire exits or in stairwells may cause a delay in your response to control a fire hazard.

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## Poor attitude

Actions taken as a result of an individual's poor attitude and decisions regarding their safety and that of their fellow SLS members is considered a behavioural hazard. You should always follow organisational

policies and procedures as well as lead by example to promote a culture of safety first.

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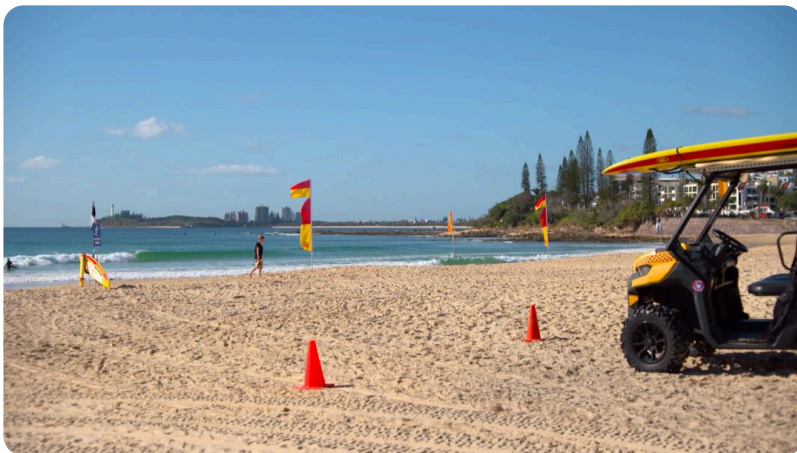
## Spills and slippery surfaces



A spill such as water, food, oils or powercraft fuel on the floor can be hazardous. Rock surfaces and pool walkways may also be very slippery and hazardous, especially when a quick response is needed. Slips, trips and falls result in thousands of preventable injuries every year.

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## Surf environment



Working outdoors for long periods of time can subject you to long periods of sun exposure and extremes of temperature (hot or cold). The surf environment also creates a unique blend of hazards in the form of waves, shallow water and sandbanks, rocks, potholes, marine creatures, aquatic equipment, other surfers or swimmers and rip currents.

# Dangerous marine creatures

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Many interactions with dangerous marine creatures are sporadic and unpredictable, while others are regular threats that require constant risk management.

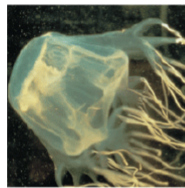
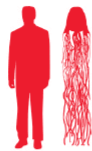
# Tropical Marine Stingers

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The tropical waters north of Bundaberg in Queensland and on through the Northern Territory to Exmouth in Western Australia are home to some of the world's most dangerous marine stingers. These include in particular the Irukandji and the box jellyfish, which have tentacles equipped with millions of nematocysts, or stinging cells, which have a tiny harpoon attached to a venom-filled bulb. These nematocysts are triggered when they come into contact with chemicals found on the skin. The venom injected negatively impacts a victim's heart, nervous system and skin cells.

## Identification

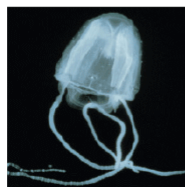
### Jellyfish identification



#### Box jellyfish

The *Chironex fleckeri* species is a large but almost transparent box jellyfish, with a box-shaped bell up to 30 cm in diameter.

They have up to 15 ribbon-like tentacles that arise from each of the bell's four corners (up to 60 tentacles in total). These may contract to about 10 cm or may extend up to 3 m in length.



#### Irukandji

The *Carukia barnesi* species is a small transparent box jellyfish, 1-2cm in diameter, usually not seen. Some newly described species may be larger (up to 15cm). They often have up to four thin ribbon-like tentacles that arise from each of the four corners.

Lifesavers may also inform the public that these box jellyfish are often not far from their food source such as sea lice felt in the water and clusters of salps, which look like crushed glass or ice at the high tide line. The stinger peak season is October to May.

## Risk Management

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The following are examples of control measures that can be taken in order of effectiveness as per the

hierarchy of controls:

- avoid the open ocean during peak stinger season
- discontinue beach activities (beach closure)
- use stinger resistant swimming enclosures (swimming nets)
- conduct stinger drags
- display signage
- wear PPE such as lycra or neoprene full body wetsuits, gloves and neoprene boots
- ensure the availability of vinegar on patrol and in first aid kits.

Swimming nets are used to protect the patrolled area in some tropical waters during the stinger peak season, and the water is constantly tested prior to the start and end of patrol by conducting 'stinger drags' to assess the presence of marine stingers. Refer to your local SOPs for more information about managing marine stingers in tropical waters.



## Actions in the event of a sting

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Pain from a box jellyfish sting is almost immediate and there is a characteristic 'ladder pattern' on a stung area. Death from their sting can occur within 2–3 minutes. Severe generalised pain from an Irukandji sting may occur 5–40 minutes after a sting and you may see a faint red mark develop. Other signs and symptoms as well as treatment of marine envenomation are covered in your first aid training.

## Sharks and crocodiles

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Sharks and crocodiles are ambush predators and opportunistic feeders. There are many types of sharks



around Australia; most pose little threat to humans. Freshwater and estuarine crocodiles are known to inhabit the tidal areas and inland waterways of northern Australia.



Safety advice and risk management regarding sharks and crocodiles aim to avoid encounters with these marine creatures. As a lifesaver you should keep watch for any sign of sharks or crocodiles. You can adopt an elevated surveillance position and wear polarised sunglasses to increase your effective vision over a greater distance. If you are in a region known to have saltwater crocodiles, you should also frequently check for slide marks on the shoreline and maintain surveillance of the water around the red and yellow flags to avoid encounters.

## Risk management

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To reduce the chances of encountering sharks, you should avoid swimming:

- at dawn and dusk
- at river mouths or in murky, discoloured or brackish water
- in or around schools of fish.

Throughout northern Australia there are warning signs placed at access points to waterways where crocodiles might live. Refer to your local government's '*crocwise*' website for more information on how to avoid a crocodile encounter.

## Actions on sighting

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If you sight a shark or crocodile, you should follow your local SOPs and:

### ✓ DO

- request all swimmers leave the water
- record as much detail as possible regarding your sighting, e.g., size, behaviour, presence of fish.

## ✗ DO NOT

- attempt to kill or capture the creature

# Actions in the event of a shark or crocodile bite

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Shark and crocodile bites can result in massive tissue damage and severe blood loss. You want to safely bring the victim to shore as soon as possible to apply first aid as per your training and arrange for advanced emergency care. You should continue to manage risks and work effectively as a member of your patrol team at every stage of a shark or crocodile response plan.

Refer to your local SOPs for more information about actions to take in the event of a shark or crocodile sighting, encounter or bite.



## Manual Handling

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Everyone should follow safe manual handling practices. You may injure yourself, harm others or cause equipment damage if you do not handle and manoeuvre victims or equipment safely. A risk assessment should be done before any new manual handling task to help you minimise the risk of sustaining or aggravating an injury.

A typical workplace injury is to the lower back, caused by incorrect lifting or handling of heavy, awkward or large objects. Heavy items should be transported with the assistance of other people or with the

assistance of devices such as a trolley, trailer, side-by-side vehicle (SSV) or another vehicle. Objects like a surfboat, fully laden IRB, outboard motor and IRB floorboards are particularly heavy and/or awkward, and they require careful handling and manoeuvring<sup>[6]</sup>. Conduct the lifting and carrying of victims by following your training available in the [Rescue module](#) of this manual. The use of team carries and spinal boards is recommended for a victim who is not able to move themselves.

## How to Lift

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<https://www.youtube.com/embed/MWqwY3NqXUw?rel=0>

It is important that the environment or area that you are required to lift in is safe. This will depend upon things such as:

- how far you have to carry equipment or goods
- the size and weight of mobile equipment
- the number of obstructions along the transport route
- the storage method of the equipment
- the terrain you have to negotiate
- where and how equipment is laid out.

Below is a set of steps that describes how to lift correctly and with care. Follow these steps when lifting heavy items on your own or with two or more people.



1. Face in the direction of where you intend to lift.
2. Bend the knees and crouch down, with a straight back.
3. Balance with a wide base of support and take hold of the object securely.
4. Keep the load close to the body wherever possible.
5. One person coordinates and calls the lift if two or more people are lifting.
6. Brace your stomach muscles and, while keeping your back in a neutral position, lift the object using your legs.

Refer to the [SLSA Guidelines for Safer Surf Clubs](#) in the [SLS Members Area Document Library](#) for more information on manual handling.

## Lifting Equipment

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The guidelines below should be followed for heavy surf lifesaving equipment when a 'straight lift and short carry' is required.





<https://www.youtube.com/embed/a4EzZMsV78g?rel=0>

Please be aware that there may be various state/territory regulations that specify lifting and carrying limits.

Refer to the [SLSA Guidelines for Safer Surf Clubs](#) for more information on lifting equipment safely.

### Examples of how to lift SLS equipment

SLS equipment	Safe handling procedures
<b>IRB (unladen)</b>	The hull is to be lifted by a minimum of two people and transported on a trailer by SSV or 4WD to and from beach.
<b>IRB (fully laden)</b>	The hull is to be lifted by a minimum of four people and transported on a trailer by SSV or 4WD to and from beach.
<b>Outboard motor</b>	To be lifted by two people and transported by trolley or similar to and from beach.
<b>Fuel tanks</b>	To be lifted by two people and transported by trolley or similar to and from beach.
<b>Surfboat</b>	To be lifted by a minimum of five people; in many cases it is necessary to have six or more. To be transported by rollers only for short distances of 50 m if flat terrain. If hills need to be negotiated, then an SSV or 4WD should be used.
<b>Other objects– signs/poles, tents and rescue boards</b>	These items should also be transported with safe handling procedures in mind. A risk assessment should be done prior to embarking on any new manual handling task.

# Personal Injury

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All surf lifesavers and lifeguards are entitled to make a claim under workers compensation or equivalent insurance in the event of sustaining a personal injury while performing their duties.

Members injured in the course of their duties need to follow their surf lifesaving club or service's injury management and reporting processes. Your club safety officer (or elected WHS representative) oversees these processes. Although each state/territory in Australia has a slightly different reporting system in place, the end result is the same.

## Personal Injury Reporting

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## STEP 1

Fill in the appropriate injury report form. Injured SLS members must report and record incidents, noting any hazards that caused their injury. Strategies can then be developed to prevent the injury from occurring again.



## STEP 2

Give the form to the club safety officer (WHS representative). Your SLS club secretary, captain or president, or a separate member altogether may be the person who bears the formal title of 'club safety officer'<sup>1</sup>.



## STEP 3

If appropriate, fill in a worker's compensation form. If your injury is a significant one, you may be eligible to complete a worker's compensation form.

If your injury is a significant one, you may be eligible to complete a worker's compensation form. Significant injuries are those which:

- require hospital admission or ongoing medical management
- interrupt your paid working life or school/university studies.

Your club safety officer will provide you with the necessary information to complete this form and assist you with your application.

Any member recovering from a significant injury or illness may not be able to return to duties or



participate in surf sports activities until the club safety officer receives a final 'fit to return to duties' declaration form (aka 'certificate of capacity') from their treating medical practitioner.

Refer to the [SLSA Guidelines for Safer Surf Clubs](#) for more information about personal injury management and return to surf duties.

## Physical Health

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Being physically active and limiting your sedentary behaviour every day is essential to develop and maintain your overall physical and mental wellbeing.

The benefits of regular physical activity include:

- creating opportunities for meeting new people and socialising
- enhancing overall quality of life
- helping build and maintain healthy bones, muscles and joints to reduce the risk of injury
- helping prevent or manage mental health problems
- reducing the risk of many preventable diseases, including type 2 diabetes, heart disease and some cancers.

The Physical Activity and Sedentary Behaviour Guidelines<sup>[7]</sup> produced by the Australian Department of Health recommends the following advice for adults.

- Be active most days every week—every day is preferable.
- Accumulate 150 to 300 minutes of moderate intensity physical activity or 75 to 150 minutes of vigorous intensity physical activity, or an equivalent combination of both moderate and vigorous activities, each week.
- Do muscle strengthening activities on at least 2 days each week.

The full guidelines also recommend minimising and breaking up long periods of sedentary behaviour, such as sitting. Fortunately, the surf lifesaving environment provides the perfect background for those wanting to adopt a healthy lifestyle.

# Fitness levels for lifesaving/lifeguarding

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It is important to maintain an appropriate level of physical health and fitness to ensure the safety of yourself as well as those for whom you hold a duty of care. SLSA follows the minimum standards of fitness testing set out by the International Life Saving Federation (ILS)[\[8\]](#). Each patrolling member must take part in an annual skills maintenance session to demonstrate they meet the minimum fitness levels for duty.

SLSA has special provisions that allow those with permanent and limiting disabilities to take part in varying levels of activity. SLS members who wish to continue to undertake lifesaving activities while pregnant should refer to [SLSA Member Support Guideline](#) available in the [SLSA Members Area Document Library](#).

Speak with your patrol captain before commencing patrol, or your trainer before commencing training activities, if you have any concerns relating to your level of fitness to perform lifesaving activities.

## Alcohol and Drugs

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Alcohol, drugs and aquatic activities do not mix. Although the effects vary from person to person, there are some common effects that place both lifesavers and victims at risk.

- Depressants such as alcohol and cannabis can affect concentration and coordination. They can lower inhibitions and slow down one's ability to respond to emergency situations. They are also

known to cause drowsiness, vomiting, unconsciousness and even death.

- Stimulants such as amphetamines, nicotine and ecstasy are known to cause anxiety and panic attacks, seizures, stomach cramps, aggression and paranoia.

As part of your duty of care, you should minimise alcohol intake the night before duty, as blood alcohol concentration remains high for 12 to 20 hours after the last drink. You should also ensure that you are not under the influence of any drugs that may affect your performance while on duty.

For more information about preventing and minimising the harm caused by alcohol and other drugs, refer to the [Alcohol and Drug Foundation](#).

## Cigarette Smoking

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Smoking tobacco is a major risk factor linked to several chronic diseases, including cardiovascular disease, lung disease and many known cancers. The associated respiratory distress caused by the irritants in cigarette smoke and secondhand smoke will drastically affect your health and ability to perform a rescue.

Smoking is banned in many public spaces including parks and beaches in some states. SLSA does not allow members to smoke while undertaking their lifesaving duties, participating in special events and other official activities such as coaching, officiating and attending meetings.

All SLS work and storage areas, vehicles and craft are smoke-free zones.

# Diet and Hydration

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Eating a healthy and well-balanced diet can help give you the physical and mental energy to perform in the role of a lifesaver.

There are many sources of dietary advice and many surf lifesaving clubs have qualified sports coaches who can provide basic dietary guidance. Current Australian dietary guidelines from the National Health and Medical Research Council can be found at [eatforhealth.gov.au](https://eatforhealth.gov.au). Those with special needs should seek advice from a qualified nutritionist.

Dehydration of as little as two per cent loss of body weight results in impaired physiological responses and performance<sup>[9]</sup>. Lifesavers often patrol in hot conditions, so maintaining hydration is important for them in keeping well, and in preventing fatigue. If you are thirsty, you are already dehydrated and need to replace fluids and electrolytes quickly. Other signs and symptoms of dehydration that affect your ability to rescue include cramps in any muscle, headaches and nausea.

Water is the primary replacement fluid; however, rehydration fluids and sports drinks are suitable in moderation. Current recommendations of water intake by life stage and gender can be found at [nrv.gov.au/nutrients/water](https://nrv.gov.au/nutrients/water).

## Medication

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Medications can sometimes cause unwanted or unexpected side effects, which may influence your ability to participate in a rescue. You can try to avoid side effects by taking medicines according to their instructions. Speak with your doctor if anything worries you after taking your medicine.



# Sun Protection

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## Dangers of exposure to Sun

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Exposure to the ultraviolet (UV) radiation in natural sunlight is a major cause of:

- eye damage such as cataracts and pterygium
- general skin damage
- skin cancers
- sunburn.

The very nature of SLS activities means that you are exposing your body to the sun and the associated health risks. You should have your skin checked by a doctor at least every 12 months, or more frequently if:

- your exposure is very high
- you notice new spots or changes to long-standing moles
- your doctor recommends frequent visits due to your skin type or history.

You should also set a good sun-safe example for younger SLS members and the community in general to follow.

Skin cancer is preventable, and melanomas may be cured if detected and treated early enough. Checking your skin regularly and knowing what to look for could save your life. [Cancer Council Australia](#) has a useful guide outlining [how to check for signs of skin cancer](#), which includes the ABCDE melanoma

detection guide. SLSA recommends following these guidelines and contacting your doctor as soon as possible if you think you have any of the warning signs of skin cancer.

Guidelines and scientific literature referred to in this section are derived from [Cancer Council Australia](#) and [Melanoma Institute](#).

# Preventing Sun Damage

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As part of your duty of care to yourself, you should take all measures to protect yourself against the sun's deadly and dangerous UV radiation. As indicated in the SLSA Environmental Factors Guideline for sun safety, important prevention measures can be remembered by the six Ss:

## 1. Seek shade



- Stay in the natural or man-made shade whenever possible.
- Use SunSmart's Shade Audit Tool that allows you to assess the quality and need for shade at various sites within your location.

## 2. Slip into protective clothing





- Protect yourself with shoes and loose-fitting clothing made of UPF 50+ close-weave material. Start with long patrol shorts and a patrol shirt with long sleeves and collar or an appropriate rash shirt or wetsuit if in or on the water.

### 3. Slop on some sunscreen



- Apply sunscreen at least 20 minutes before going out into the sun and reapply it every 2–3 hours, or more often after swimming, sweating or exercise.
- Physical sunscreens such as Zinc cream are good to use on the lips and other small, sensitive areas.
- Remember, never use sunscreen to extend the time you spend in the sun or as your only form of sun protection.
- Use a high-protection (SPF 30+ or SPF 50+), broad-spectrum, water-resistant sunscreen on the face, neck and other areas of the skin that cannot be covered with clothing.
- Use a different type of sunscreen for the skin on your body and your face.

## 4. Slap on a hat



- Hats should protect your face, head, neck and ears from the sun's UV rays.
- Ideally hats should be made of a close-weave material.
- Wear a wide-brimmed hat with a non-reflective underside of the brim (minimum brim width of 8 cm). Alternatively wear a 'legionnaire' style hat with side pieces.

## 5. Slide on some sunglasses



- Use only sunglasses that conform to Australian Standards for eye and face protection—block 100 per cent of the sun's UV rays and have an eye protection factor ('EPF') of 10 at least.
- Sunglasses should also be curved or have side pieces to prevent UV rays entering from the sides.

## 6. Study the UV index

- Take care to avoid sunshine when the UV index is 3 or above (as indicated by the [Bureau of Meteorology](#)).



- UV radiation levels are highest during the middle of the day, which is often when there are more beachgoers.

**Note:**

- Remember to protect yourself from the sunlight reflected from the surfaces of the water and sand.
- Do not break any blisters or apply lotions, ointments, creams or powders other than hydrogel to sunburnt skin.
- Do not use ice or ice water to cool a sunburn as further tissue damage may result.
- If your skin shows signs of sunburn ('radiation burn') while on patrol, seek shade and cool your sunburnt skin with cool running water for 20 minutes while also drinking small amounts of clear fluids. Drink extra fluids and moisturise to stay hydrated in the days following a sunburn.
- Seek medical advice if you experience blistering near 10 per cent of your body or if you are in doubt.

## Mental Health

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Good mental health ('social and emotional wellbeing') is important for your wellbeing and resilience and will help you perform effectively in your role as a lifesaver.

Mental ill-health can result from relationship issues and life stressors, such as work-related stress or a critical incident, and may affect your capacity to manage your day-to-day life to the best of your ability. It is not always visible, and a person may experience significant mental health consequences including

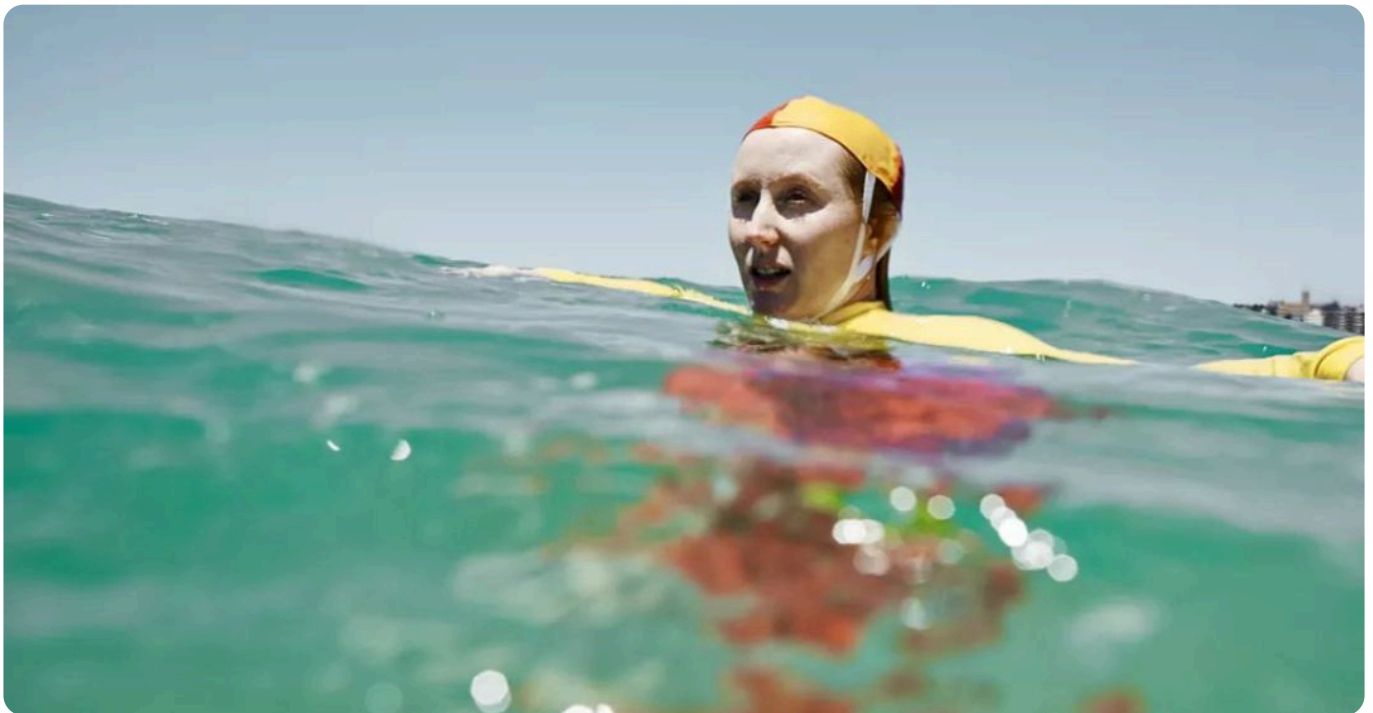
social isolation, loss of relationships, unemployment, homelessness, financial stress or discrimination and possible diagnosed mental health issues.

In addition to critical incident support, Surf Life Saving promotes many preventive factors that can help you maintain good mental health such as positive relationships, physical activity and a good diet, feeling connected to community and culture, and having a sense of purpose.

SLS members should communicate positively about good mental health as well as mental health problems, which can affect people of all ages and backgrounds.

## Work-related stress

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Lifesavers must be aware of the psychological hazards that can lead to elevated levels, or prolonged periods, of work-related stress while undertaking their volunteering duties. Work-related stress can increase the risk of both psychological and physical injuries. Promoting a culture of safety and wellbeing includes ensuring lifesavers care for their own psychological wellbeing, as well as that of others.

Examples of psychological hazards in the lifesaving environment that can be contributing factors to work-related stress include:

- bullying and harassment, disrespectful interactions
- lack of support and/or lack of positive workplace relationships
- poor organisational management
- poor work-life balance
- remote or isolated work
- substandard environmental conditions
- traumatic events.

# Signs and symptoms

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Some common signs and symptoms of work-related stress you may notice in yourself or others include:

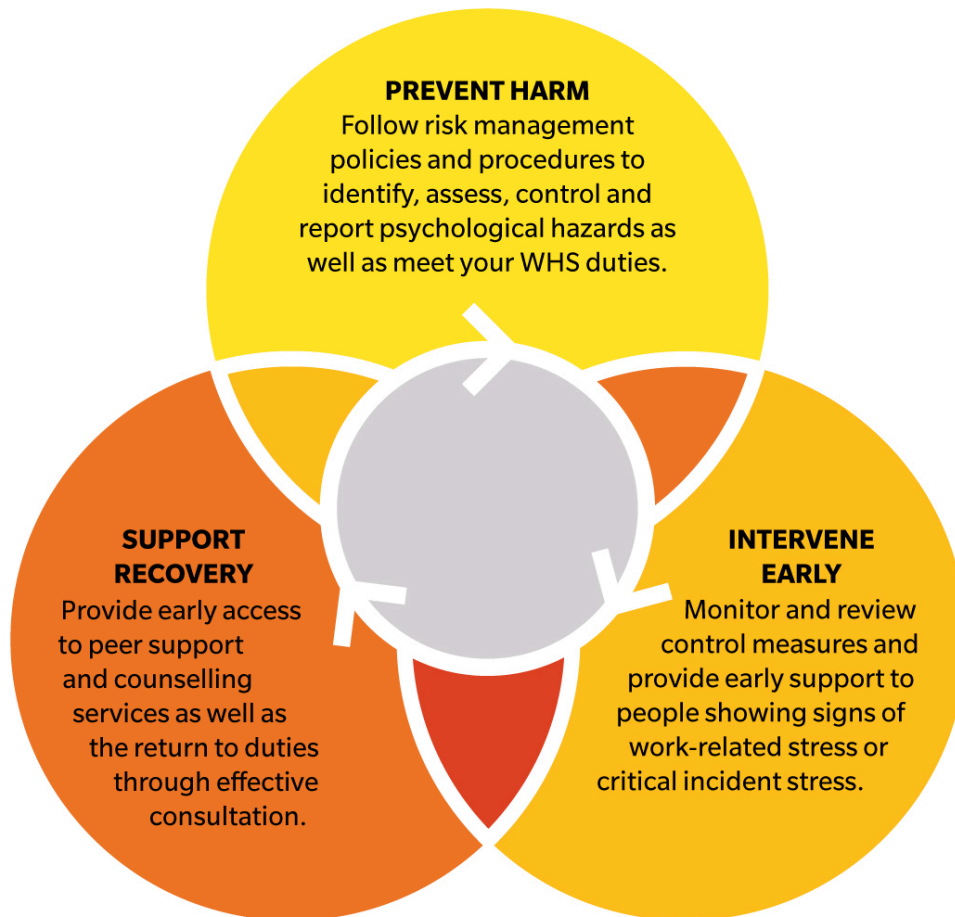
- becoming aggressive, irritable, socially isolated or withdrawn
- experiencing panic or anxiety
- feeling tense, overwhelmed, unwell or unsafe
- frequently arriving late or avoiding work
- inability to focus or complete tasks
- out-of-character changes in behaviour or appearance
- racing heart or a tightening of the chest
- sleep disturbance
- weight or appetite changes.

Refer to the [SLS Member Safety Brochure](#) for more examples of signs and symptoms.

# Management of work-related stress

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Psychological hazards that lead to work-related stress are managed using the same risk management process applied to physical hazards. Safe Work Australia recommends a systematic approach to mental health and safety.



There are many coping strategies that you can adopt to prevent harm and support recovery from work-related stress. Not all strategies work well for everyone, so it is important to find and apply the strategies that work best for you. The following are examples of actions you may take to support recovery.

For yourself, you should:

- acknowledge how you are feeling
- alternate regular periods of exercise, sleep and relaxation
- eat well-balanced meals
- engage in social activities and positive thinking
- feel safe to talk about your feelings with people you trust
- focus on the present
- keep to a daily routine and regular schedule
- perform slow-breathing exercises
- spend time with your significant others.

For your team members, their friends and families, you should:

- ask what you can do to help
- be available to listen patiently and non-judgementally
- let them know you want to understand and that you do not take emotional outbursts personally



- reassure them that recovery is possible, and they can safely express their feelings with you.

The following are examples of actions you should avoid to support your recovery as well as prevent harm:

## ✗ DO NOT

- avoid your feelings
- compare your stress reactions to others
- increase amounts of alcohol, caffeine, sugar or other stimulants
- make big life changes or decisions
- take on too many responsibilities
- tell stories about other incidents.

## Critical incident stress



The nature of lifesaving activities means that lifesavers may be exposed to critical incidents. Critical incidents are traumatic events that may be sudden, overwhelming, threatening, drawn out or repeated. Critical incident stress (CIS) is a natural response to the emotional and physical impact of exposure to a critical incident. Understanding and supporting those affected by CIS can make a positive difference to their social and emotional wellbeing as well as promote a safe surf lifesaving club environment.

Examples of traumatic events that may lead to critical incident stress may include the recovery of a drowned person, the administration of major first aid treatment, performing resuscitation, or a perceived threat to the lifesaver's own life in challenging surf conditions.

SLS members that may be more susceptible to harm from exposure to critical incidents include:

- new or young members
- members who are currently experiencing difficult personal circumstances
- members with an existing disability, injury or illness
- members previously exposed to a traumatic event
- members performing in roles repeatedly exposed to traumatic events.

## Signs and symptoms

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Signs and symptoms of critical incident stress are very similar to the signs and symptoms of work-related stress, but may also include:

- emotional outbursts, including fear, anger, sadness or shame
- feelings of helplessness
- flashbacks
- hyper-vigilance.

Refer to the [SLS Member Safety Brochure](#) for more examples of signs and symptoms.

# Management of critical incident stress



Critical incident stress management helps people deal with the natural emotional and physical impact of exposure to a critical incident or an accumulation of smaller incidents. The emotional and physical signs and symptoms of CIS can happen immediately after the event or after a period of time. It is important to monitor and support both yourself and your fellow members over time following a critical incident. Not all people will experience CIS, however it is helpful to have a broad knowledge of what it is, should it happen.

Psychological first aid (PFA) helps people cope with their initial distress in response to a critical incident. It is based on an understanding that people who experience trauma may experience a range of emotional, psychological, behavioural or physical responses, and that some of these responses might interfere with their ability to cope.

PFA is an appropriate approach to use with people who have directly experienced or witnessed trauma, including lifesavers and other emergency response service workers. It includes practical strategies to ensure a calm, compassionate and supportive environment that promotes psychological recovery after trauma. It is not a debrief or counselling and does not seek out details of the traumatic experience. Lifesavers should remember to respond to fellow members and others who have directly experienced or witnessed a traumatic event with compassion and kindness, and provide a calm, caring and supportive environment. This can be achieved by applying the basic action principles of psychological first aid and maintaining appropriate confidentiality.

**Basic action principles of psychological first aid****A Assess and ask**

- Assess for safety, urgent physical needs and serious reactions.
- Ask for the person's needs and concerns.

*e.g.*

- *Ensuring the environment is safe*
  - *Checking in with the person as to what their needs and concerns are*
- 

**B Be**

- Be attentive.
- Be respectful.
- Be aware.

*e.g.*

- *Allowing people space to collect their thoughts*
  - *Communicating respectfully*
  - *Being aware of non-verbal communication.*
- 

**C Comfort and coping strategies**

- Comfort the person.
- Help them to use their coping strategies.

*e.g.*

- *Comforting the person with your reassuring presence*
  - *Communicating effectively what to expect next*
- 

**D Do**

- Do address any practical needs.
- Do link the person with loved ones and other support options.

*e.g.*

- *Providing water, shade, warmth or access to bathrooms*
  - *Helping the person to call their friends or family*
-



**E End/Exit strategy**

- Exit when the person is with their loved ones or other support options.
- End the scene by taking time for your own self care.

*e.g.*

- *Leaving a beachgoer with their support person(s) or paramedics and recommending they speak with a mental health professional or an SLS peer support officer*
  - *Leaving the SLS member connected with their support person(s) or patrol captain and the SLS Member Safety Brochure*
  - *Reading the SLS Member Safety Brochure and applying coping strategies outlined in this manual*
  - *Speaking with a mental health professional*
- 

For more information on PFA, refer to the [World Health Organisation](#) or your local governmental health department. Some surf lifesaving clubs also offer peer support programs that SLS members can access for more information and training on PFA.

# Critical incident on patrol

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Immediately after an incident, your patrol captain will apply the principles of psychological first aid to review the safety and wellbeing of patrol members. All SLS members involved in a critical incident are encouraged to apply the same principles.

An available club, peer support or duty officer should invite questions, discuss issues of concern, remind SLS members of support options available to them and inform those involved of what to expect next.

## Operational debrief

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An operational debrief is a structured session for SLS members carried out by a duty officer. It is usually held 2-3 days following an incident. During this session, you can expect a duty officer to:

- ask for feedback to improve operations in similar future situations or incidents
- gather documentation for the historical record or planning purposes
- identify what happened as well as the causes and consequences

- offer additional information about natural reactions to critical incidents and advice on critical incident stress management
- refer members who require additional assistance with critical incident stress management to a mental health professional.

## Mental health conversations

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Often the road to recovery starts with a conversation.

The following steps can help you to provide early support and connect with a fellow SLS member (or significant other) showing signs or expressing symptoms of work-related stress or critical incident stress.

1. Ask—choose a relatively private and informal time and ask them if they are OK.
2. Listen—take what they say seriously and do not judge them or rush the conversation.
3. Encourage action—ask what self-help actions they want to take; be supportive.
4. Check in—ask how they are going every few days.

For more information on how to start a conversation, refer to the [RUOK](#) website or consider taking a Mental Health First Aid course.

# Support services

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If you or another SLS member shows or experiences persistent signs and symptoms of work-related or critical incident stress, you should talk to your local lifesaving support network and peer support officer or contact your SLS state centre where confidential counselling can be arranged. This is similar to an employee assistance program ('EAP') that many workplaces use.

There are also several organisations that provide free and confidential mental health services if you are feeling depressed, stressed or anxious.

- Lifeline: 13 11 14, [lifeline.org.au](https://lifeline.org.au)
- MensLine: 1300 78 99 78, [mensline.org.au](https://mensline.org.au)
- Kids Help Line, 1800 551 800, [kidshelpline.com.au](https://kidshelpline.com.au)
- Suicide call back service, 1300 659 467, [suicidecallbackservice.org.au](https://suicidecallbackservice.org.au)

These organisations can also assist you with more information and advice about mental health:

- [Beyond Blue](https://beyondblue.org.au)
- [Heads up](https://headsup.org.au)
- [SANE Australia](https://sane.org.au)
- [Black Dog Institute](https://blackdoginstitute.org.au)

# Member protection

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SLSA is dedicated to providing a safe and nurturing environment for all participating in surf lifesaving



activities and is committed to being an inclusive organisation open to all who wish to participate regardless of age, gender, disability, cultural and linguistic background; or sexual orientation.

# Bullying, harassment and discrimination

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All SLS entities regard discrimination, bullying and harassment in all forms as unacceptable and SLSA takes all reasonable steps to make sure that this does not occur in surf lifesaving clubs.

## Definitions

- **Discrimination** – happens when there is adverse action because of a person's characteristics, such as their age, race, religion or sex.
- **Bullying** – is repeated and unreasonable behaviour directed towards an individual or group that creates a risk to their health and safety.
- **Harassment** – is any form of behaviour that you do not want, offends, humiliates or intimidates you, or creates a hostile environment.

SLS members need to take steps such as those referenced in SLSA policies, guidelines and procedures relating to member protection and social media to prevent bullying, harassment and discrimination from occurring and respond quickly if they do by following the appropriate reporting procedures. There are also legal and moral obligations you should consider not to breach Australia's national workplace anti-bullying and discrimination laws.

Not all behaviour that makes someone feel upset or undervalued is bullying or harassment. If you would like to know more about what is and what is not discrimination, bullying and harassment, as well as what your rights are and the rights of other SLS members, you may also refer to:

- the Australian Government's Fair Work Ombudsman ([fairwork.gov.au](https://www.fairwork.gov.au))
- the [Australian Human Rights Commission](https://www.humanrights.gov.au)
- relevant [laws that operate at a state and territory level](#)
- [Safe Work Australia](#)
- [SLSA Policy 6.05 Member Protection](#).

# Safeguarding children and young people

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SLS is committed to the safeguarding of children and young people who are often more susceptible to abuse and harm.

*SLSA Policy 6.05, clause 3.5 'Codes of Conduct'* outlines the SLSA codes of conduct that apply to all SLS members. The [SLSA Safeguarding Children and Young People Guidelines](#) supports members to enact this policy and identify inappropriate behaviours that do not uphold the codes of conduct.

You have a responsibility to report breaches of the SLSA codes of conduct and any child safety concerns via the online *Child Protection Report Form* or *Complaint and Grievance Form* available at [complaints.sls.com.au](https://complaints.sls.com.au). Reports can remain anonymous, are confidential and may result in disciplinary or criminal action.

SLSA has developed the *SLS Safeguarding Children and Young People (SCYP)* program, which provides resources and online awareness training on the SLSA codes of conduct for dealing with children and young people, behavioural indicators of abuse and neglect, and how to make a report regarding any inappropriate behaviour. All members are encouraged to undertake the online SCYP awareness training available at [sls.com.au/childsafes](https://sls.com.au/childsafes)

## Raising concerns

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Everyone involved in SLS is encouraged to voice their concerns regarding the safety and wellbeing of

themselves and other SLSA members. Concerns may be raised in the form of a complaint or report.

Most concerns are initially raised and dealt with at club or branch level, however, there may be some situations in which it is more appropriate to raise a complaint or report with your SLSA state centre.

Refer to the [SLSA Complaint Resolution Policy](#) (SLSA Policy 6.06) in the SLS Members Area Document Library or at [sls.com.au/childsafes](https://sls.com.au/childsafes) for more information on types of complaints as well as guidelines for each step in the complaints process.

The forms used to raise concern can be accessed at [complaints.sls.com.au](https://complaints.sls.com.au).

## Module 2 – Reflection Questions

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You are now ready to complete the eLearning component of your course for this module. You can access the eLearning through the [SLS Members Area](#).

You should also test your knowledge by reading through the following reflection questions. If you find yourself answering 'no' or 'not sure' to any of them, you may wish to speak with your trainer for clarification.

1. Do you know what your responsibilities are in relation to [work health and safety](#)?
2. Are you aware of the physical and psychological [hazards](#) which you may encounter in your role in Surf Life Saving?
3. Would you know what to do if you had a safety concern or [sustained an injury](#) while volunteering?
4. Do you know the signs and symptoms of [mental ill-health](#) and would you know what to do if you observed these in yourself or others?
5. Are you aware of Surf Life Saving's [Member Protection Policy](#) and the information it contains?

# Module 3 – Radio Operations

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- [Radio Equipment](#)
- [Radio Transmissions](#)
- [Radio protocols](#)
- [Incidents and emergencies](#)
- [Radio Maintenance](#)
- [Battery Charging](#)
- [General Information](#)
- [Module 3 – Reflection questions](#)

## Radio Equipment

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Radio communications provide a quick, simple and efficient means of obtaining the assistance, equipment or information needed during lifesaving operations. SLSA entities maintain a variety of radio systems, and additional local knowledge of basic operating procedures is an important supplement to this module.

## Radio Basics

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**Frequency (bands)** – frequency waves are divided into bands with conventional names. Common frequency bands in SLS are; very high frequency (VHF, 30 – 300 MHz) and ultra-high frequency (UHF, 300 – 3000 MHz). SLS uses different frequency bands depending on coverage requirements. Each SLS state radio network may use a single or combination of frequency bands.

The use of some frequency bands is for commercial use only and requires a licence from the Australian Communications and Media Authority (ACMA). Using unlicensed or incorrect frequencies may result in penalties.

**Analogue radio** – analogue radio transmits radio waves in amplitude modulation ('AM') or frequency modulation ('FM') by a signal. Older SLS radio networks and VHF marine radio use analogue radio technology.

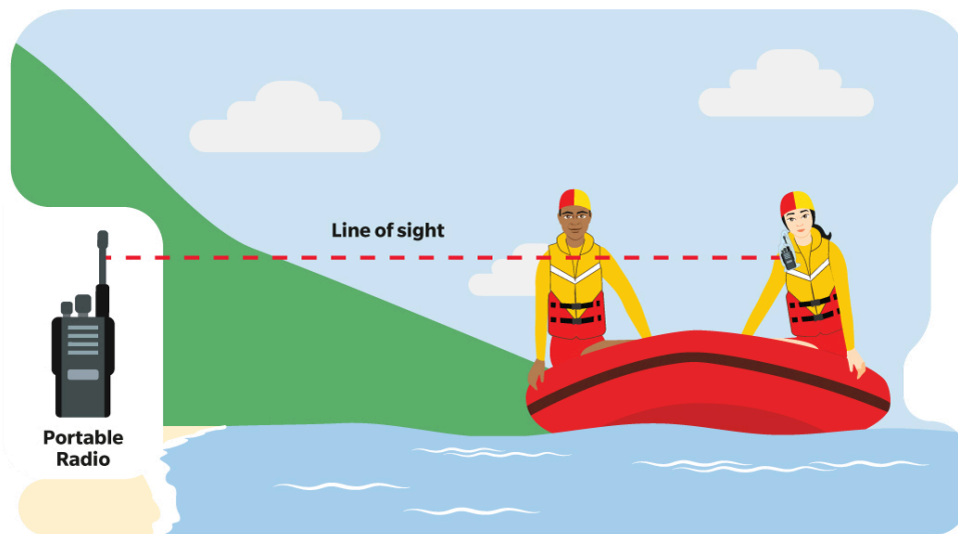
**Digital radio** – digital radio provides greater voice clarity and eliminates unwanted background noise. Most SLS and government radio networks use digital radio technologies. Digital radio networks also support other functionality like GPS tracking.

**Channel** – a channel is a frequency (either simplex or duplex) programmed into a radio that is used by SLS or other agencies to communicate with each other. Each SLS branch or state centre may have different channel configurations.

**Simplex channel** – a simplex channel sends information in one direction at a time, and may be reversible. The transmitter and receiver are operating on a single (or the same) frequency. You cannot



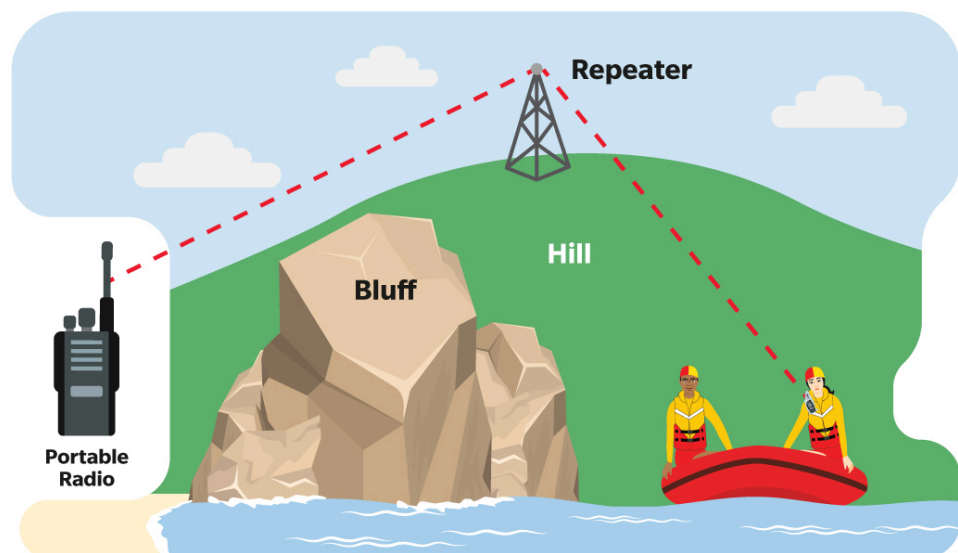
transmit and receive radio transmissions simultaneously on a simplex channel. Simplex channels are limited to line-of-sight communications.



*Simplex communication*

**Duplex channel** – a duplex channel uses a pair of frequencies consisting of one to receive and another to transmit. Duplex channels are used mainly as repeater channels and cannot be used for simplex or direct communications.

**Repeaters** – repeaters receive transmissions on one frequency and transmit on another (or second frequency). They are fixed transceivers that receive line-of-sight signals and transmit them to broaden the radio coverage. Generally speaking, the higher up a repeater is located (e.g., on a hill), the further a message can be re-transmitted.



*Duplex communication*

**Network** – a radio network is a number of fixed and mobile repeaters linked together to cover a larger area. A network may service a SLS branch, geographic region or even an entire state.

**Station** – a station relates to the call sign of a particular radio user, group of users or SLS entity.

Check your SLS state centre SOPs regarding the specific radios, radio network and channels used at your surf lifesaving club or service.

## Types of Radios

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The common types of radio equipment used are:

- **portable radios** – an all-in-one radio with antenna, speaker, microphone and battery. Portable radios may be carried by hand, clipped on to clothing, or secured in a waterproof pouch or harness. Portable radios are often low power transmissions and have less coverage than a mobile radio.



- **mobile radios** – usually mounted in a radio room or a vehicle. They are capable of sending more powerful transmissions and have larger external antennas. They may work in areas where a portable radio does not work and are often referred to as 'base sets'.



# Your Radio

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You will need to become familiar with the radio units used in your local lifesaving club or service.

Make sure you can identify the following:

- antenna
- battery or power supply indicator
- channel selector
- inbuilt microphone (or speaker microphone)
- on/off switch
- 'press to talk' (PTT) button
- volume control.



Some radios may have additional features such as:

- dual watch (ability to monitor two channels)
- keypad lock
- roaming (automatically select the strongest repeater)
- scan.

It is vitally important that you protect radio equipment from water, sand, heat, shock (drop/impact) and theft. Refer to your local SOPs for procedures on how to protect your lifesaving club or service's radio.

# Surf Life Saving Communication Centre



Each SLS state centre has a surf lifesaving communication centre. These vary in name depending on your location and examples include SurfCom, State Operations Centre and LSV Comms.

The main roles of these communication centres are to:

- assist with the coordination of major incidents when several lifesaving services are involved
- gather and record operational information
- liaise with other emergency services
- provide general information to all lifesaving services.

These communication centres can be contacted by using your local radio network or by telephone. Check your SLS state centre SOPs regarding your communication centre.

For simplicity in this manual, SurfCom is used to refer to a surf lifesaving communication centre.

SurfCom communications may be recorded as accurate recordings of all actions and orders is essential to:

- ensure accountability for the exercise of authority and the use of resources
- facilitate investigations (including coronial and criminal)



- maximising learning through debriefing and subsequent training.

## Radio Transmissions

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Radios need to be operating on the same channel for communication to occur.

Only one radio operator can transmit on a channel at a time, so you will need to take it in turns speaking in order for messages to be transmitted and received effectively.

## Radio Technique

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### Good radio technique



#### ✓ DO

- ensure that the channel is not in use before transmitting your message
- ensure you are clear of obstructions that may block your radio signal, e.g., thick concrete walls or sand dunes
- ensure the antenna of the portable radio is as vertical as possible at all times (always point it to the sky)
- hold the portable radio, or the microphone from a mobile radio, approximately 10cm from your mouth and to the side
- press and hold the PTT button for 2 seconds before speaking clearly to transmit your message
- release the PTT button once you have finished your message
- remain stationary when transmitting if possible, as running to an incident while trying to transmit

can make it difficult for other stations to understand your message

- shield the microphone when talking in high noise and windy areas
- speak as if you were talking to someone next to you
- think about radio procedures before transmitting as well as what you are going to say, e.g., include call signs, prowords and other radio terminology wherever possible.

## Poor radio technique



### ✗ DO NOT

- carry a radio by the antenna or touch the antenna while the radio is in operation
- expect an immediate reply from a powercraft operator if they are in the surf zone or performing a rescue
- hold the radio like a mobile phone as you will not be speaking into the microphone
- press the PTT button when another station is transmitting, as you may interfere with that transmission
- yell into the radio even if there is a lot of noise around as this may cause distortion and make your message unintelligible.

## Interruptions to transmissions

A radio network may become unavailable for a number of reasons, including power failure or faulty equipment. If you're unsure about your radio's operation, you may use the following troubleshooting checklist:

### ✓ DO

- Check that the radio is switched on and the correct channel is selected.
- Perform a radio check to ensure that the problem is not isolated to your radio (see Radio checks).
- Change locations and try again.
- Report the issue to your patrol captain if the problem persists.

As a backup, phones may be used to contact SurfCom and other lifesaving or emergency services.

## Prowords

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You may hear or use procedural words ('prowords') when operating a radio. Prowords are a single word or phrase with a common meaning and provide a quick and simple way to keep transmissions short. Prowords should be used where possible.

Prowords	
Proword	Functional meaning
Over	I've finished my message and am handing over to you for a reply.
Go ahead	Go ahead with your message.
Stand by	Stand by for more information while I do something. Other stations may transmit.
Break	Wait for my reply while I break to call another station, e.g., SurfCom.
Roger	I understand.
Wilco	I understand and will go do what you have asked me to do.

<b>Say again</b>	Please say your message again.
<b>Correction</b>	The correct information will follow after I say 'correction'. An error has been made.
<b>Affirmative</b>	'Yes' or 'Permission granted'.
<b>Negative</b>	'No' or 'Permission denied'.
<b>Out</b>	I am getting out of this conversation. End of conversation, network is clear and free for use.

## The NATO phonetic alphabet

The NATO phonetic alphabet is an internationally agreed system for pronouncing letters and numbers in a radio transmission.

Letters are pronounced as a word and numbers are pronounced individually.

Phonetics are a useful tool for ensuring clear communication on a radio and spelling out words or codes.

NATO phonetic alphabet		
Letter	Spelling	Pronunciation
A	Alpha	AL FA
B	Bravo	BRAH VOH
C	Charlie	CHAR LEE
D	Delta	DEL TAH
E	Echo	ECK OH
F	Foxtrot	FOKS TROT
G	Golf	GOLF
H	Hotel	HOH TELL
I	India	IN DEE AH
J	Juliet	JEW LEE ETT
K	Kilo	KEY LOH
L	Lima	LEE MAH



<b>M</b>	Mike	MIKE
<b>N</b>	November	NO VEM BAR
<b>O</b>	Oscar	OSS CAH
<b>P</b>	Papa	PAH PAH
<b>Q</b>	Quebec	KEY BECK
<b>R</b>	Romeo	ROW ME OH
<b>S</b>	Sierra	SEE AIR RAH
<b>T</b>	Tango	TANG GO
<b>U</b>	Uniform	YOU NEE FORM
<b>V</b>	Victor	VIC TAH
<b>W</b>	Whiskey	WISS KEY
<b>X</b>	X-ray	ECKS RAY
<b>Y</b>	Yankee	YANG KEY
<b>Z</b>	Zulu	ZOO LOO

## Call signs

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Call signs uniquely identify each station on a radio network. A number of standard call signs exist.

Standard call signs	
Standard	Used for
<b>SurfCom (or similar)</b>	Contacting the SLS communication centre for your state/territory. <i>e.g. SurfCom</i>
<b>All stations</b>	Everyone on the network. <i>e.g. All call signs across all surf lifesaving clubs on the network</i>
<b>Patrol</b>	Patrol captain (or next available patrol member). <i>e.g. Venus Bay patrol</i>
<b>Roving</b>	A roving patrol. <i>e.g. Portsea roving</i>
<b>Outpost</b>	An outpost patrol. <i>e.g. Carlton Park southern outpost</i>
<b>IRB</b>	Inflatable rescue boat. <i>e.g. Denmark IRB</i>
<b>SSV</b>	Side-by-side vehicle. <i>e.g. Yeppoon SSV</i>

<b>Tower #</b>	Surveillance tower. <i>e.g. Tower one</i>
<b>Offshore #</b>	Offshore rescue boat. <i>e.g. Offshore rescue boat two</i>
<b>Support Ski #</b>	Personal watercraft (jet ski). <i>e.g. Support ski six</i>
<b>RWC #</b>	Personal watercraft (jet ski). <i>e.g. RWC six</i>
<b>Wave runner #</b>	Personal watercraft (jet ski). <i>e.g. Wave runner six</i>
<b>Lifesaver #</b>	Rescue helicopter. <i>e.g. Lifesaver two-one</i>
<b>UAV #</b>	Remotely piloted aircraft (unmanned aerial vehicle/drone). <i>e.g. UAV one</i>

Other call signs may be used in your local area, e.g., DO #, Surf Rescue #, Westpac #, PC. Check your local SOPs for more information on call signs used in your area.

You should start your initial transmission by using the call sign of the station you want to contact, twice, followed by your call sign. It is imperative to wait for a reply to confirm that communication is established before continuing with any message. You may not need to use your call sign for each transmission after you have established communication with the desired party.

### Example radio calls at Alexandra Headland Surf Life Saving Club:



## Radio protocols

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- [Signing on](#)
- [Radio checks](#)



- [During patrol](#)
- [Signing off](#)

## Signing on

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Your SLS state centre may require you to sign on with SurfCom at the start of patrol over the radio network, *SLSA Operations App* ([Apple Store](#) or [Google Play](#)) or Lifesaving Incident Management System and Operations Control (LIMSOC). Check your SLS state centre SOPs regarding the method of sign on.

Possible information required for sign on includes:

- Beach status—open or closed
- IRB status—operational or not
- Patrol status—number of patrolling members.

**Note:** Provide a reason if the beach is closed, e.g., dangerous surf, carnival, marine stingers.

## Radio checks

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Radio checks are the simplest form of radio transmission and are the quickest way of checking that your radio equipment is functioning correctly. Carry out a radio check between your surf lifesaving club and

SurfCom only if you feel your equipment is faulty.

## Example radio check



**Seacliff Patrol. Seacliff Patrol.  
This is Seacliff tower. Over.**

**Seacliff tower. This is Seacliff  
Patrol. Go ahead.**



**Requesting radio check. Over.**

**Your message is loud and clear\*.  
How do you read me? Over.**



**Your message is also loud and  
clear\*. Out.**

*\* Your message can be loud and clear, unreadable or nothing heard.*

### Radio check readability scale

<b>Loud and clear</b>	Can receive and understand transmissions.
<b>Unreadable</b>	Can receive but cannot understand transmissions.
<b>Nothing heard</b>	No transmission received.

## During patrol

You should be aware that many people monitor radio channels so you should be careful when communicating details about incidents, victims and their injuries.

## ✘ DO NOT

- declare a victim as deceased over the radio
- provide personal information such as phone numbers.
- use bad language/profanity
- use personal names unless absolutely necessary
- use radios for social conversation.

## Signing off

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Your SLS state centre may require you to sign off with SurfCom at the end of patrol over the radio network, *SLS Patrol Operations App* or *LIMSOC*. Check your SLS state centre SOPs regarding the method of sign off.

## Incidents and emergencies

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- [Emergency call](#)
- [Incident procedures](#)

## Emergency call

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Where a patrol requires urgent assistance for a life-threatening incident or any incident outside of the patrol capabilities (e.g., mass rescue), the correct radio procedure to clear a channel is to call 'Rescue, Rescue, Rescue'. For example:



**Rescue, Rescue, Rescue' (pause).  
'SurfCom, SurfCom, this is Gove  
Peninsula. Over**

**All stations stand by. Break. Gove  
Peninsula this is SurfCom.  
Go ahead.**



Any rescue or life-threatening incident should be communicated to your SLS state centre communication centre. They can assist you by calling the most appropriate rescue services and recording key information. It is important that you follow any directions they provide.

At the conclusion of the life-threatening incident, your SLS state centre communication centre will advise 'All stations' that the incident has finished, and normal patrol operations may recommence on that radio channel.

## **Incident procedures**

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For any incident, you should use the '4 Ps' to pass on accurate information.

When describing your position, use the correct name of the beach/location and/or cross street. Local 'slang' names should be avoided.



## 4 Ps for incident procedures

### 1 Position

What is the specific position of the person that is as close and accurate as possible?

*e.g.*

- *About 50 m north of the Avalon Beach Surf Life Saving Club on the corner of Barrenjoey Road and Avalon Parade...*
- *At the fixed rip about 5 m south of the flags, and 20 m offshore...*
- *Approximately 10 m east of the Glenelg Jetty...*
- *Northern end of the beach on the rocks...*

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### 2 Problem

What is the victim's problem?

What do you require?

*e.g.*

- *Problem is minor cuts to the victim's arms. We require a first aid kit...*
- *Swimmers are caught in the rip and fatigued. We require the IRB to assist...*
- *Problem is a dislocated shoulder. We require a triangle bandage and an ambulance...*
- *Problem is a major fin chop to the left leg. We require an ambulance and a first aid kit...*

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### 3 People

How many people?

How to identify them–age, gender, clothing?

*e.g.*

- *Victims include a teenage female and a teenage male both wearing gym clothes...*
- *Victims are two female children wearing pink rash shirts...*
- *Victim is a female in her late 70s wearing a red hat...*
- *Victim is a male surfer in his late 20s with a beard and many tattoos....*

---

### 4 Progress

What is happening now to progress the scene?

*e.g.*

- *The female is now unconscious and not breathing. We are commencing CPR and require a defibrillator...*
- *The IRB is on the way to rescue the children and we will assess their condition once they have been returned to shore...*
- *The ambulance has arrived on the scene...*
- *The bandages are not controlling the severe bleeding and they are losing consciousness. We require a trauma kit and a defibrillator...*

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## Radio Maintenance

To maintain maximum operating efficiency of radio equipment, and to prolong service life, all equipment should be regularly maintained and serviced annually, as well as checked prior to, and after, its use.

Maintenance of radios used at your surf lifesaving club should follow your SLS state centre SOPs. After use, radio bags, cases and harnesses should be rinsed lightly with fresh water to remove salt water and sand, then air-dried.



Immediately follow the manufacturer's recommendations if your radio shows physical signs of damage after it has been dropped or immersed in water. Then advise your patrol captain of your actions. Damaged radio equipment should be tagged as faulty and taken to an approved radio repairer or service agent as soon as possible.

## Battery Charging

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Most surf lifesaving clubs and services have portable radio chargers set up so that radio battery charging is easy and convenient.

Radio batteries should always be fully charged for the next patrol duty or lifesaving operation. A radio with a low or a flat battery may emit a warning beep or turn off when trying to transmit. Turn this radio off and put it on to charge immediately, ensuring that the charge light is on.

The charging of radios used at your surf lifesaving club should follow the manufacturer's recommendations and your local SOPs.



## General Information

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- Many radio networks are automatically voice-recorded. Always follow radio procedures and use the correct call signs.
- Most radios are fitted with an identification number ('IN') to uniquely identify a transmitting radio.
- Radios should not be used in thunderstorms except when there is an emergency.
- There are many SLS clubs and support operations that have VHF marine radios. Strict laws apply to the operation of VHF marine radios and only those holding the appropriate qualifications should operate them to avoid penalties outlined in The Radiocommunications Act 1992.
- Where possible, use simplex channels for SLS club-specific transmissions such as water safety, training or carnivals. Refer to your local SOPs.

## Module 3 – Reflection questions

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You are now ready to attempt the eLearning component of your course for this module. You can access the eLearning through the [SLS Members Area](#).

You should also test your knowledge by reading through the following reflection questions. If you find yourself answering 'no' or 'not sure' to any of them, you may wish to speak with your trainer for clarification.

1. Do you understand [how radios work](#), including the purpose of channels, repeaters and networks?
2. Are you confident in your knowledge of Surf Life Saving's [prowords](#)?
3. Are you confident in your ability to use call [prowords](#), [call signs](#) and the [4 Ps](#) to communicate over the radio?
4. Would you know what to do if your radio is [dropped into water](#), or shows signs of physical damage?



# Module 4 – Surf Awareness

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- [The coastal environment](#)
- [Wave Formation](#)
- [Surf Zone Currents](#)
- [Tides](#)
- [Beach types and hazard ratings](#)
- [Beachsafe App](#)
- [Surf skills](#)
- [Paddling technique](#)
- [Module 4 – Reflection questions](#)

## The coastal environment

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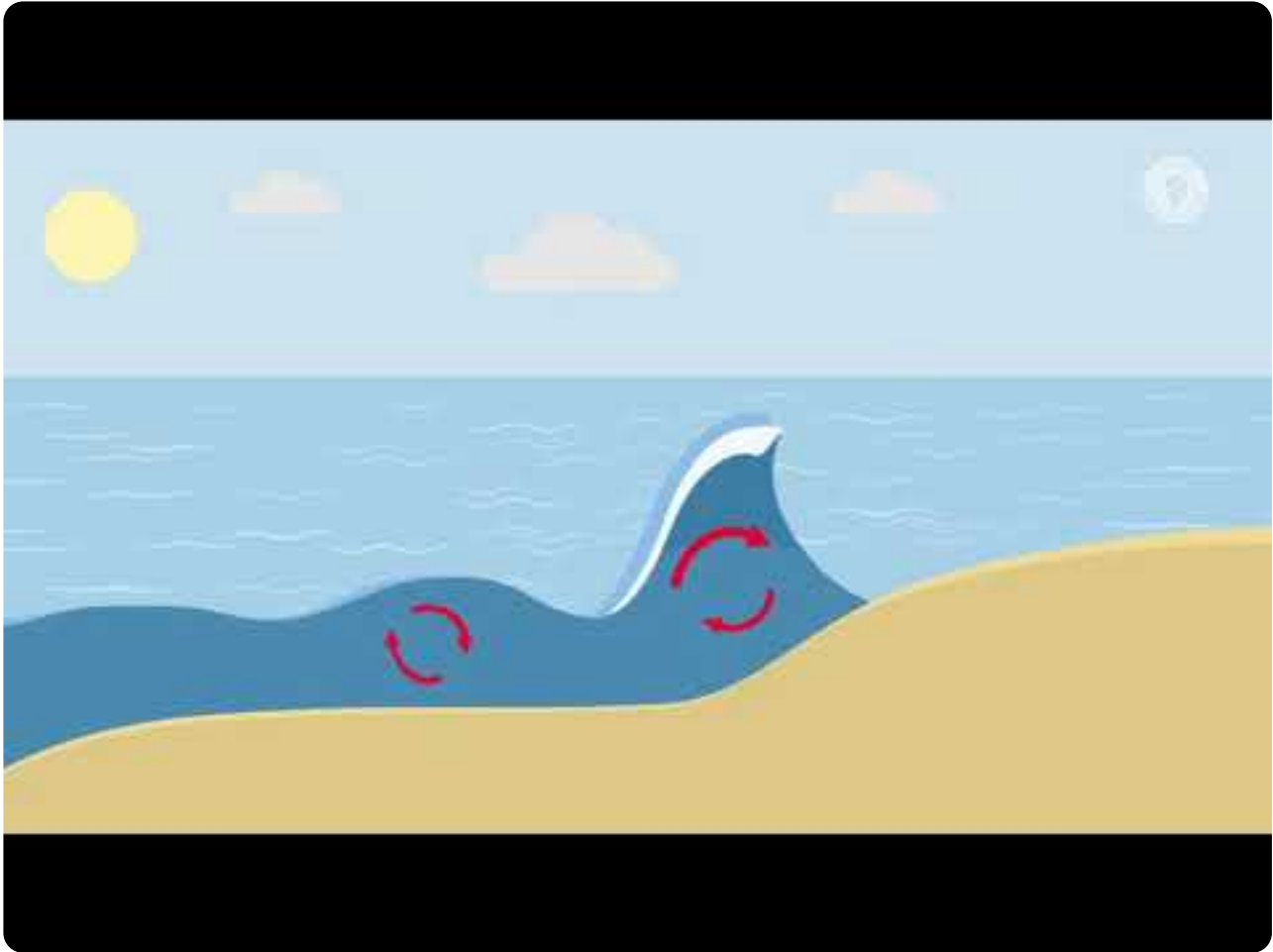
The coastal environment is highly dynamic, with constant changes to beaches, sandbanks, waves, winds and currents. While on patrol, you should regularly monitor hazardous surf conditions that increase the risk to the public. For example, falling tides may increase the speed of rip currents, a wind change may see more stingers washing ashore, or a long swell period may signal danger for unwary rock fishermen. The ability to forecast, translate and prepare for changing environmental conditions is a valuable skill.

Rip currents are a particularly significant hazard since they are the cause of the majority of rescues and coastal drownings each year in Australia<sup>[10]</sup>. Learning how to identify rip currents, ascertain their flow behaviour, manage public interaction with them and use them to assist you are vital lifesaving skills.

As a lifesaver, you will need to develop the key skill of reading the surf conditions, which change in a very short period of time due to changing tides and weather conditions. For your safety and that of your team, you should always spend time looking and reviewing the conditions before entering the water.

## Wave Formation

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[https://www.youtube.com/embed/r\\_LfcaKhASA?rel=0](https://www.youtube.com/embed/r_LfcaKhASA?rel=0)

## Wind energy to wave generation

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The atmosphere is constantly rearranging itself into areas of high and low pressure due to a range of factors. Air is accelerated in the form of wind from areas of high pressure to areas of low pressure. The greater the pressure difference (or gradient) between the two areas, the stronger the wind will be. In the Southern Hemisphere, winds circulate clockwise around low pressure, and anticlockwise around high pressure. These winds are the driving force in wave generation.

The **charts below** show the relationship between pressure systems and wind. The **synoptic chart** shows high- and low-pressure areas, with lines connecting areas of equal pressure (isobars). You can see how these pressure systems are reflected in the wind patterns shown in the **chart underneath**. The closer the lines on the synoptic chart, the greater the wind speed and therefore wave strength and height.

**MSLP / Precip (06 hourly)**  
**Valid 18UTC Tue 19 Nov 2013**

**ACCESS-Global**  
**t+150**

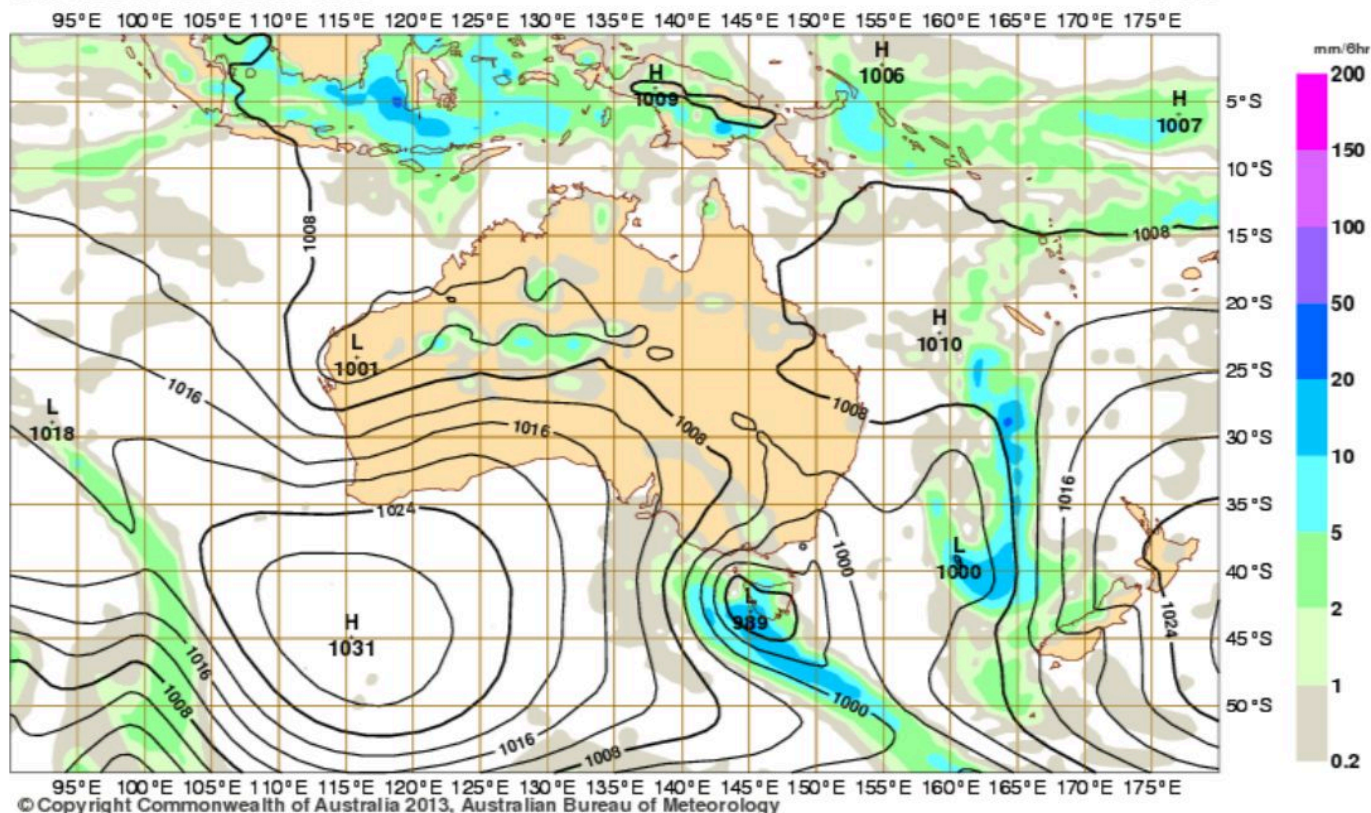


Chart 1 – Interactive weather and wave forecast<sup>[11]</sup>

**Total Wave Height & Direction**  
**Valid 18UTC Sun 28 Jul 2019**

**AUSWAVE Regional**  
**t+000**

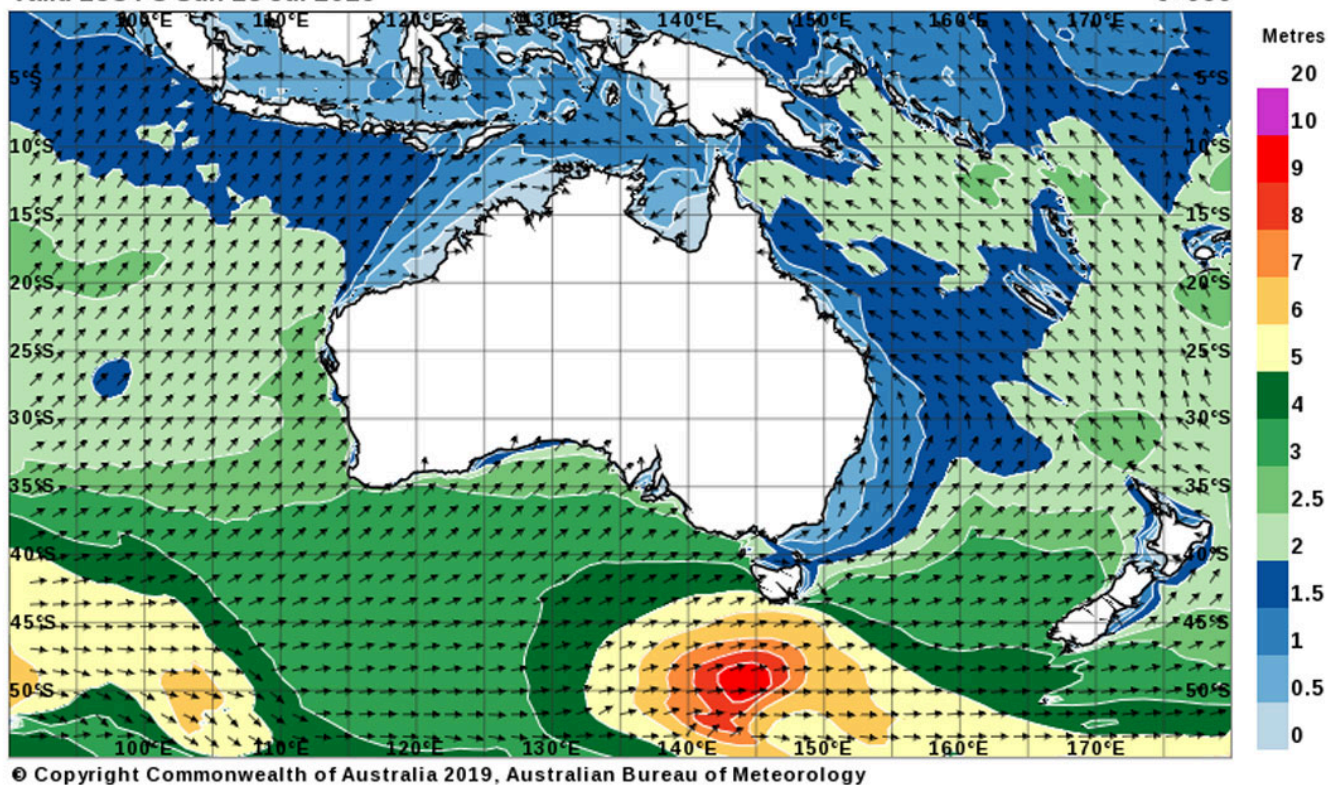


Chart 2 – Total wave height and direction forecast<sup>[12]</sup>

# Swell propagation and characteristics

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Swells are formed by the wind blowing across the surface of the ocean.

The size of the swell is determined by three factors.

1. **Strength**—the intensity of the wind.
2. **Duration**—the length of time the wind blows.
3. **Fetch**—the distance over which the wind blows.

The longer and stronger the wind blows, and the greater the distance over which it blows, the larger the swell pattern will be as it travels across the ocean. This process is called swell propagation. At this stage, swells take on a distinct set of characteristics.

The following swell characteristics can give useful information to the lifesaver when assessing surf conditions.

- **Swell period**—the time (measured in seconds) between swell crests. Swells with a high period (longer time) indicate increased strength of the waves when breaking and increased time between sets.
- **Significant wave height**—the vertical distance (measured in metres) between the crest and the preceding trough of a wave that is about to break. It is indicative of the size of the wave face.
- **Swell direction**—the compass direction from which the swell is coming. Coastline that is more exposed to the incoming swell direction will experience larger surf conditions than more protected areas.

Swells can retain their energy over long distances. They reach saturation when a balance is reached between the generating force (wind) and the limiting force (gravity). They are also limited by loss of energy through white-capping (aka 'white horses').

## Surf forecast

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Surf forecasts for offshore swell conditions are quite reliable, but they require significant translation with an understanding of local environments to accurately predict conditions on any beach.

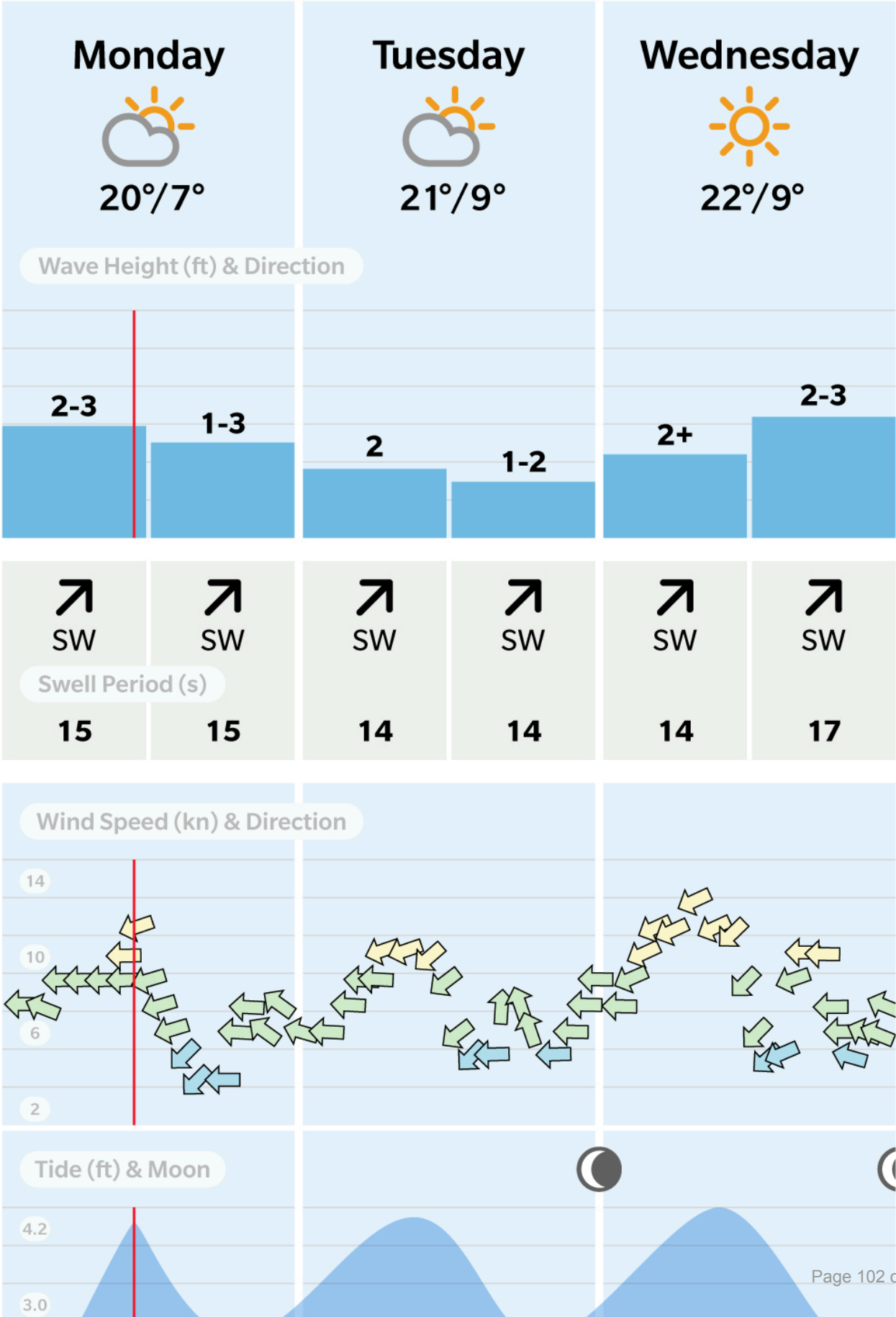
A variety of organisations provide marine forecasting services, including Surf Life Saving, Coastalwatch and the Australian Bureau of Meteorology. The key information provided includes significant wave height, swell period, swell direction, wind speed and wind direction.

Routinely accessing this information before commencing your lifesaving duties allows for additional preparation for hazardous conditions if necessary. The SLS [Beachsafe App](#) allows you to look up the specific surf forecast at the beach you are heading to.





# SURF FORECAST



Wednesday

22°/9°

Wave Height (ft) &amp; Direction

2+

2-3

SW

SW

Swell Period (s)

14

17

Wind Speed (kn) &amp; Direction

14

10

6

2

Tide (ft) &amp; Moon

4.2

3.0

# Wave grouping

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Swells form into a regular pattern of larger and smaller groups of waves. The largest waves in this pattern are called sets, and the smaller waves are referred to as lulls. The number of waves in a set and the duration of the lull between sets is generally consistent within a given swell but varies between swells.

From one set to the next, waves in the set are generally consistent in their size relationship. In a three-wave set, for example, the size relationship may be as follows:

- smallest
- medium
- largest



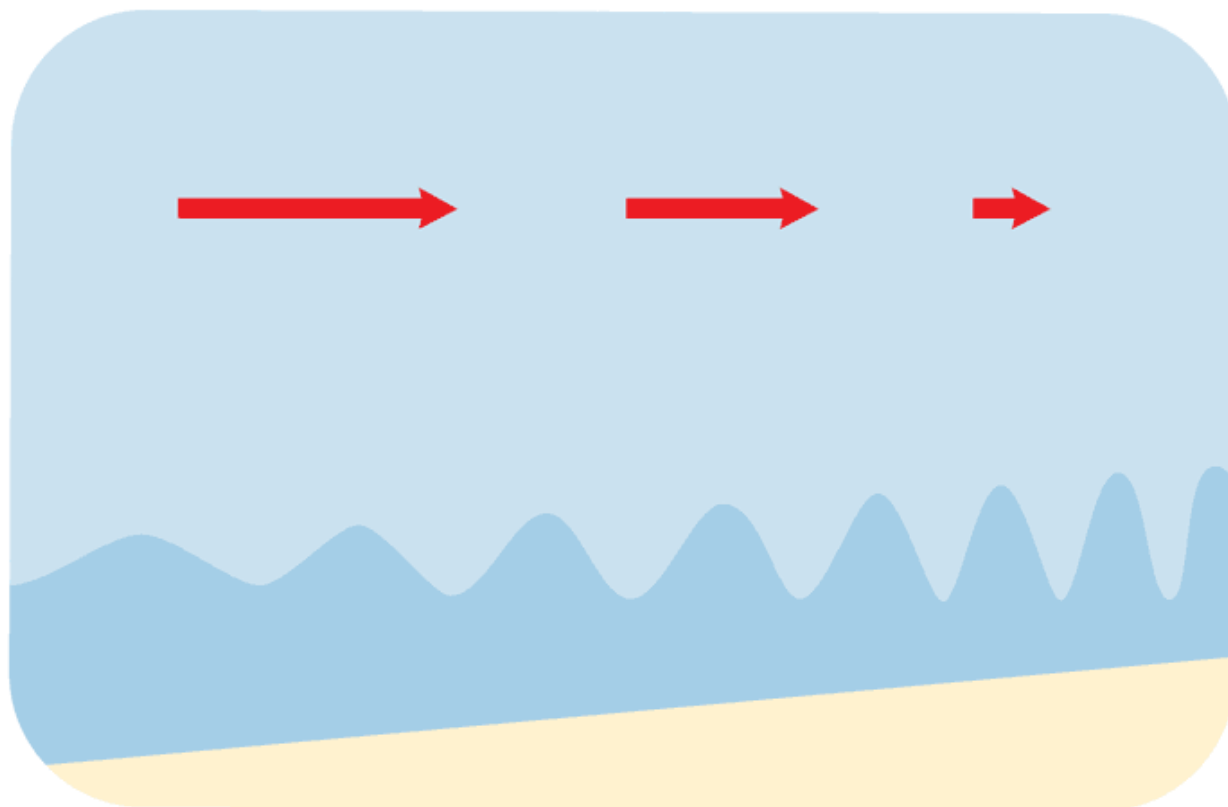
A lifesaver can avoid negotiating larger set waves and get out to sea more easily (and faster) by timing the lull and using the rip current, which can flow faster, or 'pulse', following a set.

## Swells interacting with the coastline

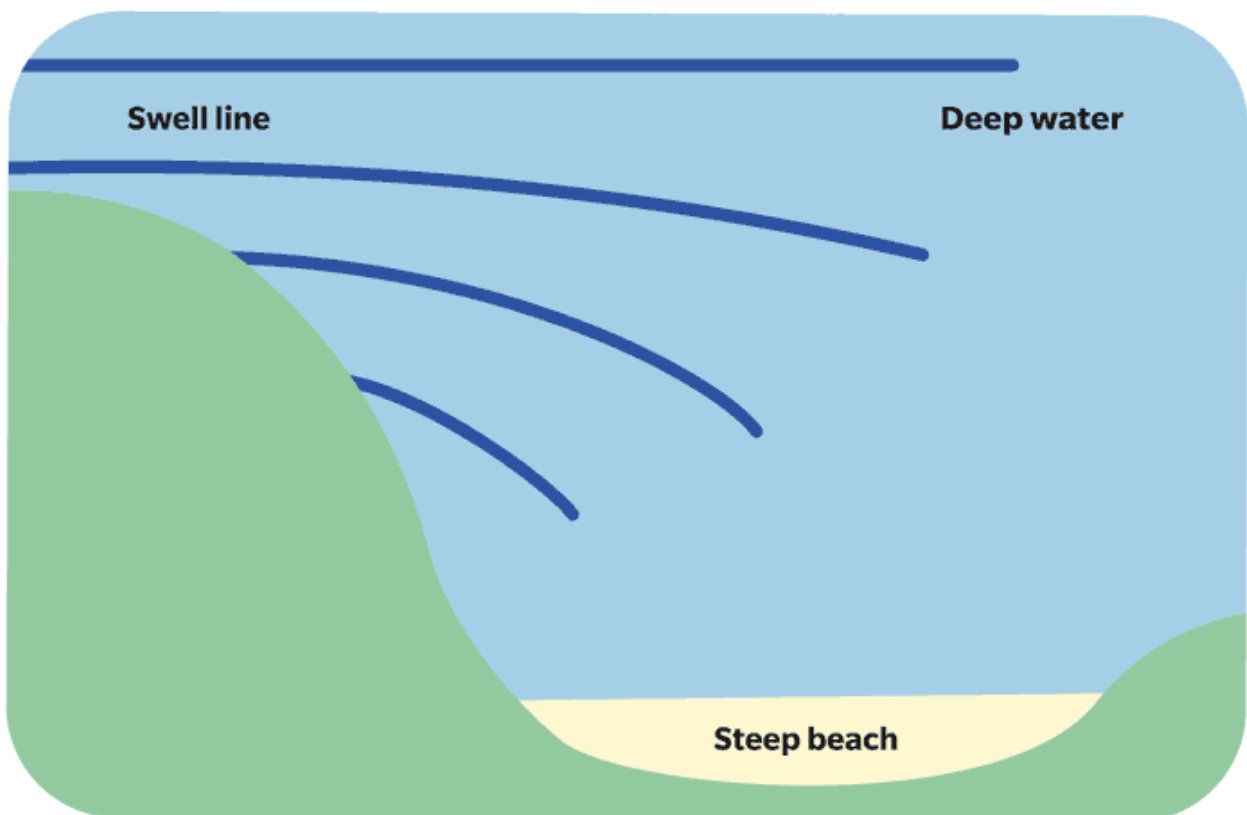
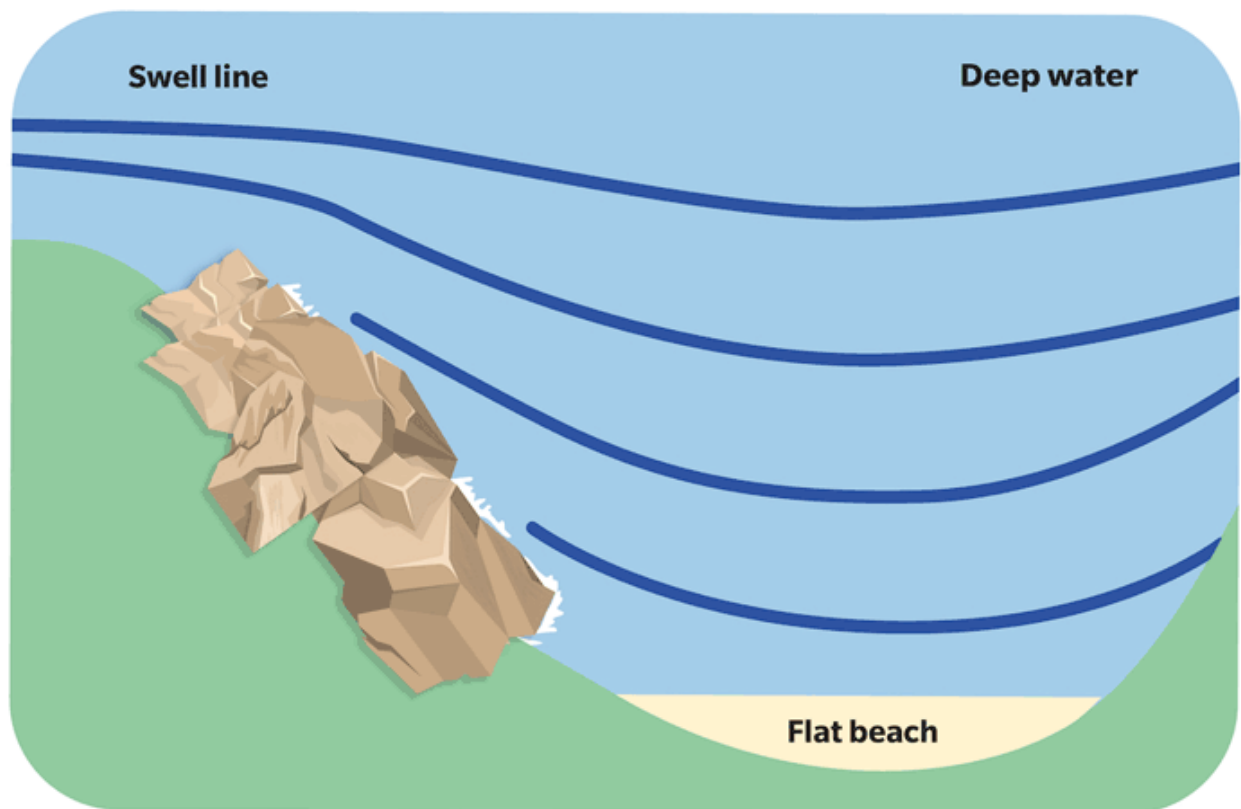
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As a swell approaches land, it interacts with the shape of the coastline and the underwater geography (bathymetry). This process is highly variable, depending on the coastline. As the swell approaches

shallow water, it becomes larger and slows down, shortening the swell period. This is called shoaling.



Swell energy can become focused on one shallow area and break with immense power, such as on a reef ('focusing') or spread out over a wider area such as a bay ('defocusing'). Tidal movements can exaggerate the effect of swell focusing over sandbanks, reefs and rock platforms. When the water depth becomes shallow enough, the crest of the swell starts moving faster than the base of the trough, resulting in breaking waves.





# Wave profiles

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## Plunging waves



Plunging waves break with tremendous force and can easily throw a swimmer to the bottom. They usually break in shallow water. Low tides can increase the frequency of plunging waves. This wave type can be dangerous and is a common cause of spinal injuries.

Plunging waves may develop into 'back-blasting waves', which forcefully blast water and sand out the back of the wave when the sandbank is very shallow. They are the most hazardous type of wave.



A plunging wave that breaks directly on, or very close to, the shore is often called a 'shore break'. This happens when the beach is very steep at the shoreline.



## Spilling waves



Spilling waves occur when the crest (or top) of the wave tumbles down the face (or front) of the wave. Generally, spilling waves are the safest wave type for swimmers.

## Surging waves



Surging waves may never actually break as they approach the shore. These waves are commonly associated with rock ledges that face into deep water. Surging waves do not lose speed or gain height and can knock people off their feet and carry them back into deep water. For this reason, they can be very dangerous, especially around cliffs, rock ledges and breakwaters.



# Tsunamis



A tsunami is a series of ocean waves with very long wavelengths (typically hundreds of kilometres long), caused by large disturbances of the ocean floor. These disturbances are most commonly undersea earthquakes, but could also be landslides, volcanic eruptions, explosions or meteorite impacts. They have the potential to cause disastrous inundating waves, however Australia usually experiences their effects only as dangerous rip currents and unusual tidal variations. These variables are reflected in the tsunami warning levels issued by the Joint Australian Tsunami Warning Centre. [\[13\]](#)

- **No threat**—an undersea earthquake has been detected; however, it has not generated a tsunami, or the tsunami poses no threat to Australia and its offshore territories.
- **Marine and immediate foreshore threat**—warning of potentially dangerous rip currents, waves and strong ocean currents in the marine environment and the possibility of only some localised overflow onto the immediate foreshore.
- **Land inundation threat**—warning for low-lying coastal areas of major land inundation, flooding, dangerous rip currents, waves and strong ocean currents.

## Joint Australian Tsunami Warning Centre

**Need Emergency Advice?** Please listen to your local radio and TV announcements or call **1300 TSUNAMI (1300 878 6264)** for latest warning information. For emergency assistance, call your local emergency authority on **132 500**

**\*\*\*No Tsunami Currently Affecting Australia\*\*\***

### National Tsunami Bulletins

No tsunami bulletins current

### State/Territory Warnings

No tsunami warnings current



The [Joint Australian Tsunami Warning Centre](#) is operated by the Australian Bureau of Meteorology and [Geoscience Australia](#)

Refer to the [Australian Institute for Disaster Resilience](#) for more information about planning for tsunamis.

## Local winds

Although large wind patterns out to sea contribute to the generation of swell, local winds affect the ocean surface conditions in the surf zone and how the waves break. Local winds (measured in km/h or knots) are generally described in two ways:

- **Offshore winds** — blow from the land towards the ocean. They generally result in a smoother ocean surface.



- **Onshore winds** — blow towards the land from the ocean. They generally result in turbulent ('choppy') conditions and spilling waves. These are commonly called 'sea breezes'.



## Surf Zone Currents

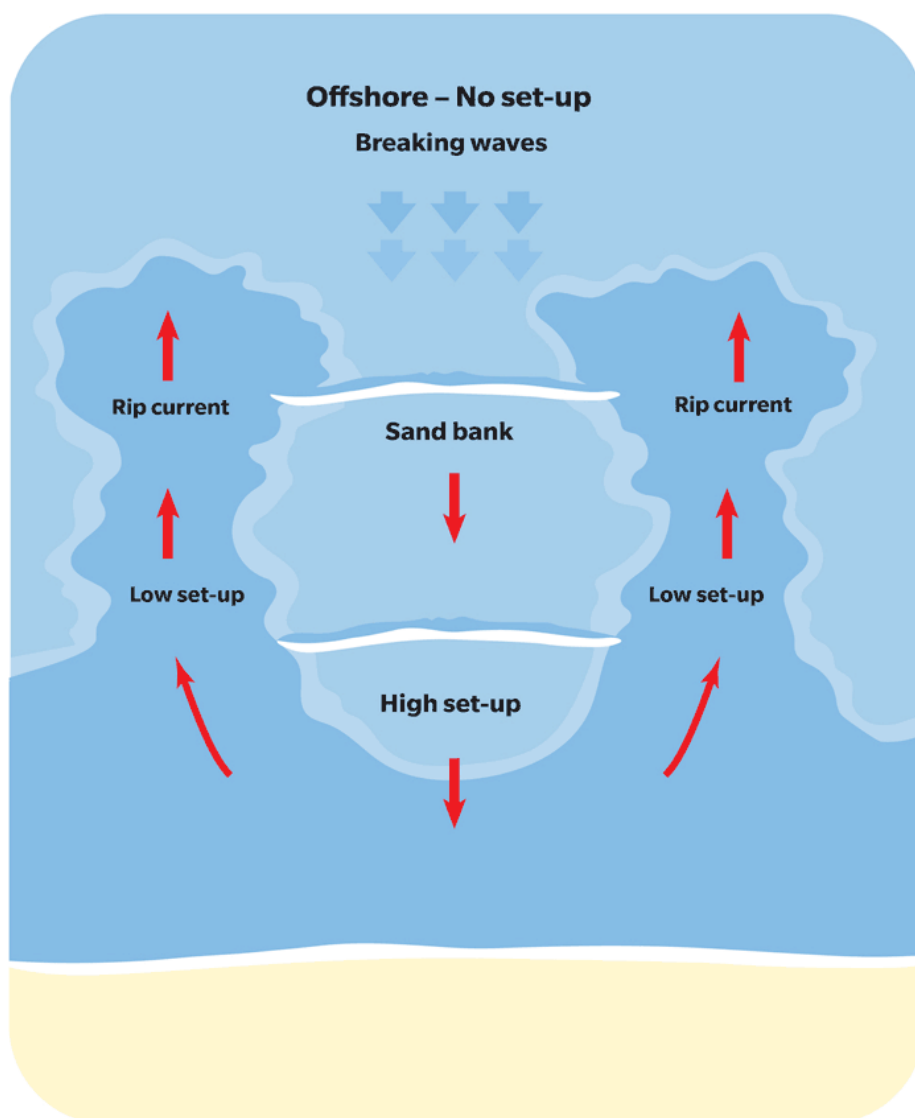
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The area between the breaking wave furthest out to sea and the shoreline (or, in the case of an offshore reef, where waves dissipate) is called the surf zone.

As waves break over a sandbank, the water surges upwards, creating a region of water that is higher than mean sea level (MSL). This water needs to return back to MSL due to the effect of gravity. It does this by flowing into deeper channels in the surf zone that can run along a beach and offshore. The depth of water above MSL is called the 'set-up'. As the set-up increases, the pressure on that water to return to

MSL increases, and this can result in faster flow rates in longshore and rip currents.

Offshore, there is no set-up; sea level is at MSL. On a sandbank, set-up is high and gravity has a strong effect on the water that is above MSL. The effect will be to push water through rip currents and other channels that have a lower set-up.





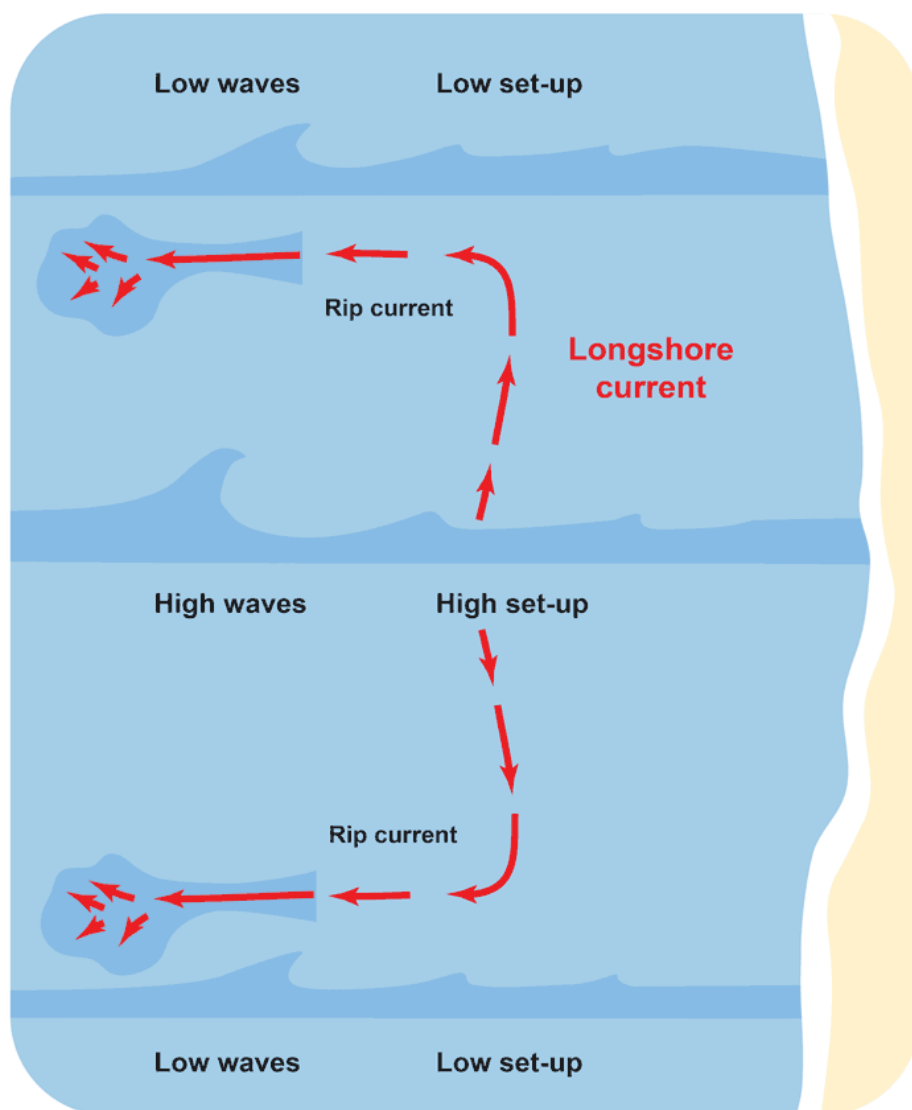
# Longshore currents

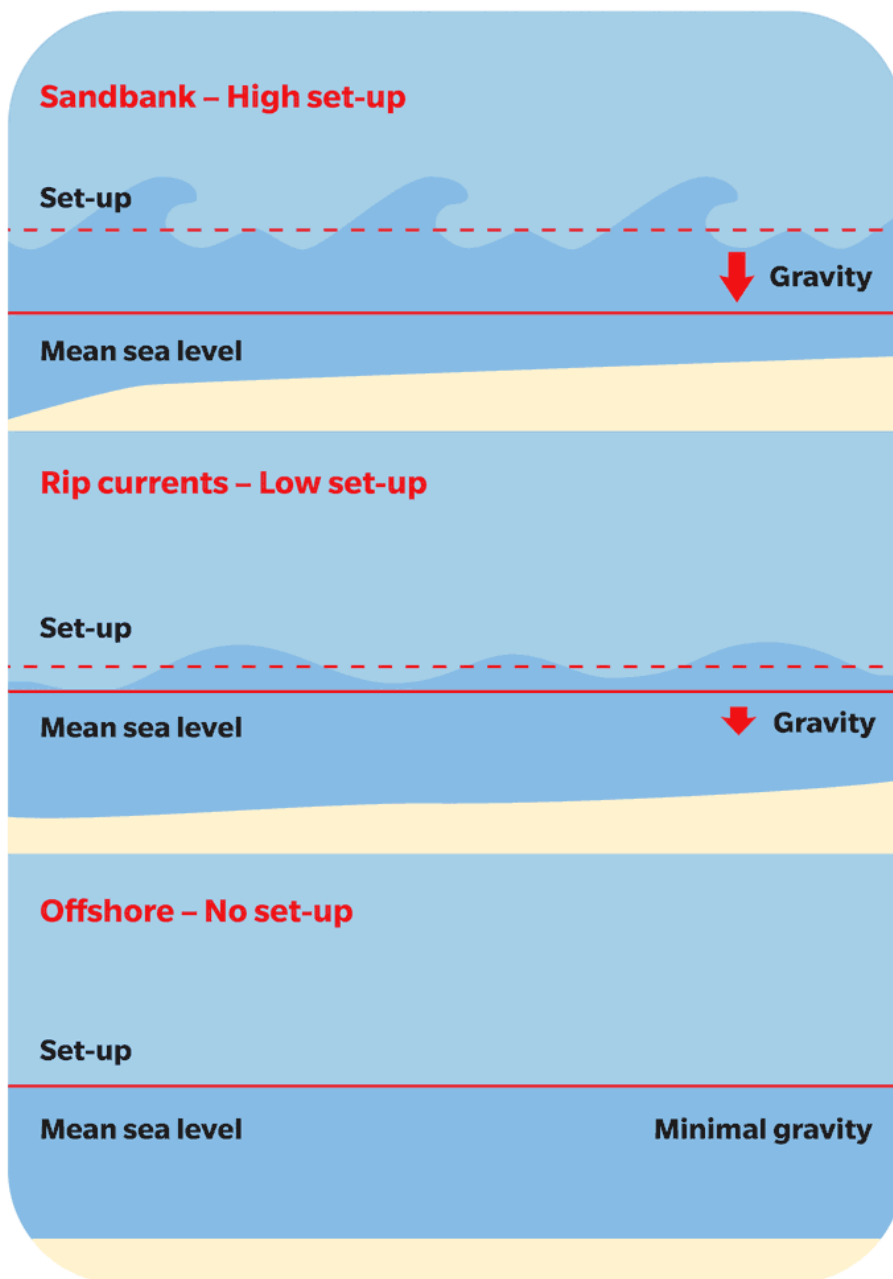
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A longshore current (aka 'littoral current') flows approximately parallel to the shore. Their direction is determined by both the prevailing wave direction and the shape of the sand below the water. The current ranges from fast flowing to barely noticeable. The intensity of the current is usually greater inside the surf zone.

The longshore current may produce a series of holes or gutters behind the waves breaking on the shore. They can pose a major hazard for unsuspecting swimmers, particularly small children. These currents generally feed into a rip current, which can then drag weaker swimmers out to sea. In these cases, they are commonly called 'feeder' currents.





## Rip currents

Water built up at the shoreline needs to flow back out to sea. This can occur by the water flowing directly out to sea or along longshore channels into deeper channels that take water out to sea beyond the surf zone. These outward currents are called rip currents.

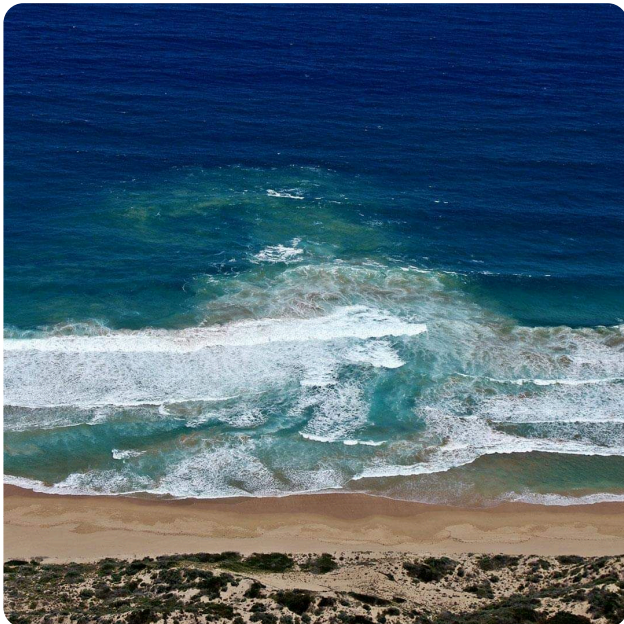
Rip currents are highly complex and dynamic systems. Rip currents are extremely variable and change in character as a result of the underwater topography, the size and intensity of waves, the direction of waves and depth of water. Rip currents will change quickly depending on tide and changing wave conditions. Different types of rip currents can exist on the same beach and often in close proximity.

Rip currents contribute to the majority of surf zone drowning deaths each year. Once caught in a rip

current, survival requires a range of aquatic and decision-making skills, so avoiding them should be encouraged and promoted.

## Identifying rip currents

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How to identify a rip current is an important skill that surf lifesavers need to develop – and it is not an easy skill to master. In 2018, research revealed that most beachgoers are not confident in identifying rips and that the majority of confident people are not able to identify rips correctly<sup>[14]</sup>.

Wind and water movement can make it extremely difficult to know exactly the characteristics of each particular rip current's speed, strength and direction. From the shoreline, you may not be able to determine if the current is circulating in the surf zone or extending out to sea. You may need to view the rip current from an elevated location to have a better understanding of its characteristics.

Five common signs of a rip current are<sup>[15]</sup>:

- deeper, darker-coloured water
- fewer breaking waves



- a rippled appearance, surrounded by smoother water
- debris floating seaward
- foamy or discoloured sandy water extending beyond the surf zone.

Rip currents may not necessarily show all five signs at once and may have only one or two of these signs.

Public education about rip currents is an essential element in reducing the rate of drowning. At every opportunity, lifesavers should educate the public to pause and review the surf conditions before entering the water, taking time to identify and avoid rip currents.

## Types of rip currents

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There are three common types of rip current [\[16\]](#).

### Topographic rip



A topographic rip current will remain in the same area for months or even years. This is due to permanent features such as rock groynes, reefs, headlands, drainage pipes or permanent structures, such as a pier or jetty.

### Fixed rip



Fixed rip currents are generated by a semi-permanent hole or gully on the sandy ocean floor. Once established, a fixed rip may last from several hours to many months. The length of time depends on the ocean conditions and the resulting movement of the sand.

### Flash rip



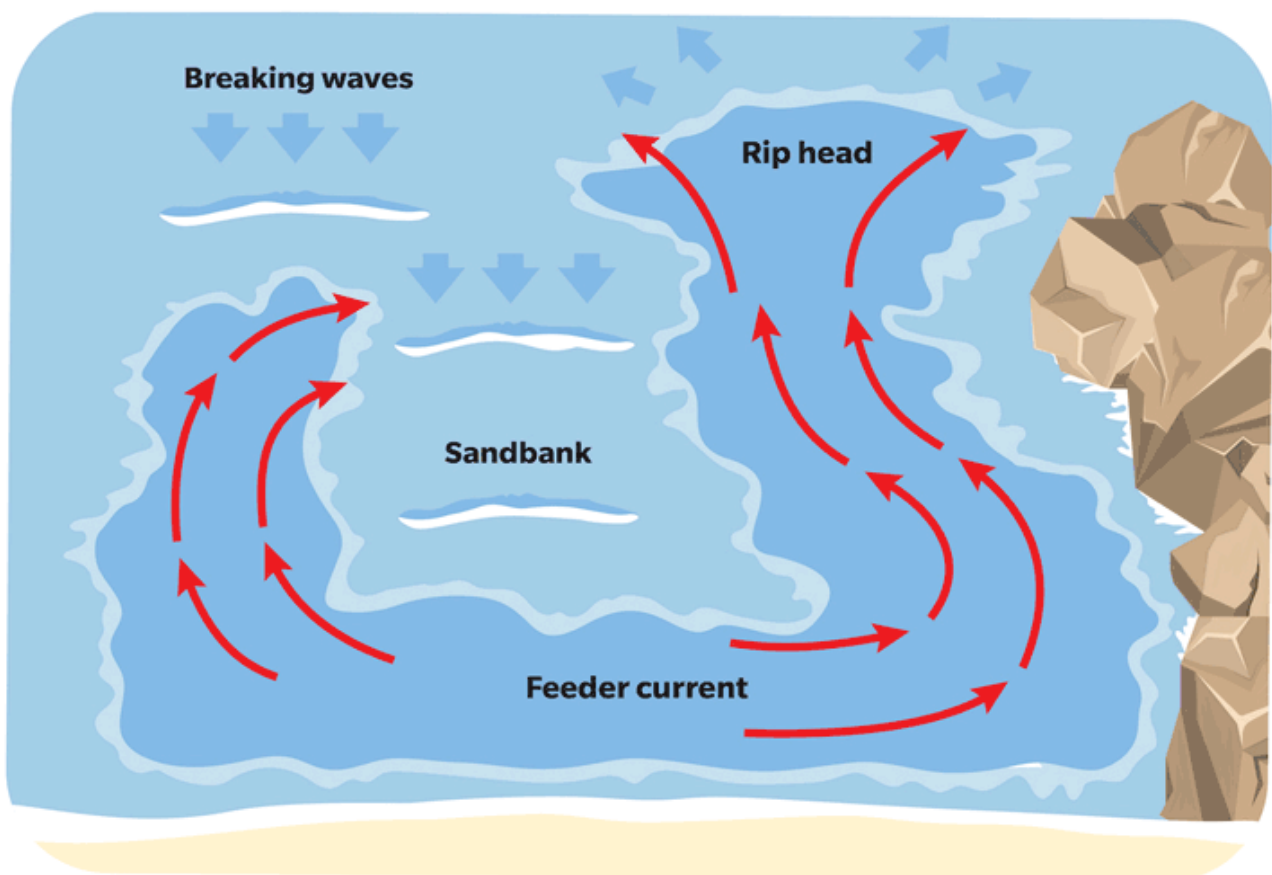
The flash rip current is temporary in nature for any given location. It is caused by a large surf build-up in a short period of time, which increases the volume of water above mean sea level. Flash rip currents appear suddenly, usually without warning. The seaward pull may be intense and is relatively short-lived.

# Flow behaviour of rip currents

Rip current flow behaviour can also be highly variable, again depending on the local geography and the surf conditions. Flow behaviour can include<sup>[17]</sup>:

- a regular flow dispersing in a 'rip head' just beyond the surf zone
- circulating eddies within the surf zone
- short episodic 'pulses' forcing water to exit the surf zone following a set of waves
- water and sediment being carried up to 1-2km out to sea during surf conditions with waves higher than about 3m; these are commonly called 'mega-rip currents'

Multiple types of flow behaviour can occur in any type of rip current. Flow patterns can change rapidly as surf conditions change.



A common feature of many rip currents is that they occur in deeper channels. The deeper water means people can lose their footing and move with the current offshore. Rip currents can flow at up to 3 m per second, which is significantly faster than most people's swimming ability. This is why trying to swim against a rip current can be potentially very hazardous.

Both circulating and non-circulating rip current systems can be operating on the same beach at any given time, based on a number of factors such as topography, bathymetry and swell conditions.



# Circulating rip currents

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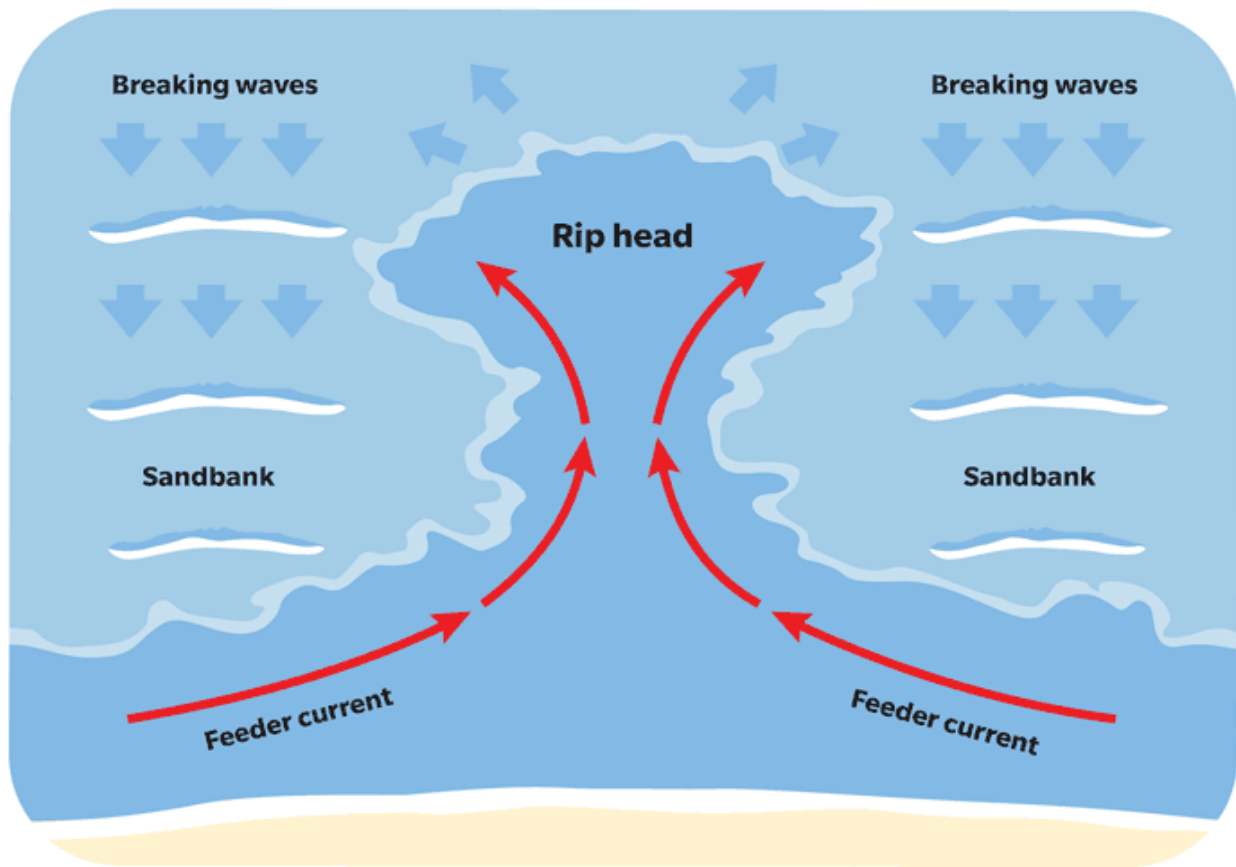
Rip currents can form circulating eddies within the surf zone, where water flows offshore and is then deposited on the adjacent sandbank before returning towards the shoreline where the cycle is repeated. Occasionally, circulating systems 'pulse' and expel water just beyond the surf zone that does not recirculate.

## Non-circulating rip currents

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These commonly occur when the sandbanks and rip current channels are very well defined. The water flows offshore through the rip current before dissipating just beyond the surf zone in a 'rip head'.





## Rip current avoidance principles

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Rip currents are an important consideration when setting up a patrol. Red and yellow flags should also be placed adjacent to a sandbank. Warning signage and rescue equipment such as boards, rescue tubes and fins should be placed adjacent to rip currents, since these are areas where people are highly likely to require assistance.

Reducing the public's exposure to rip currents is the primary intervention to reduce the drowning rate related to rip hazards. This can be achieved by people swimming between the red and yellow flags, following safety signage instructions and learning how to identify rip currents.

# Rip current survival principles

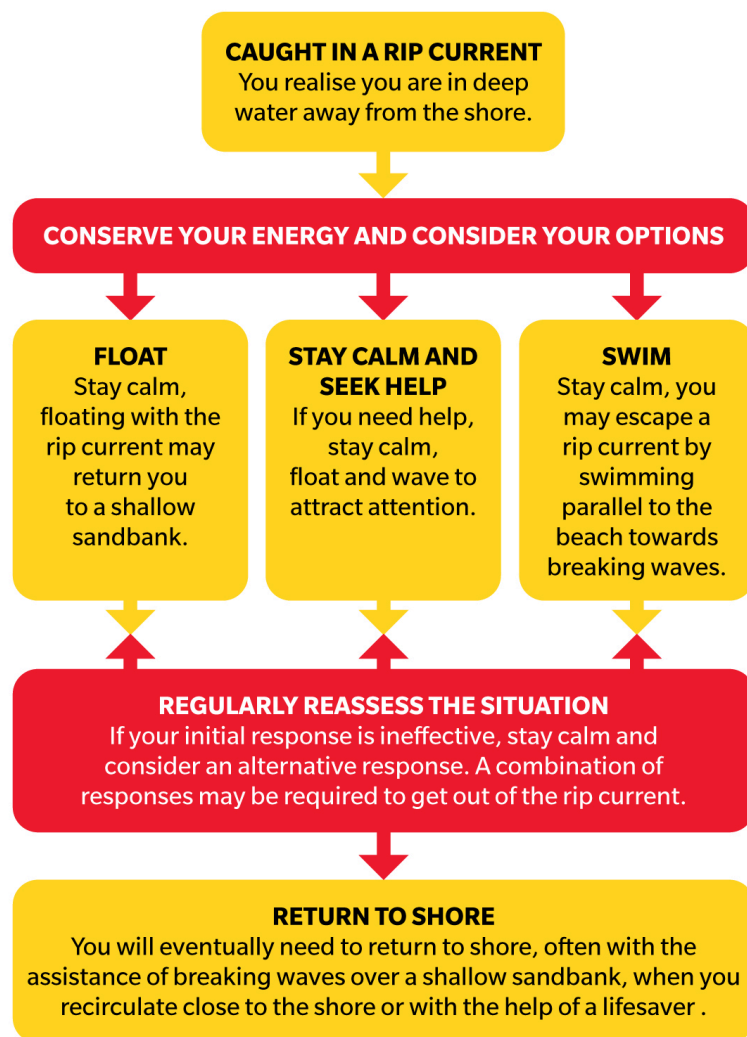
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[https://www.youtube.com/embed/NSP\\_ouWo5BU?rel=0](https://www.youtube.com/embed/NSP_ouWo5BU?rel=0)

Because rip currents are a dynamic and variable hazard, survival once caught in a rip current can require different responses, or sequence of responses, for any particular situation. A common myth is that rip currents will pull you down. This is incorrect. A rip current will only pull you through the water either circulating you back to the surf zone or out to sea. People can drown because they attempt to swim against the rip current for too long, become exhausted and are then unable to stay afloat until they return to shallow water or are rescued. When caught in a rip current it is important to remain calm, do not panic, conserve your energy and consider your options.

The viable options available to a swimmer caught in a rip current are described in the rip current survival principles flow chart.



These survival principles apply to a majority of complex scenarios a person may experience when caught in a rip current. A successful escape from a rip current may require a combination of responses if the initial response is ineffective. Some idealised examples are provided in Table 1.

Swimmer	Initial reaction	Reassessment	Considered action	Reassessment	Reconsidered action	Return to shore
1	Float	Floating further out to sea	Float Signal for assistance	Floating alongshore towards sandbank	Float Signal for assistance	Regain footing, walk back to shore
2	Swim parallel (in one direction, e.g., south)	No progress made; tiring	Swim parallel (in the other direction, e.g., north) Signal for assistance	Significant progress made	Swim parallel (north) Signal for assistance	Regain footing, walk back to shore
3	Swim parallel (in one direction, e.g., east)	No progress made; tiring	Float Signal for assistance	Lifesaver/surfer sighted en route to assist	Float Signal for assistance	Return to shore with assistance of lifesaver/surfer
4	Swim parallel (in one direction, e.g., west)	No progress made ; tiring	Float Signal for assistance	Exited the surf zone	Swim parallel to the beach and towards the breaking waves Signal for assistance	Return to shore with the breaking waves

Table 1—Examples of how to apply the rip current survival principles

## How to apply the rip current survival principles

### Swimmer 1

<b>Initial reaction</b>	Float.
<b>Reassessment</b>	Floating further out to sea.
<b>Considered action</b>	Float. Signal for assistance.
<b>Reassessment</b>	Floating alongshore towards sandbank.
<b>Reconsidered action</b>	Float. Signal for assistance.
<b>Return to shore</b>	Regain footing, walk back to shore.

### Swimmer 2

<b>Initial reaction</b>	Swim parallel (in one direction, e.g. south).
<b>Reassessment</b>	No progress made; tiring.
<b>Considered action</b>	Swim parallel (in the other direction, e.g. north). Signal for assistance.
<b>Reassessment</b>	Significant progress made.
<b>Reconsidered action</b>	Swim parallel (north). Signal for assistance.
<b>Return to shore</b>	Regain footing, walk back to shore.



### Swimmer 3

<b>Initial reaction</b>	Swim parallel (in one direction, e.g. east).
<b>Reassessment</b>	No progress made; tiring.
<b>Considered action</b>	Float. Signal for assistance.
<b>Reassessment</b>	Lifesaver/surfer sighted en route to assist.
<b>Reconsidered action</b>	Float. Signal for assistance.
<b>Return to shore</b>	Return to shore with assistance of lifesaver/surfer.

### Swimmer 4

<b>Initial reaction</b>	Swim parallel (in one direction, e.g. west).
<b>Reassessment</b>	No progress made; tiring.
<b>Considered action</b>	Float. Signal for assistance.
<b>Reassessment</b>	Exited the surf zone.
<b>Reconsidered action</b>	Swim parallel to the beach and towards the breaking waves. Signal for assistance.
<b>Return to shore</b>	Return to shore with the breaking waves.

Despite the inherent complexity of rip current survival for inexperienced surf swimmers, rip currents can be useful tools for lifesavers and surfers who use their offshore flow to quickly and efficiently negotiate the surf zone and access victims.

## Tides

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The gravitational pull of the Moon and the Sun causes tidal movement in the Earth's oceans and seas.

On any specified tidal day, high tide is the highest of the high waters and low tide is the lowest of the low waters. Tides either rise or fall in the period between high and low tide. Mid-tide is the medium between high and low tide.

High tide generally occurs twice in a 24-hour period; however, this may vary for a location during any given week or month.

Tide can affect a variety of conditions and hazards in the surf zone, which the lifesaver should be aware of:

Effects of tide on hazards in the surf zone		
Hazard	Rising to high tide	Falling to low tide
<b>Rip currents</b>	Generally slower flow speeds.	Faster flowing water and greater definition of rip current channels.
<b>Rock platforms</b>	Waves overtopping higher up the platform, more dangerous for rock fishing.	Intertidal zone out of water, greater exposure to slippery moss and algae.
<b>Sandbanks</b>	More water over the sandbank, generally better for swimmers.	Less water over the sandbank, higher danger of spinal injuries.
<b>Waves</b>	Spilling waves, good for learning to surf and bodysurf.	Plunging waves, dangerous for novice surfers and swimmers.

It is recommended that lifesavers are aware of tidal movements specific to their lifesaving service area. The SLS [Beachsafe App](#) allows you to look up the specific tide conditions at the beach you are heading to.



## Beach types and hazard ratings

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Beaches can generally be described as being one of five basic types. This section describes these beach types and the characteristic hazards associated with each.

Beaches can change to a different type as seasons change. A reflective beach in summer could be a bar and rip beach in winter. Changing weather, tides and wave conditions can also mean that a beach changes from one type to another within a few hours. Correctly identifying beach types can help the lifesaver to assess the hazards that may be encountered on a particular beach, the relative safety of the beach and the actions that may be needed to protect beachgoers at any given time.

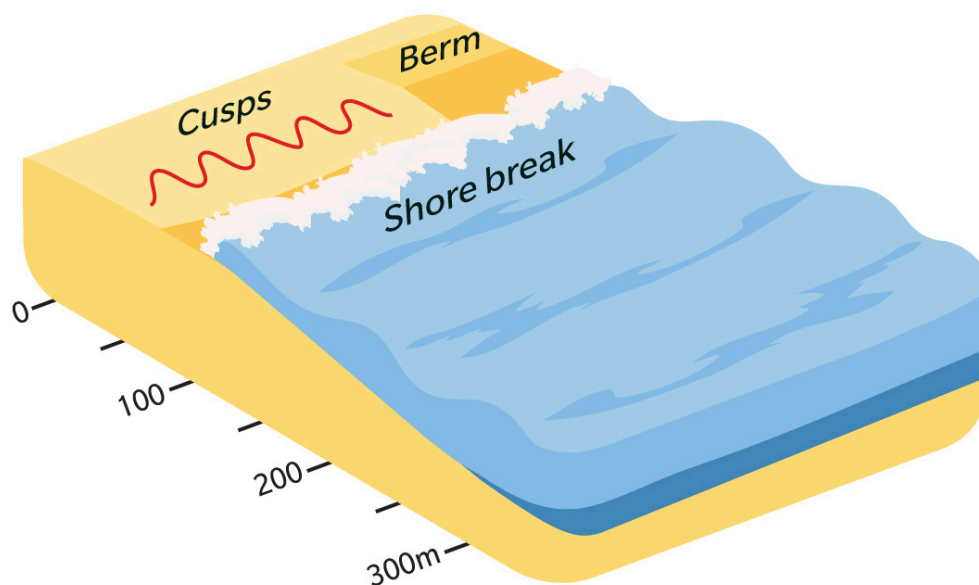
## Types and safety issues

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Beach types are generally determined by their length and topography (both of the beach and underwater). However other factors such as orientation and whether they are sheltered from the prevailing conditions by natural features such as headlands and reefs will have a major impact on the hazard rating and safety issues for a particular beach.



# Reflective



## Wave pattern

- Low wave size – up to 0.5 m
- No surf zone
- Relatively strong and fast surging or plunging waves at the shore break

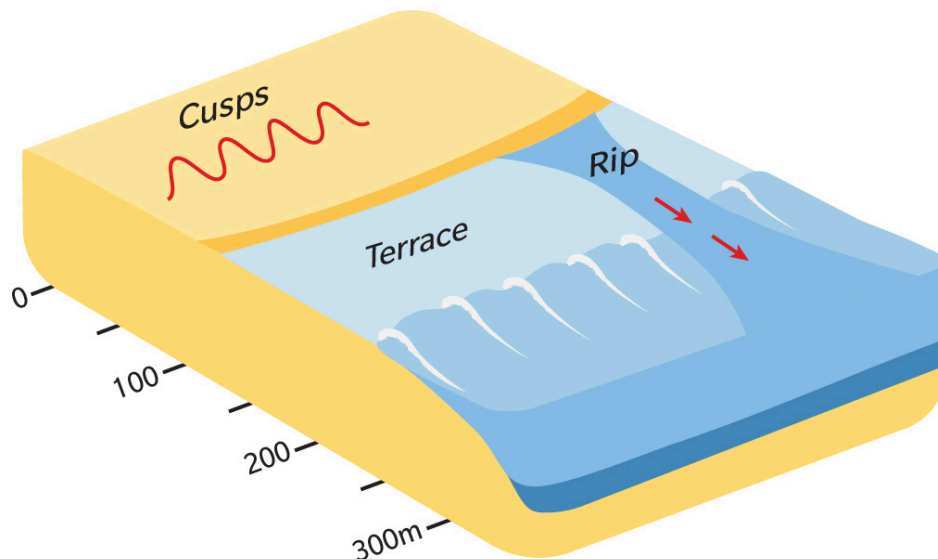
## Hazards

- Rip currents may occur – they tend to be short-lived
- Surging waves and deep water close to shore present hazards for children, the elderly and weak swimmers

## Risk assessment considerations

- Risk of spinal injuries in higher wave conditions
- Supervision is needed for children and weak swimmers
- Swimmers and bodysurfers must watch out for the shore break
- There is a strong pull from the beach into the water
- There is no sandbar and the water is deep close to shore

## Low tide terrace



## Wave pattern

- Relatively low wave size — between 0.5 m and 1 m
- Sometimes breaking on outer edge of sandbar; waves may cross the sandbar unbroken at high tide and break on the beach face

- Plunging waves develop in higher wave conditions

## Hazards

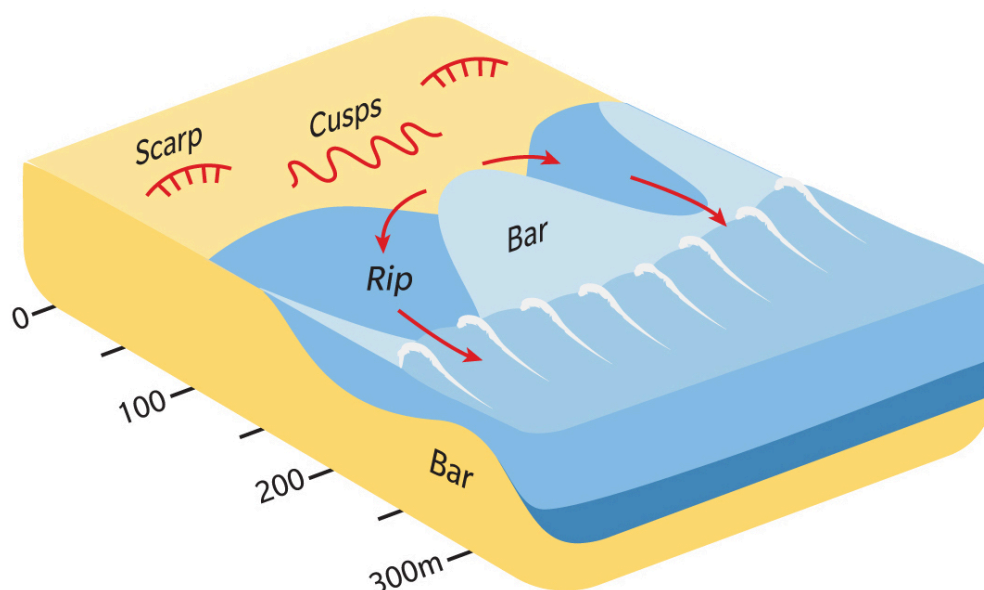
- Higher wave conditions present the risk of spinal injuries
- Shallow and weak rip currents may develop with some wave conditions

## Risk assessment considerations

- At high tide, the sandbar may be covered by deep water, with rip currents and a 'shore break'
- Incoming tides may trap unsuspecting swimmers on sandbars
- This beach often has tidal currents, which increase the level of risk

# Bar and rip

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## Wave pattern

- Wave size between 1 m and 1.5 m
- Waves break on the sandbar, then move shoreward and sideways in the longshore or lateral currents

## Hazards

- Inexperienced and weak swimmers are tempted into the water onto sandbars when they see people standing in shallower water
- Rip currents are stronger at low tide
- Sandbars are in close proximity to deep channels and hazardous rip currents

## Risk assessment considerations

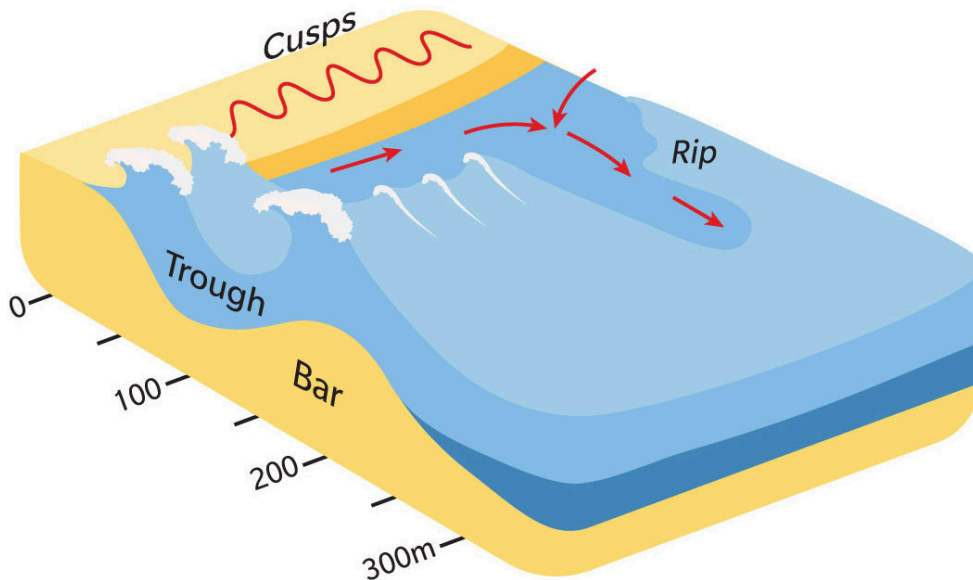
- Multiple flagged areas may be required
- Supervision of children and weak swimmers is needed
- Swimmers may be caught in rip currents
- Waves can wash swimmers off the edge of the sandbar into rip currents

# Longshore trough

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### Wave pattern

- Wave size of 1.5 m or more
- Waves break on the sandbar, reform in the trough and surge up the beach face

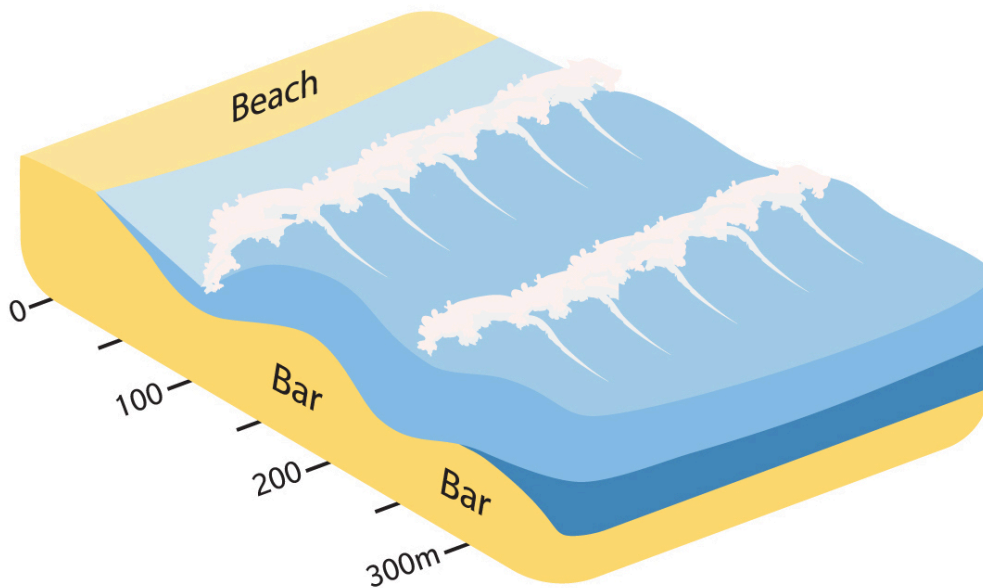
### Hazards

- Deep water in trough close to shore

### Safety points to emphasise

- A strong 'shore break' is common
- Deep water is found in the trough close to shore
- It is difficult for swimmers to return to shore
- Rips and currents occur in the troughs
- Strong surf is found on sandbars
- Waves tend to be stronger and larger

# Dissipative (broad surf zone)



## Wave pattern

- Highest wave energy beaches in Australia
- Waves greater than 2.5 m high
- Very wide surf zone
- Waves begin on an outer sandbar, reform in a trough and break again on an inner sandbar
- Rip currents occur in inner surf zone

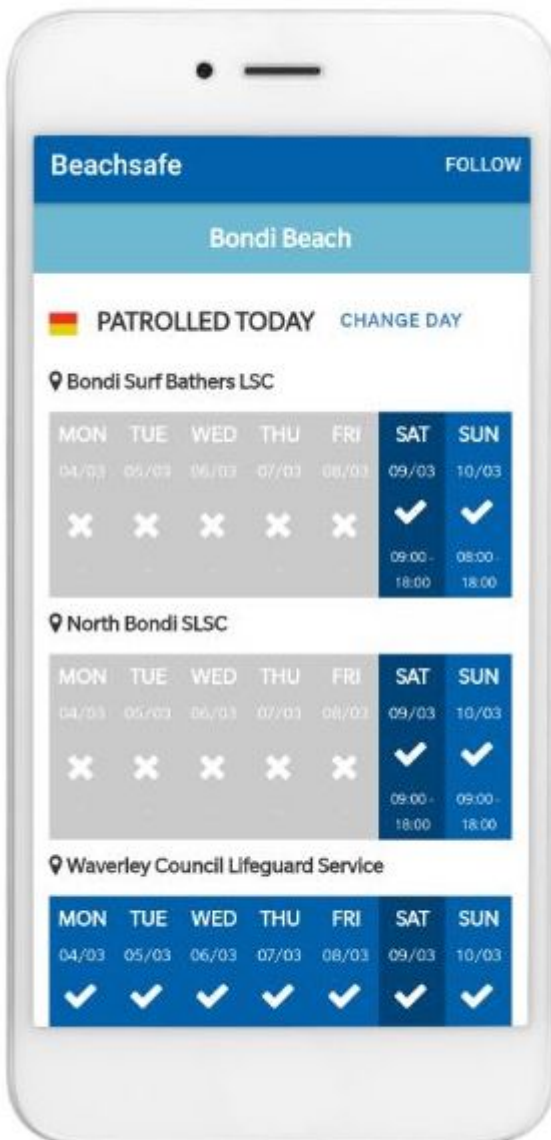
## Hazards

- Very big seas, so most people do not consider swimming in these locations

## Risk assessment considerations

- High waves run across the beach
- Rip currents occur and may take swimmers out to sea
- Strong waves and currents are found in the trough and outer surf zone
- These beaches are often produced by storm conditions
- They are suitable for strong, experienced swimmers only

## Beachsafe App



Beachsafe provides detailed information on more than 11,000 beaches around Australia. It can be accessed in a number of ways.

- An app for your smartphone
- A website <https://beachsafe.org.au/>

Beachsafe allows you to look up the specific local conditions at the beach you are heading to. It provides

details of each beach including:

- beach location and nearby beaches
- known hazards
- patrol status
- swell conditions
- tide conditions
- UV index
- water temperature
- weather forecast
- wind conditions

The app also provides a general beach hazard rating, for each beach as follows:

- least hazardous: 1 – 3
- moderate hazardous: 4 – 6
- highly hazardous: 7 – 8
- extremely hazardous: 9 – 10.

This rating provides an assessment of the likely conditions. However, the prevailing surf, tide and weather conditions may change the hazard ratings. Always check and make your own assessment of hazards prior to entering the water.

## Surf skills

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An important skill for all surf lifesavers to develop is negotiating at least moderate surf conditions, either by swimming or using rescue equipment. Initially, you will need to learn and practise new skills in calm conditions, or in conditions with which you are comfortable. You should attempt more challenging conditions only when you are confident and familiar with rescue equipment.

Always note the prevailing conditions such as wind, rip currents, tides and wave conditions, and use them to your advantage.

## Self-survival skills

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Self-survival skills are an important way of minimising risk to a lifesaver. These skills include your ability to use rescue equipment to provide flotation for yourself and a victim.

### Floating

Learning to float on your back allows you to keep your body buoyant while conserving much-needed energy. Your personal buoyancy will depend largely on your individual body composition. People with large amounts of muscle mass and dense bones are typically less buoyant. Wearing a wetsuit will often



increase your ability to float, while some forms of clothing can have the opposite effect. Flotation aids such as rescue tubes or lifejackets can assist your buoyancy.



You can float by:

- lying on your back with your body fully extended
- keeping your head in line with the rest of your body
- keeping your head, torso, upper legs and feet at the surface
- keeping your legs straight
- keeping your body in this buoyant position by doing a sculling motion with your hands.

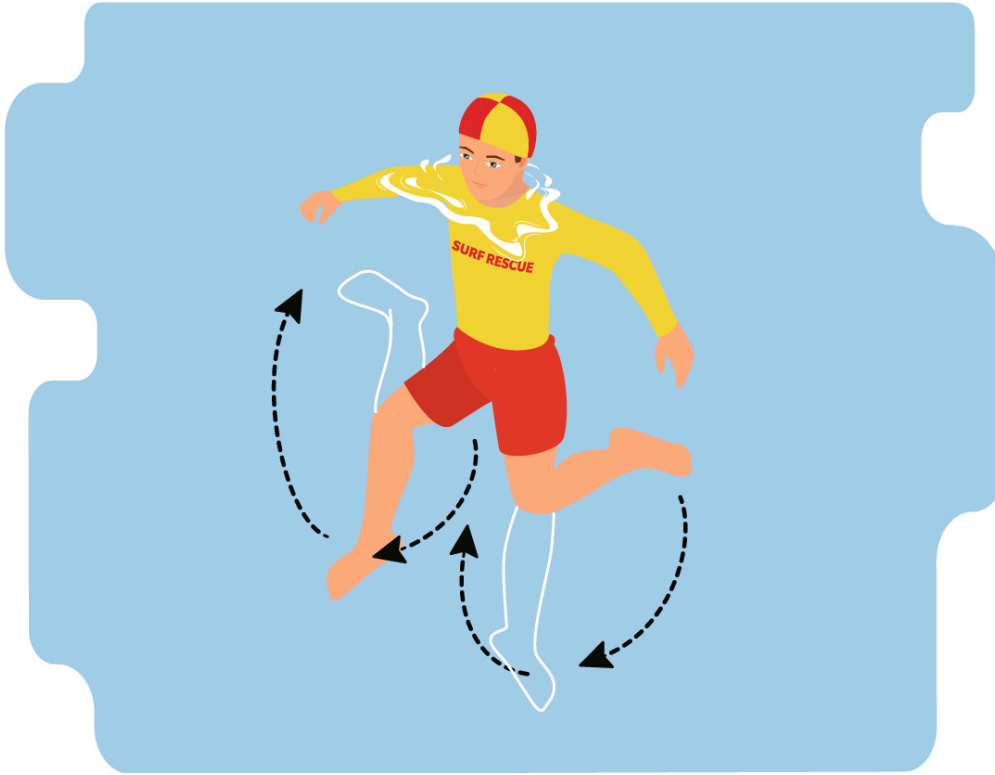
It is important to remember that when floating, you will drift with the prevailing currents.



<https://www.youtube.com/embed/9WOxXvtJCg4?rel=0>

## **Treading water**

Treading water is an effective method of being able to stay in one position with your head above water for extended periods of time.



You can tread water by:

- maintaining an upright body position
- using a sculling motion with your hands and kick with your feet.



<https://www.youtube.com/embed/YKo7bNgsriQ?rel=0>

## Before entering the surf

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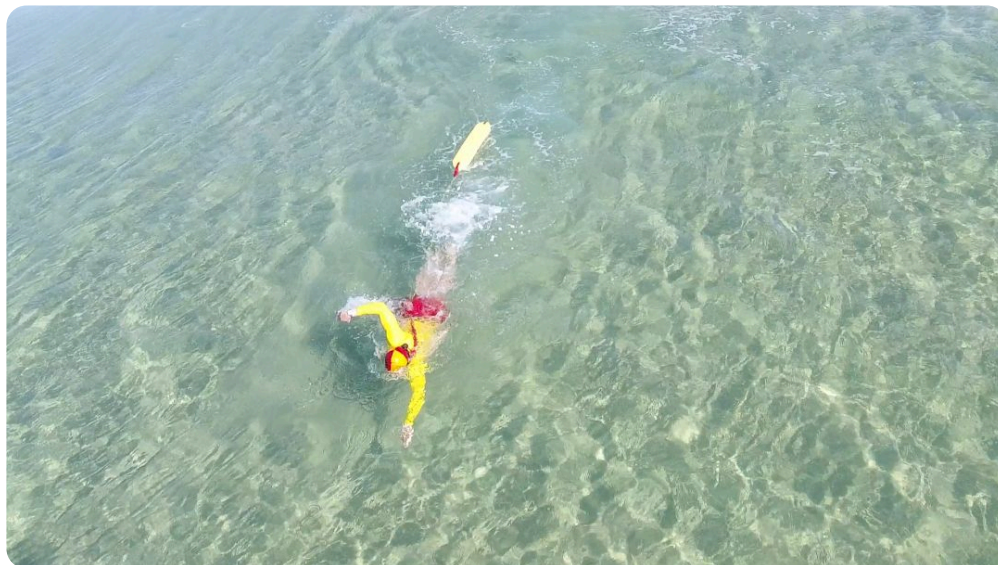
For your safety it is important to review the surf conditions prior to entering the water and plan a course to the victim in the case of a rescue. The following are considerations of particular importance.

- **Landmarking** — make note of a fixed landmarks (such as a sign, a building or a tall tree) that can be seen from the water, and use these as a guide for maintaining your position through the surf zone.
- **Lulls** — time your entry into the surf to coincide with your swim through the surf zone, especially the 'breaker line', with a lull between sets.
- **Other users** — review other surfers' possible impact on you and your safety. Avoid swimming out through the break zone as swimmers, boardriders, surfers or beachgoers may not see you if obstructed by waves or white water.
- **Rip currents** — review the location and strength of rips along the beach for any need to change your course to the victim. Use a rip current as a means of quickly getting out beyond the surf zone faster if it will not take you off course to the victim.
- **Sandbanks** — identify the location of sandbanks and their distance from the shoreline. Calculate whether you could reach the victim faster and conserve more energy by using a sandbank instead of a rip current.



# Surf swimming

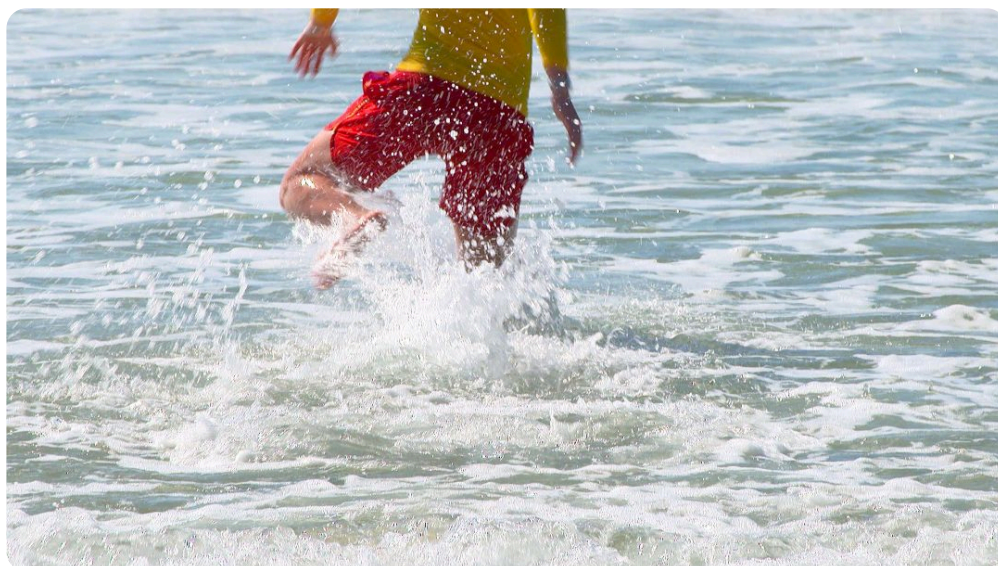
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Practice swimming in a variety of surf conditions, especially choppy water and white water. Because white water is aerated, you will experience less flotation and 'grip' in the water. There are various skills involved in surf swimming, including wading, dolphin diving and bodysurfing.

## Wading

Negotiate the shallows using a high hurdle type of stride to cross shallow sections. This is achieved by lifting your knees and legs high and to the side.



When you reach a depth where your wading progress is slowed, begin dolphin diving ('porpoising') or swimming as necessary.

[https://www.youtube.com/embed/vi/XAPpEfj\\_qmg?rel=0](https://www.youtube.com/embed/vi/XAPpEfj_qmg?rel=0)

## Dolphin diving

This technique helps preserve your forward momentum against the effect of waves trying to push you back to shore.



Follow the steps below to dolphin dive in flat water.

1. Dive forward from waist-depth water with arms outstretched to the sea floor.
2. Grab the sea floor as you bring your feet and hands together.
3. Push off the sea floor with your feet, maintaining your forward momentum to repeat another diving movement.
4. Take another breath as you exit the water and complete another dive.
5. Repeat the process until you reach a depth where your progress is slowed.
6. Check the conditions ahead and start swimming.



<https://www.youtube.com/embed/PDRQQpiK2B0?rel=0>

This process can be varied for small, medium and large wave conditions.

### **Small broken waves**



1. Dive over the top of the wave with arms outstretched to minimise the risk of spinal injury
2. Stand and continue dolphin diving or start swimming.



## Medium to large broken waves



1. Dive under the wave with arms outstretched before the white water reaches you, giving you time to reach the sea floor.
2. Lie as flat as possible and dig your hands into the sand while the wave surge passes over you.
3. Pull forward, draw your legs up under your body.
4. Push off from the sea floor to the surface.
5. Check surf conditions ahead.
6. Start swimming again.

## Large surf and deeper water



1. Dive below the surface before the white water reaches you. You may not be able to reach the sea floor.
2. Wait for the wave surge and turbulence to pass over you.



3. Swim to the surface.
4. Check surf conditions ahead.
5. Start swimming again or wait for a lull.

## Effective use of swim fins

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Swim fins increase your ability to quickly reach and return a victim to shore. They should be stored and carried with rescue tubes at all times.

Follow the steps below to put fins on effectively while entering the water.

1. Wade into the water with the rescue tube in one hand and swim fins in the other.
2. Dolphin dive until it is too deep to continue, or it is more effective to swim



3. Roll onto your back and put on the swim fins during your final dive.



4. Roll back over and continue swimming through the surf zone.



**Note:** Swim fins enhance your performance when swimming with a rescue tube. Practising placing fins on quickly and swimming within the surf zone will develop your skills to perform tube rescues.

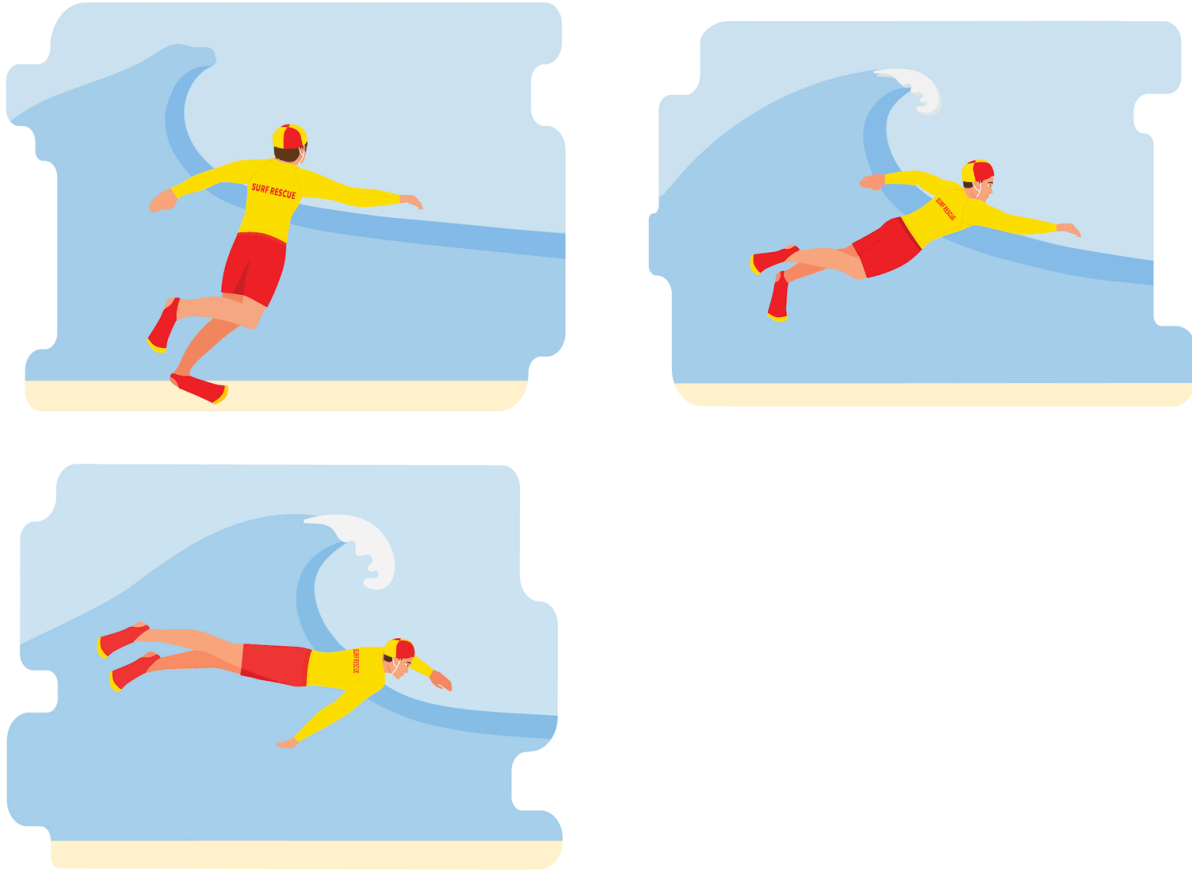


<https://www.youtube.com/embed/2KHpLbvXUq8?rel=0>

## Body surfing

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Spilling waves are the best for bodysurfing. If you catch a plunging wave, injury can be avoided by pulling out or dropping off the back of the wave before it breaks.



Follow the steps below to bodysurf.

1. Push off the sea floor or start swimming towards the shore when the wave is almost upon you and until you feel the wave begin to lift and carry you.
2. Take a breath as you put your head down and kick hard as the wave breaks until your body breaks through the wave. Your feet should be together, your back arched slightly and your arms extended in front of you to minimise the risk of spinal injury.
3. Tilt forward and surf along the face of the wave as the wave becomes steeper.
4. Use arm strokes and maintain your kick to hold your position on the wave. Try to keep your body straight.
5. Pull out of the wave as you approach the beach by turning your body away from the wave's breaking force.





<https://www.youtube.com/embed/KJja-ZrgY9s?rel=0>

**Note:** Using swim fins increases your propulsion through the water and makes catching waves much easier.

## Rescue board paddling

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The rescue board is an essential and versatile piece of rescue and water safety equipment. Board paddling requires balance, strength and endurance as well as wave-catching skills.

To develop board paddling skills, you should practise using rips when entering the water and negotiating waves in calm water or small surf before attempting larger surf or a rescue. Practise paddling a board regularly, as the skill can be lost over time.



# Entering the water

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When entering moving water, especially in 'shore break' conditions, care must be taken to avoid injury or losing your grip on the rescue board.

As you move forward from the shore and into the water, you should either:

- hold the board at your hip with the nose slightly raised
- drag the board by holding the strap closest to the nose.

**Note:** Excessive dragging may damage the board.

If there is a longshore current or a strong wind, always hold the board at your side so that the prevailing conditions carry the board away from you, rather than allowing the board to be pushed onto you. Try and maintain control of your board where possible.



[https://www.youtube.com/embed/N2ic\\_6v93SA?rel=0](https://www.youtube.com/embed/N2ic_6v93SA?rel=0)

Follow the steps below to enter the moving water with a board.

1. Place your board (deck/straps up) on the water while holding on to the straps on both sides.
2. Approach the board from the side; ease your chest onto the board while still holding the straps.
3. Slide your legs onto the deck.
4. Lie down on the board (the prone position). Check the nose of the board is not 'nosediving' or lifted too high, and pull or push yourself up or down the board to 'trim' the board.

The timing of entry is very important where there is a 'shore break'. Wait for a lull and, at the right moment, run into the water, lie on the board and start paddling without stopping or losing momentum. This combination will move you and the board forward through the break zone effectively and is often much safer than stopping to lie on your board and then paddling from a stationary position.

**Note:**

- If the water is shallow, you may need to 'bunny hop' alongside the board until you reach deep enough water to mount the board.
- You may feel more stable with your feet apart and resting on the outside of the board.

# Bunny-hopping

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Bunny-hopping is used to travel through shallow water quickly. This technique is more efficient than trying to paddle in white water that is knee depth.

Follow the steps below to bunny-hop.

1. Place your hands on either side of the board.
2. Lift your legs as high as possible out of the water to prevent drag and put weight on your arms to maximise glide.



3. Land with the foot closest to the board slightly ahead of your other foot.
4. Push off one foot, then the other foot



5. Jump so both feet push the board forward while putting your weight on your arms.





6. Drop onto the board once the water depth increases and start to paddle while the board glides forward.





# Board trim and getting on the board

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Your position on the rescue board determines the board's 'trim'. Look at the nose of the board when you are paddling. If water is constantly streaming over the nose, it is 'nosediving'. If the nose is lifted too high, it greatly reduces your speed. You may need to move regularly on the board to keep the board's 'trim' in the best location. Your trim will also need to be adjusted depending on if you are paddling away from, or towards, the shore.

## Paddling technique

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- [Prone paddling](#)
- [Paddling on your knees](#)
- [Negotiating the surf zone with a board](#)
- [Pushing up on a rescue board](#)
- [Rolling a rescue board](#)
- [Popping a wave](#)
- [Punching a wave](#)
- [Catching waves on a board](#)
- [Paddling with a victim on a board](#)

## Prone paddling

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This is the easiest paddling technique to master, as your centre of gravity on the board is low and this

provides stability. With prone paddling, one arm is in the 'stroke phase' while the other arm is in the 'recovery phase'. Lying face down on the board, you use your arms in a similar way to the arm stroke used in freestyle swimming.



Follow the steps below for prone paddling.

1. Reach each arm, in turn, as far forward into the water as you can, entering the water with a cupped hand (the catch).
2. Push your arm deep into the water, pulling back firmly along the side of the board as far as your hip (the stroke phase).
3. Lift your elbow to bring your other arm out of the water and swing your hand forward (the recovery phase). Your elbow should remain high during recovery phase while your hand runs along the side of the board.
4. Swing your legs up and down in time with your arms. Similar to moving your arms when running, this leg action helps you paddle.



<https://www.youtube.com/embed/a3KfuKbMovo?rel=0>

**Note:** While paddling, keep your chest off the board with head looking forward. This will help you switch on your core muscles. These provide you with more strength, which will move you through the water faster.

## Paddling on your knees

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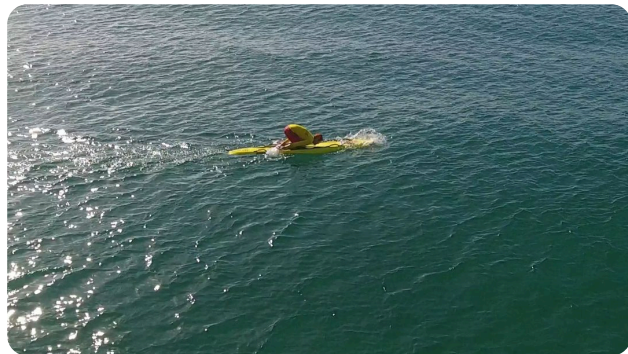
Follow the steps below to paddle on your knees:

1. Kneel on the rescue board (using the knee pads on the deck where available) while the board has forward momentum. Your knees and feet should be placed as wide as possible, to form a stable base of support.
2. Reach forward with both arms as far as possible without losing balance to take the stroke (the catch). As you improve, you will develop a longer reach for each stroke.
3. Push your arms deep into the water, pulling back firmly along the side of the board as far as your hip (the stroke phase). Your arms should pull through the water as deep as possible. Extra strength is gained in the stroke phase by using your torso as well as your arms. By doing this you are using the strength of your whole body and not just your arms.
4. Keep your elbows high as you take both arms out of the water and swing them forward (the recovery phase) along the side of the board to take your next catch.





Paddling on your knees is a skill worth developing, as it allows more muscles of the body to contribute to the stroke, generally making paddling faster and less fatiguing. It does, however, require more skill as it is more difficult to maintain your balance.







[https://www.youtube.com/embed/h\\_aEPnODcZ4?rel=0](https://www.youtube.com/embed/h_aEPnODcZ4?rel=0)

## Negotiating the surf zone with a board

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It is important that your forward energy matches the energy of the oncoming wave to maintain forward momentum, as a wave will pick you up and push you backwards if you stop. This is achieved by limiting the time in which you stop paddling while negotiating a wave or white water. There will be times where you stop and wait instead of paddling into an unsafe position in relation to a breaking wave.

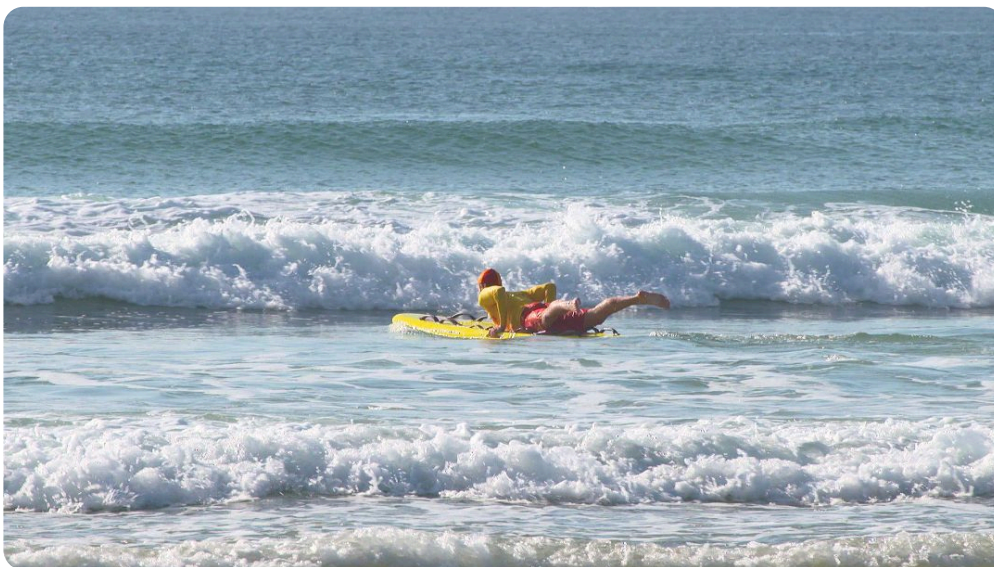


<https://www.youtube.com/embed/VKMZu8tIrRA?rel=0>

In all cases, the rescue board should be positioned directly into the wave (perpendicular) to minimise resistance.

## Pushing up on a rescue board

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Use this 'push-up technique' to negotiate small waves.

1. Just before the wave or white water hits the front of your board, place your hands on the sides of the board and push yourself up off the deck.
2. Let the water pass between you and the board. This reduces the ability of the wave to slow you down or push you back.
3. Lie down as soon as the wave or white water passes your torso.
4. Check the conditions ahead and trim the board.
5. Continue paddling out to sea as quickly as possible to limit the wave pushing you backwards.

## Rolling a rescue board

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Use this 'roll technique' to negotiate medium and larger waves.

Use both hands to grab the straps towards the nose of the board just before the wave or white water hits the front of your board.

Roll the board upside down while:

- holding the straps firmly
- hanging beneath the board
- keeping the board nose pulled down
- pulling your bent arms towards your torso, which will absorb the energy of the wave.



- Roll the board back over when the turbulence has passed.
- Remount the board.
- Check the conditions ahead and trim the board.



- Continue paddling out to sea as quickly as possible to limit the wave pushing you backwards.



**Note:** The sooner you recommence paddling, the faster you will move through the break zone and the more energy you will conserve.

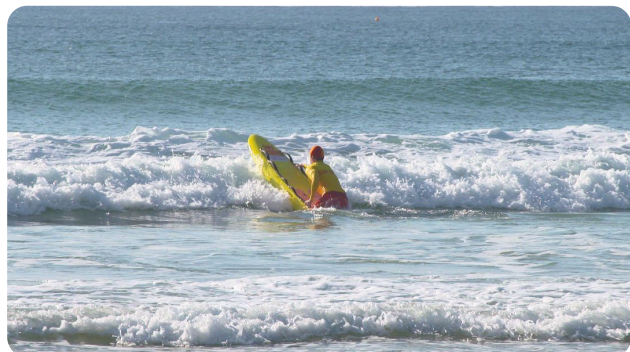
## Popping a wave

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This technique requires a higher level of skill and balance and should be used only for small to medium broken waves. It is commonly used on spilling waves and when negotiating white water.

Follow the steps below to pop a small to medium wave.

1. Sit up on the back of the board as the wave approaches.
2. Lean back just before the wave reaches the nose of the board. Ensure that the nose clears the top of the wave.
3. Immediately thrust your upper body forward into the prone position and grab the straps towards the nose of the board as the wave makes contact with the board. This will thrust the nose into the wave.
4. Check the conditions ahead and trim the board.
5. Continue paddling out to sea as quickly as possible to limit the wave pushing you backwards.







## Punching a wave

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This technique is used on an unbroken wave with a steep or vertical face. In comparison to the roll technique, punching a wave allows you to stay on your board and conserve more energy to reach a victim faster. You will need to practise this technique on different waves to develop the knowledge in relation to which waves are best to punch and when you should use the roll over technique.

Follow the steps below to punch an unbroken wave.

1. Adjust your trim on the board as the wave approaches so that the nose is not lifted out of the water.
2. Lift your paddling rate to increase your momentum.
3. Grab the front board straps and drop your head and shoulders flat onto the board as the wave hits your board. This will reduce your area and assist you to move through the water.
4. Start paddling as your body exits through the back of the wave to stop your board being pulled backwards.
5. Check the conditions ahead and continue paddling.

## Catching waves on a board

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Catching a wave offers a fast means of returning to shore, but great skill and care are needed to maintain control of the board. When catching a wave, it is important to:

- maintain your forward momentum until you have caught the wave
- regularly adjust your trim to maintain the correct balance once you have caught the wave.

Follow the steps below to catch waves on a board.

### Unbroken wave

1. Increase your stroke rate as you paddle ahead of the wave until it picks you up and accelerates you forward.
2. Move your hands back to the line of your hips and hold the side straps of the board as the board slides down the face of the wave.

3. Lift your chest from this position while sliding your weight to the back of the board to prevent nose-diving.
4. Move your arms back to your hip line with elbows projecting away from the board to stabilise yourself if required. Your balance can be further maximised by moving your legs apart in a V-shape.
5. Lean on one of the sides of the board to steer it in that direction. You may also lower one leg into the water to assist a turn.
6. Move your weight forward to trim the board and begin paddling again if you start to 'fall off' the back of a wave.

### Broken wave

1. Keep your forward momentum while paddling ahead of the incoming wave to reduce the impact of the wave.
2. Slide as far back as possible towards the rear of the board and grip the side straps just before the wave reaches you.
3. Stabilise yourself by moving your legs apart in a V-shape.

#### Note:

- If the wave is likely to break on top of you, position yourself on the tail section of the board to angle the nose upwards and grab the side straps.
- If needed, move forward to trim the board when the wave pushes you in front of the white water.
- If you are kneeling, use your hands in the water to stabilise the board.
- Remember to check the conditions ahead.

## Paddling with a victim on a board

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Refer to [Paddling to shore with a victim on a board](#) in the *Rescue module* for more information about the skills required and steps to follow when paddling with a victim on a rescue board during rescue operations.

## Module 4 – Reflection questions

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You are now ready to attempt the eLearning component of your course for this module. You can access the eLearning through the [SLS Members Area](#).

You should also test your knowledge by reading through the following reflection questions. If you find yourself answering 'no' or 'not sure' to any of them, you may wish to speak with your trainer for clarification.

1. Do you understand how the [characteristics of each beach](#) interact, determining how hazardous they are at any point in time (e.g., swell, waves, wind, rips, tide, underwater topography)?

2. Are you aware of the common features of [rip currents](#) and how to [escape one](#) if you are caught in it?
3. Do you know what considerations should be taken [before entering the surf](#)?
4. Are you confident in your use of [techniques to negotiate the surf](#) (e.g., wading, dolphin diving, bodysurfing)?

# Module 5 – Rescue

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- [Rescue principles](#)
- [Rescue Techniques](#)
- [Recognising the Victim](#)
- [Signalling team members](#)
- [Planning the Rescue](#)
- [Undertaking the Rescue](#)
- [Module 5 – Reflection questions](#)

## Rescue principles

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Every lifesaving service follows four important principles.

1. **Prevention**—you will reduce risk and prevent injury in many ways, including the identification and control of hazards, effective surveillance and using appropriate signage to establish swimming and surfing areas.
2. **Recognition**—be alert for the signs of people at risk of aquatic injury or drowning; if in doubt, check it out!
3. **Rescue**—learn and practise the skills required to perform a rescue.
4. **Recovery**—the provision of further support and care to the victim and the return to 'rescue ready' status

Performing a rescue when you are on duty involves:

- recognising the victim



- communication
- deciding on a course of action
- carrying out the rescue
- managing the victim once returned to shore
- post-rescue documentation and debriefing.

At all times you should ensure that any rescue is carried out as safely as possible, with maximum effectiveness and a minimum of delay.

## Rescue Techniques

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- [Preparing for a Rescue](#)
- [Situational Awareness](#)
- [Scanning](#)
- [Scanning Strategies](#)

## Preparing for a Rescue

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### Team preparedness

Prepared methods for minimising hazards and identifying roles in a rescue operation should be discussed and agreed by all team members. This discussion should include:

- a review of conditions to develop strategies for managing conditions
- a review of potential hazards that will be encountered when approaching the rescue scene and how risks can be minimised

- identifying what different levels of skill, experience and qualifications patrol members hold to determine what roles different patrol team members will perform during a rescue
- monitoring and reviewing preparedness as situations or conditions change
- reviewing and checking readiness of equipment
- reviewing the placement of equipment in high risk locations
- understanding common rescue operations and conditions at your beach.

## Personal safety

Maintaining your own safety is a key skill of the lifesaver. It is the responsibility of all team members to check that they have the correct equipment and it is in good working condition. It is also your responsibility to assess and identify the hazards and risks associated with the prevailing conditions. Make sure you let your patrol captain know if you identify a concern.

## Know your limitations

Respect and understand your own and other team members' limitations in varying conditions. Lifesavers should maintain a level of fitness appropriate to the duties they are performing and competency as well as adopt a culture of continuous improvement in relation to skill development. If at any time you feel unsure of your ability to complete a task you have been given, you should discuss this with your patrol captain. Attempting to do something you do not have the ability or confidence to do could put yourself and your team members and others at risk of harm.

# Situational Awareness

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Our primary goal in lifesaving is to reduce drowning. One of the best means we have of reducing drowning is preventing it from happening in the first place. This requires vigilance and skill in identifying and managing situations before they become rescue operations.

## Surveillance of the beach

From wherever you are positioned, whether in a lifeguard tower or walking along the water's edge, you should be able to see the surface area of the water in your surveillance zone (or 'section') and as much as possible of the sea floor (conditions permitting). Remember: if you can't see someone, you cannot save them.

In general, your surveillance priorities will be primary and secondary zones.

### Primary zone

- Area 200m either side of the flags
- Between the flags
- Determined by patrol service agreements or equivalent

### Secondary zone

- Beyond the surf zone
- Designated training area
- Other activity areas

Binoculars are a useful tool for monitoring people over distance, and should be available for water surveillance. The lifesaver should first visually scan an area—without binoculars, which limit peripheral vision—and then use binoculars to zoom in on potential problems.

## Scanning

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Scanning is the systematic watching of the water, beachgoers and their activities. The way in which you scan will be influenced by a number of factors, including:

- beach layout and any special geographical features
- the level of experience and training of the team members on patrol duty
- the number of beachgoers and their activities
- the number of team members and their location
- the shape and size of the surveillance area
- weather and surf conditions affecting visibility.

**Note:** You can adopt an elevated position and wear polarised sunglasses to improve your effective vision over a greater distance.

### Key principles

When scanning, you should move your head, not just your eyes, because looking directly at an object improves vision. You should be able to:

- hear any unusual sounds that might alert you to any risks to swimmers

- hear noises that beachgoers are making
- hear what your colleagues might be saying to you
- identify where other team members are positioned
- notice any unfamiliar smells that might indicate an emergency or hazards to patrons
- notice changing weather conditions
- see the general movements of swimmers and the number of patrons.

## Scanning as part of a team

If you have several qualified people available, it is a good idea to divide the beach up into sections or zones that you can each focus on scanning. When you do this, it is good practice to position yourself so that:

- your area overlaps slightly with the areas adjacent to you
- you can still see the person(s) supervising the adjacent area(s) to yours.

Scanning in this way means that in the event of an emergency:

- other people can signal to you if they need assistance
- you are able to maintain scanning of the water when incidents occur by creating more overlap between your respective areas
- you are available to help with crowd control during an incident.



## Scanning techniques



Research indicates that drowning can occur in seconds. The less time it takes to scan an area effectively, the better. Lifesavers come to know their local beach's usual sights and sounds and patterns and rhythms of activity for any given period after patrolling for some time.

When scanning you will need to change your focus to suit your scanning strategy. The different focus types include:

- **fixed focus**—watch specific people to see what they are doing and listen for anything unusual
- **wide focus**—use your peripheral vision and side vision, to detect movement and notice activity
- **moving focus**—move your eyes at a moderate pace across the surveillance area, sweep back and forth to take in environmental conditions that might affect patrol behaviour and safety issues. Use moving focus for short periods only.

## Avoiding scanning fatigue

Watching the water for long periods of time is difficult to do. Your effectiveness gradually decreases over time, and you will be less observant the longer you watch. You can avoid fatigue by:

- avoiding staring at the one spot without actually seeing what is happening
- changing your focus
- giving your eyes a rest by focusing momentarily on some distant object or on the horizon
- moving your head and eyes, i.e., not just sweeping with your eyes

- rotating positions with your team members regularly.

**Note:** It is recommended that scanning from a fixed location is limited to a maximum period of 30 minutes before rotation of personnel or a change of position needs to occur.

## Scanning Strategies

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The following are commonly used scanning strategies.

### Grouping

Group beachgoers in an area by their activity, such as swimming, non-swimmers, wading or surfing.



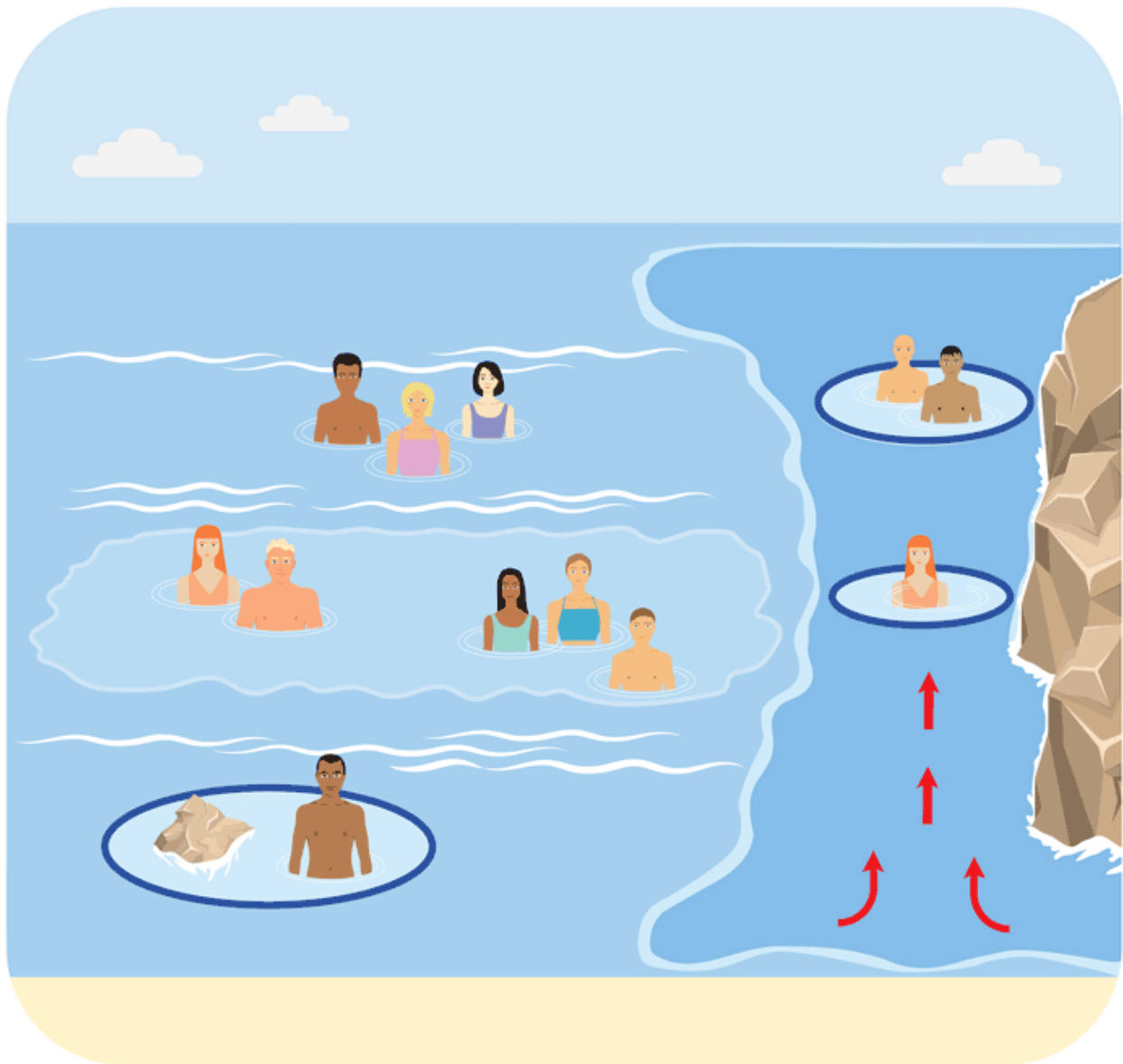
### Head counting

Count the number of heads in the area, e.g., surfers intermittently visible in large swells or surf.



## Hot spots

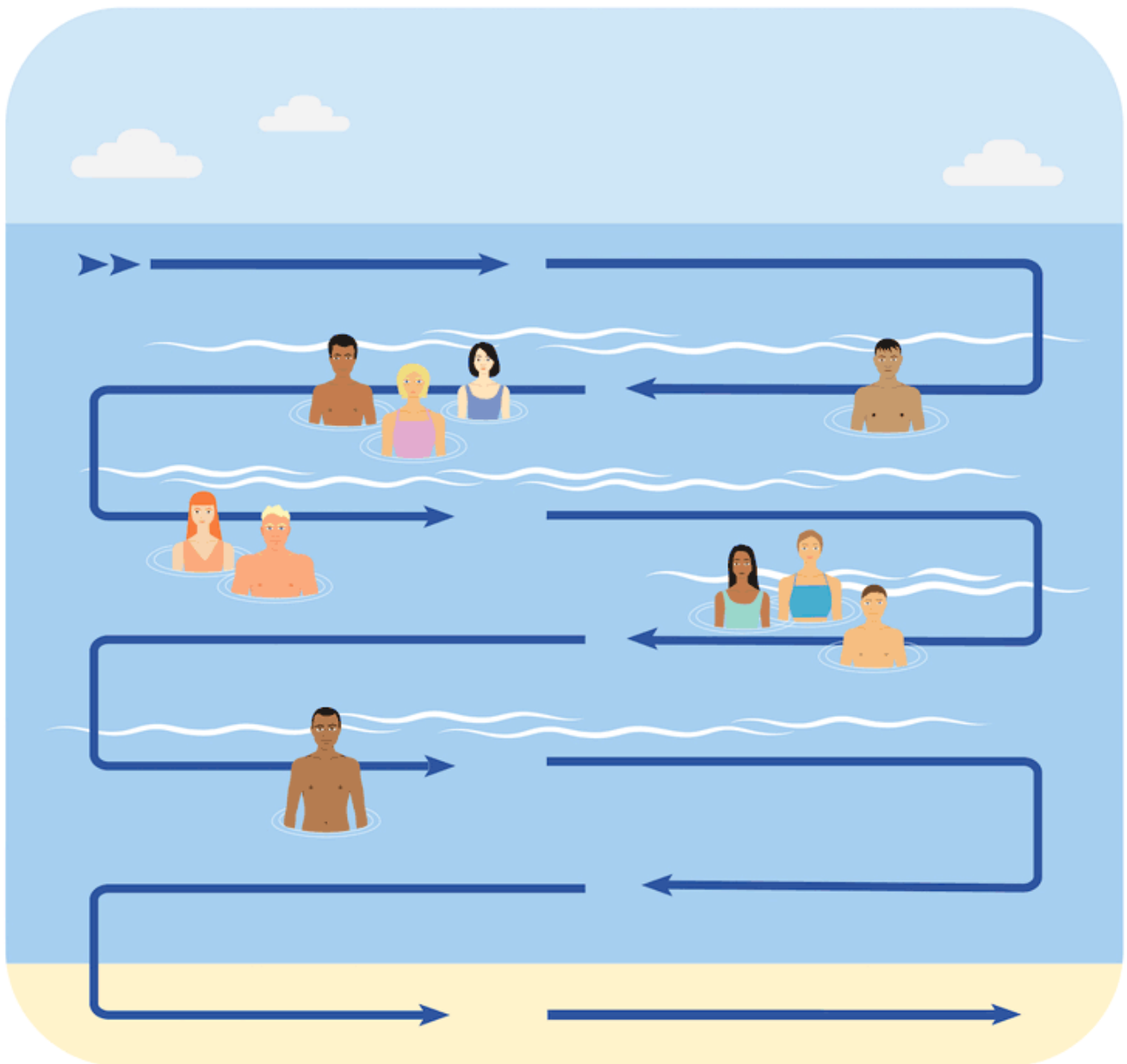
When scanning the water, be sure to always look at identified hazard including rip currents, headlands, shallow sandbanks, etc. A scan of the water should always consider above and below the surface.



### Horizontal scanning

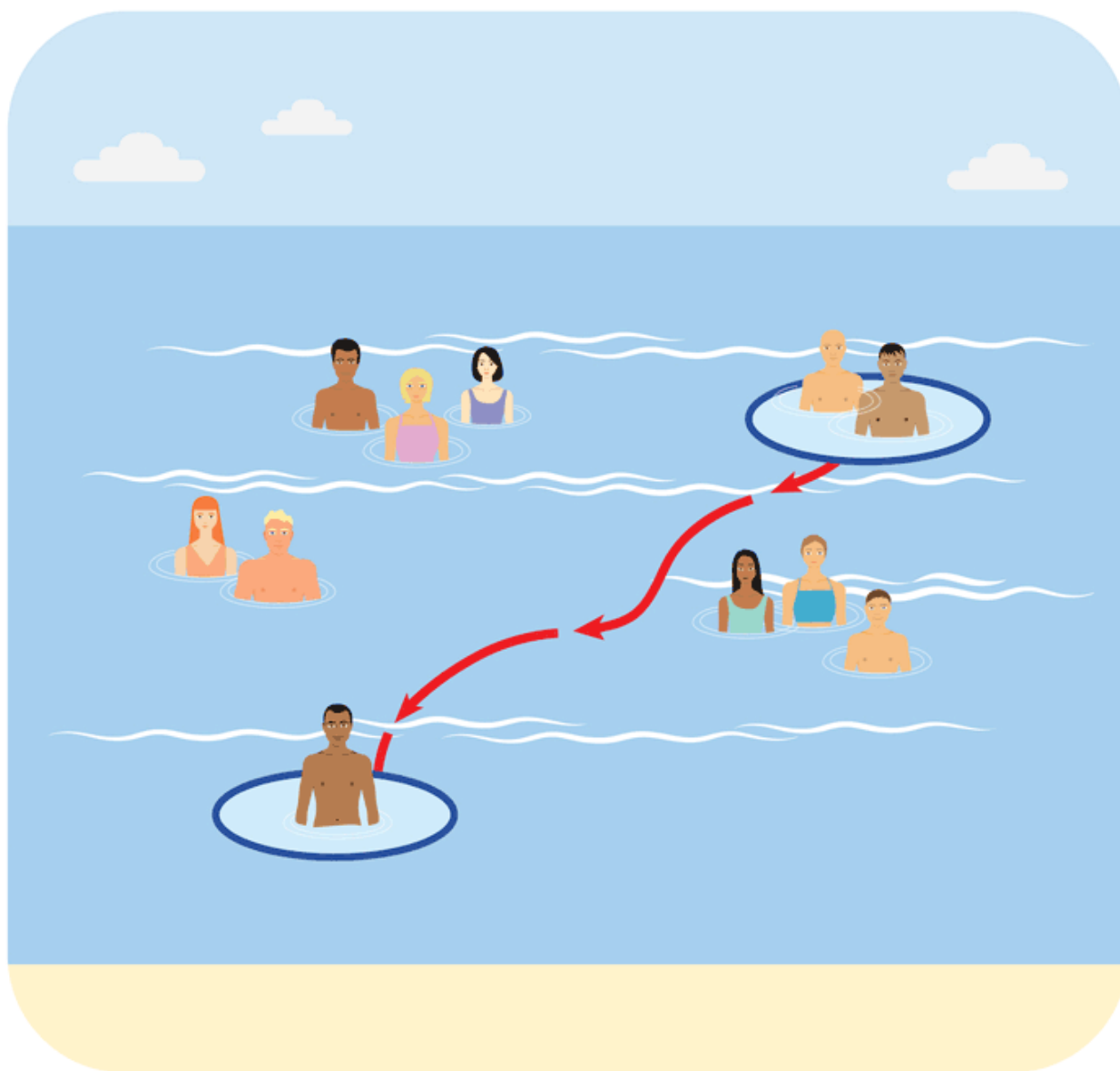
Moving from left to right, starting on the horizon and working back towards your feet.





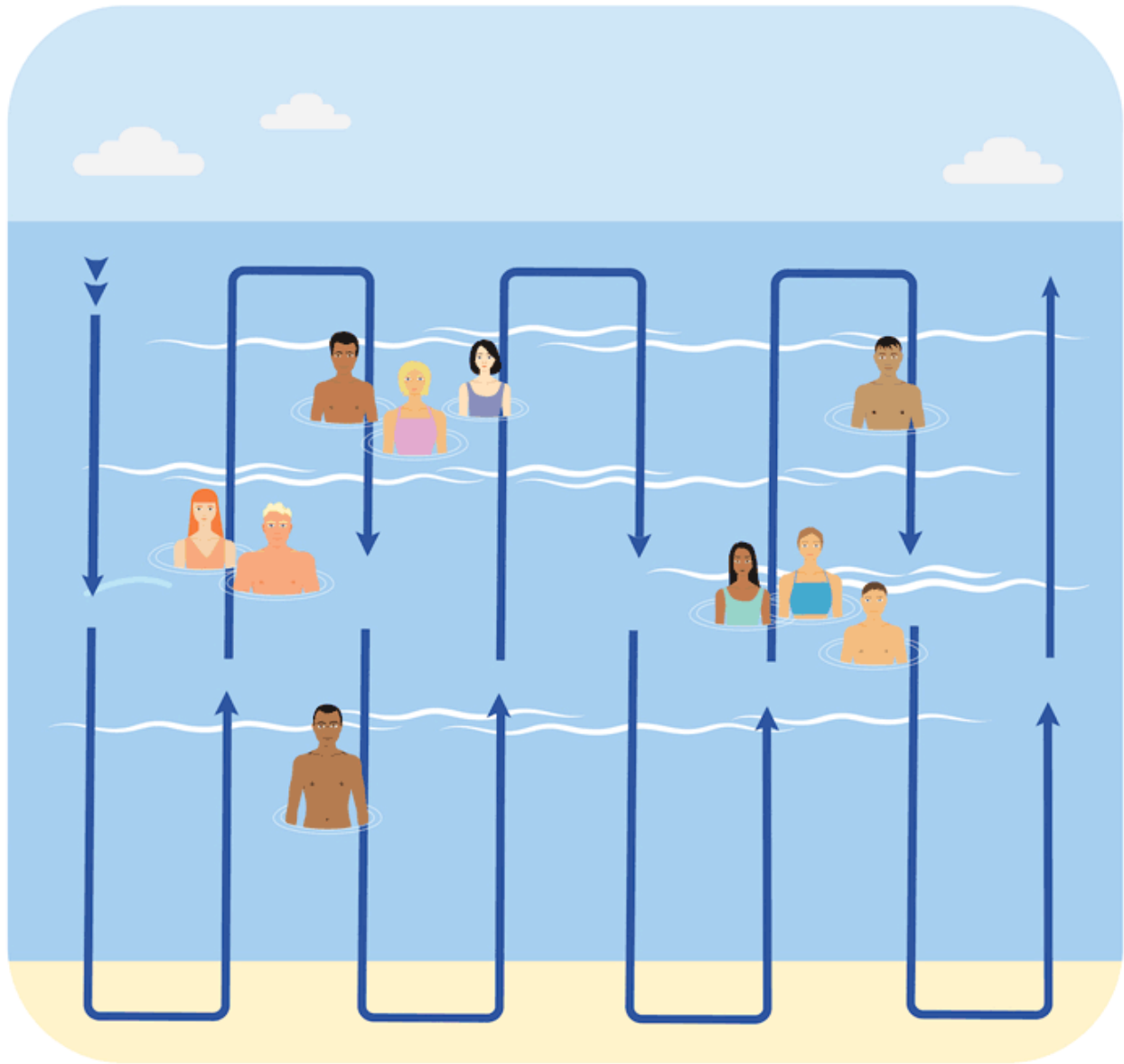
## Tracking

When relevant, focusing on a particular person in the water and tracking their movement, such as a surfer or bodysurfer. This is useful when monitoring high-risk groups.



### Vertical scanning

Moving left to right, starting at the limit of your peripheral vision and concluding at the opposite end of your peripheral vision.



## Recognising the Victim

Trained lifesavers should always position themselves with their eyes on the water to watch for people at risk. While scanning your area of responsibility, pay particular attention to the water conditions and their potential effects on swimmers and beachgoers.

A sense of anticipation and an understanding of people's behaviour can help prevent problems that lead to rescues. People in high-risk groups need to be watched with special attention.

- **Age extremities**—very young and very old people. Young children might need to be intercepted if they approach the water without adult supervision.
- **Beach/surf novices**—this applies to anyone who appears unfamiliar with the beach or surf environment, e.g., international and domestic tourists and people who have recently moved or immigrated to live along Australia's coast.

- **Float users**—swimmers wearing flotation devices are unlikely to have adequate swimming skills.
- **Overweight people**—these people may be in poor physical health condition.
- **People improperly dressed for beach conditions**—be wary of people who attempt to swim in clothing that is unsuitable for the surf, e.g., jeans.
- **Unstable or intoxicated people**—those who show a lack of coordination.

## Characteristics of different types of victims

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Most people are not buoyant without lungs full of air and the aid of supportive strokes of the arms and legs. For weak, exhausted or injured people, the loss of buoyancy in deep water is a life-threatening emergency.

It is important that you can recognise the difference between a distressed and a drowning victim. It is noted that the signs of a distressed victim will be highly visible where a drowning victim will be much more subtle.

### Distressed victims



A victim who is in distress is struggling to maintain buoyancy and unable to return to safety without assistance. Signs of a distressed victim include:

- a swim stroke that barely clears the water with no visible kick
- attempting to swim towards safety
- an awkward position in the water caused by grasping an injured limb or body part



- calling for help, raising or waving an arm
- clinging to an object
- flailing arms
- facing the shore
- holding their breath, cheeks puffed out, displaying a wide-eyed fearful look
- having hair in their eyes as they are more concerned about keeping their head above water
- making no attempt to duck under a wave
- two heads together as two people try to keep each other afloat.



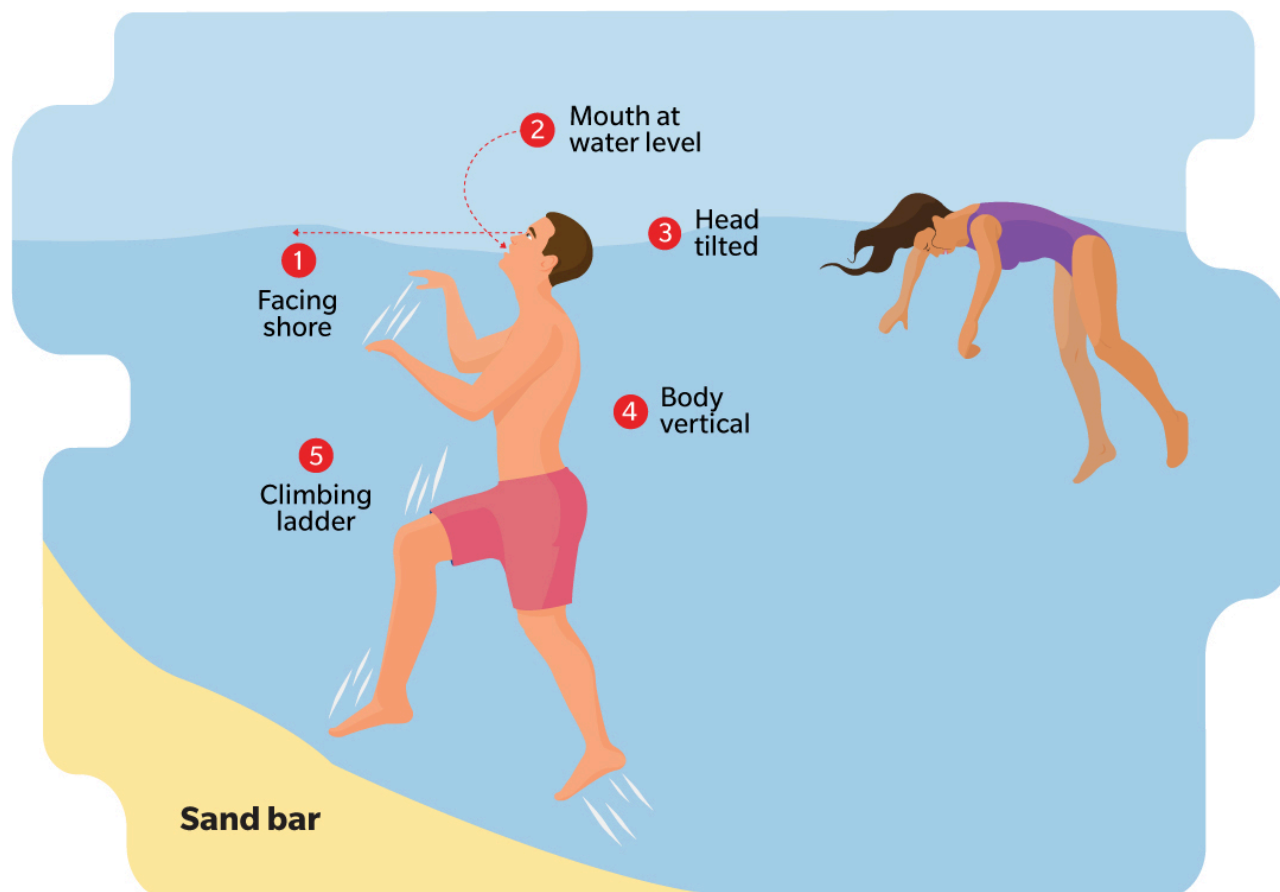
[https://www.youtube.com/embed/nb1k1ZQy6\\_c?rel=0](https://www.youtube.com/embed/nb1k1ZQy6_c?rel=0)

## Drowning victims



Drowning victims are unable to support themselves in a position that maintains their air supply. Drowning victims usually have little or no buoyancy. Signs of a drowning victim include:

- bobbing up and down
- facing the shore
- floating face down at or below the surface
- ineffectively treading water with their head tilted back ('climbing the ladder')
- limited attempts to call for help, raise or wave an arm
- lying immobilised underwater
- mouth at water level
- non-supportive leg action
- vertical body position.



## Drowning process



[https://www.youtube.com/embed/w6X2lOw39\\_o?rel=0](https://www.youtube.com/embed/w6X2lOw39_o?rel=0)

Drowning is defined as the process of experiencing respiratory impairment from submersion/immersion in liquid. The drowning process may result in fatal drowning or non-fatal drowning.

Below are the main stages of the drowning process.

- **Airway compromised**—normal breathing is interrupted as the victim's face is immersed in water. The victim may initially hold their breath but will then cough and begin vigorous breathing efforts while both swallowing and inhaling water. The victim has difficulty maintaining buoyancy for a period of time.
- **Instinctive reflex**—the victim loses buoyancy and may be below the surface. After a period of time holding their breath, the urge to breathe becomes overwhelming and a victim will attempt to inhale despite being under water. This inhalation introduces water into the airway, preventing oxygen from reaching the alveoli and damaging the lungs. Swallowing water may also cause the victim to vomit or regurgitate.
- **Unconsciousness**—the victim becomes unconscious due to decreased oxygen delivery to the vital organs, including the brain and heart. Brain cells begin to suffer due to lack of oxygen and will quickly die if oxygen supply is not restored. The victim is usually below the surface.
- **Death**—the lack of oxygen leads to progressively worsening heart function, then finally the complete cessation of any heartbeat.

## Fatal drowning

The victim experiences respiratory impairment from submersion/immersion in liquid, which leads to unconsciousness then death.

On average, there are 99 fatal drownings on Australia's coast each year<sup>[18]</sup>. For more information on coastal drowning, refer to the [SLSA National Coastal Safety Report](#). This report is produced annually.

Always follow your local SOPs when assisting with body retrieval operations. You may also refer to SLSA Emergency Management Guidelines in the SLS Members Area Document Library for more information.

## Non-fatal drowning

The victim experiences respiratory impairment from submersion/immersion in liquid. Water has entered their airways, which may cause them to become unconscious and/or suffer an ongoing illness from the event.

Victims may be rescued from underwater and be conscious or unconscious. Conscious victims may report swallowing water and experiencing coughing spasms. Other signs may include:

- disorientation
- persistent coughing
- vomiting
- water draining from the mouth and nose.



Any victim who has experienced a non-fatal drowning event must not be left unattended and should receive further medical treatment as water within a victim's lungs can lead to serious complications. Always follow DRSABCD protocols.

On average, there are 38 non-fatal drownings on Australia's coast each year<sup>[19]</sup>. For more information on non-fatal drowning, refer to the SLSA National Coastal Safety Report. This report is produced annually and is available on the [SLSA website](#).

## Signalling team members

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It is not always possible to clearly talk with, or radio, another member of your patrol team when undertaking patrol and rescue operations. Under these circumstances a lifesaver can communicate using signals, which are an essential part of surf lifesaving communications. Lack of knowledge of these may result in tragedy.

Signals can be given using your arm, or by holding a tube or flags to increase your visibility. Your patrol equipment will include tubes as well as two signal flags (orange with a blue diagonal stripe 100mm wide) that can be used.

All signals should be made distinctly, and repeated until they are acknowledged or until it is certain they have been understood. In all cases, acknowledgment of each signal should be given as soon as it is understood.

When in the water, including on craft and boats, lifesavers should look often to the beach for signals

being communicated, e.g., message understood, return to shore.

# Beach to Water Signals

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## Attract attention



<https://www.youtube.com/embed/tvSx9zKdeJg?rel=0>

Two flags, tubes or arms waved to and fro, crossing above the head.

## Pick up swimmers



<https://www.youtube.com/embed/WdzNEsa9ibU?rel=0>

One flag, tube or arm waved in a circular manner around the head and a second flag, tube or arm held parallel to the water's edge and horizontal to the ground. After acknowledgement by the craft ('message understood' signal), direct it to swimmers in trouble as required, e.g., further out to sea.

## Proceed further out to sea



Two flags, tubes or arms held vertically above the head.

## Go to the right or to the left







One flag, tube or arm held at arm's length, parallel to the ground and pointed in the required direction.

### **Remain stationary**



Two flags, tubes or arms held at arm's length, parallel to the ground.

### **Message understood, all clear**



<https://www.youtube.com/embed/bdWmU2MsGTw?rel=0>

One flag, tube or arm held stationary above the head and cut away quickly to the side.

### **Pick up or adjust buoys**



<https://www.youtube.com/embed/D46UH7qKXLw?rel=0>

Two flags, tubes or arms raised up and down from 45 degrees below horizontal to 45 degrees above horizontal. After acknowledgment by a craft ('message understood' signal), direct it to the buoys as required.

## Return to shore



One flag, tube or arm held vertically above the head.

## Water to Beach Signals

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When you are on duty in or on the water, you should regularly check the shore to see if you are being signalled.

All signals should be clearly demonstrated, and the message understood before proceeding.

### Assistance required





<https://www.youtube.com/embed/VtVQG-uu7S8?rel=0>

One arm waved to and fro above the head. Used at any point in time to indicate that assistance is required while performing a rescue, e.g., when unsafe to return to shore, to lift a heavy victim.

Beachgoers may raise one arm if they need help.

### **Shore signal received and understood**



<https://www.youtube.com/embed/kvK4LkrM5os?rel=0>

One arm held vertically above the head, then cut away sharply to the side.

## Emergency evacuation alarm



Both arms held vertically above the head.

## Submerged victim missing



Both arms raised to form a cross above the head. Used to indicate that a swimmer is missing and presumed submerged. This may mark the last known location of missing swimmers.

**All clear/OK**

Touch the middle of the head with the fingertips of one hand. Used to indicate that no help is required in performing the rescue.

**Powercraft wishes to return to shore**





<https://www.youtube.com/embed/fx5E0bf61mM?rel=0>

One arm raised up and down from horizontal to 45 degrees above the horizontal, in a waving motion. You must acknowledge the signal, clear a path for the return to shore and signal to show the path to be taken by the powercraft. This should be the path that leads to your position on the beach. Whenever a powercraft is returning to shore with a victim, it is important that you are waiting at the water's edge to receive the victim.

# Signals



## Beach to water signals



1. Attract attention



2. Pick up swimmers



3. Proceed further out to sea



4. Go the right or to the left



5. Remain stationary



6. Message understood, all clear



7. Pick up or adjust buoys



8. Return to shore

## Water to beach signals



9. Assistance required



10. Shore signal received and understood



11. Emergency evacuation alarm



12. Submerged victim missing



13. All clear/ok



14. Powercraft wishes to return to shore

To view more SLS training resources, refer to the SLS Members Area Document Library. June 2019.

[Download from SLS Members Area](#)

# Tower Signals

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## Mass rescue

A series of three blasts of the siren is given. On this alarm, all available qualified persons are to assist and report to the patrol captain on duty.

## Emergency evacuation alarm



The emergency evacuation flag (red and white, quartered) is waved or held out of the tower, and the alarm bell or siren is sounded continuously until everyone is out of the water.

## All clear/beach open

A public announcement is made over the loudhailer/PA system.

# Planning the Rescue

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If you need to go to the assistance of someone in danger, always immediately inform your patrol captain or a team member of the situation by:

- speaking directly to them
- using a radio
- using hand or flag signals.

# Pause and Plan

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You will need to pause and plan to collect as much relevant information about the emergency as you can to help inform your rescue method. You should quickly ask yourself:

1. What is your emergency action plan (DRSABCD)?
  - What dangers exist at the scene to yourself, others and the victim(s)?
2. Whom do you need to contact?
  - have you sent for help?
  - what do your local SOPs require?
3. Do you need assistance?
  - how will you arrange assistance?
  - is assistance nearby?
4. Can you perform a rescue immediately?
  - what are your limitations?
  - what are you trained to do?
  - what equipment is available?

Use the '4 Ps' to pass on information quickly and effectively when requesting assistance—position, problem, people and progress. Your patrol captain can use this information to:

- inform your surf lifesaving communication centre and/or support operations, e.g., rescue water craft, offshore rescue boats, helicopters
- issue instructions to you or other members of your team
- send for help—ambulance, police, etc.

Check your local SOPs for calling other emergency services.

# Rescue Method

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Being able to use the most effective method of rescue in the prevailing conditions comes from experience and training. The rescue methods described in this module are the preferred options, but flexibility is also necessary.

Additionally, when you make contact with a victim, consider whether it is safer to return to shore immediately or to signal for assistance and wait for support.



# Deciding on a Plan of Action

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## Deciding on a course of action









All rescues involve some risk to the rescuer's safety. Unfortunately, every year in Australia some people drown trying to save others, though this is rare with trained lifesavers.

SLSA does not recommend performing rescues without equipment as they pose a significant risk to both yourself and the victim. The benefits of rescue equipment include:

- faster access to your victim
- protection from a distressed victim
- support for you and/or your victim(s)
- a faster return to shore.

However, a lifesaver may find themselves in a situation that calls for a rescue without a flotation device, such as when off-duty or at an unpatrolled beach. Understanding the advantages and disadvantages associated with each rescue method, and the available equipment, helps you to reduce the level of risk associated with rescues and select the most effective rescue method.

## Advantages and disadvantages of different rescue methods

Rescue method	Advantages	Disadvantages
 <p><b>Without flotation device</b></p>	<ul style="list-style-type: none"> <li>• Immediate assistance if nearby when no flotation device is available</li> </ul>	<ul style="list-style-type: none"> <li>• Highest risk to lifesaver</li> <li>• Longer timeframe to reach victim and return to shore</li> <li>• No flotation device for support</li> </ul>
 <p><b>Tube rescue with swim fins</b></p>	<ul style="list-style-type: none"> <li>• Equipment is attached to lifesaver</li> <li>• May be easier to negotiate larger waves</li> <li>• Two tubes can be attached together</li> <li>• Useful if near rocks or between the flags</li> </ul>	<ul style="list-style-type: none"> <li>• Can support only one to two victims</li> <li>• Swim fins may slow down progress through shallow water</li> <li>• Takes longer to get victim to shore</li> </ul>
 <p><b>Board rescue</b></p>	<ul style="list-style-type: none"> <li>• Can provide flotation for up to five people</li> <li>• Faster response time to victim and return to shore than tube</li> </ul>	<ul style="list-style-type: none"> <li>• Hazardous if board lost among swimmers in surf zone</li> <li>• Hazardous near rocks</li> <li>• Lifesaver not attached to equipment and can lose equipment</li> <li>• Requires a higher skill level</li> </ul>
 <p><b>Inflatable rescue boat (IRB) or rescue water craft (RWC)</b></p>	<ul style="list-style-type: none"> <li>• Can cover large distances</li> <li>• Faster response time to victim and return to shore than board rescue</li> </ul>	<ul style="list-style-type: none"> <li>• Hazardous between the flags</li> <li>• May capsize</li> <li>• May not be nearby</li> </ul>
 <p><b>Jet rescue boat (JRB), rigid inflatable boat (RIB) or offshore rescue boat (ORB)</b></p>	<ul style="list-style-type: none"> <li>• Ability to respond to unpatrolled and/or remote locations</li> <li>• Can handle large surf conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Hazardous between the flags</li> <li>• May capsize</li> <li>• May not be nearby</li> </ul>
 <p><b>Helicopter</b></p>	<ul style="list-style-type: none"> <li>• Can convey victim directly to hospital</li> <li>• Can reach difficult locations such as cliff ledges</li> <li>• May carry paramedics</li> </ul>	<ul style="list-style-type: none"> <li>• May not be able to land in immediate vicinity</li> <li>• Needs to be deployed by external agency to SLS in many locations</li> <li>• Time to deploy and arrive at your location</li> </ul>

## Key factors influencing rescue decisions

There are four key factors that may influence your course of action in a rescue situation.

## 1. Victims

The number and condition of victims defines the number of lifesavers and the equipment required for an effective rescue. Selection of equipment should get you to the victim(s) in the fastest time.

When selecting your equipment, you need to consider the following questions:

- what are your personal safety limitations?
- what is the size of the victim(s)?
- what is the condition of the victim, e.g., conscious or unconscious?
- what equipment can support multiple victims?

## 2. Distances

- Consideration should be given to the following questions:
- how far away is the victim(s) from the lifesaving service?
- how far away is the victim(s) from the shoreline?
- what is the closest access point?
- where is the best place to return to shore safely?

## 3. Conditions

Use the surf conditions to your advantage. Try to time your entry into the water to swim through the surf zone during a lull and use favourable rips and currents to reach victim(s). As surf conditions become more hazardous, so do the risk factors associated with each piece of equipment. If the conditions are too dangerous for the equipment available, support operations with helicopters and rescue water craft (RWC) may be the best choice.

## 4. Resources

Consideration should be given to the following questions:

- what are your abilities and the skills of fellow lifesavers?
- what equipment is available?
- what is your level of physical fitness?
- what is your size in comparison to victim(s)?
- what number of lifesavers are available?

Always try to match equipment with your and fellow lifesavers' skills.

The scenario risk matrix in the Scenario Risk Matrix table below provides a guide to the resources needed for rescue operations; however, its application will vary with local surf conditions, the victim's condition, and the availability of local resources. For example, if the victim is close to shore in a rip, it may be faster to use a board than a tube and rescue them before they are swept out beyond the surf zone. Always review your situation and choose the type and number of resources accordingly. It is

recommended that this scenario matrix be discussed by members of every lifesaving service.

### Scenario risk matrix table

	Distance from shore	1 to 2 victims	3 to 5 victims	6 to 10 victims	11+ victims
<div>Low Risk</div> <div>↑</div> <div>↓</div> <div>High Risk</div>	Close to shore (0–50 m)	Rescue tubes	Rescue tubes and rescue boards	IRB and rescue tubes/rescue boards	All patrol resources available and support operations
	From shore to beyond surf zone (30–150 m)	Rescue boards and rescue tubes	IRB and rescue boards/rescue tubes	IRB, rescue tubes/rescue boards and support operations	All patrol resources available and support operations
	Beyond surf zone (100–300 m)	IRB and rescue boards	IRB and rescue boards	IRB, rescue boards and support operations	IRB, rescue boards and support operations
	Well beyond the surf zone (250–500 m)	IRB and support operations	IRB and support operations	IRB and support operations	IRB and support operations
	Out to sea (450 m +)	Support operations	Support operations	Support operations	Support operations
		Low Risk	←	→	High Risk

## Undertaking the Rescue

Once a course of action has been decided on, reaching your victim(s) in the shortest amount of time is crucial.

Taking a few seconds to review the position of your victim in relation to the surf, wind direction, currents and the position of rip currents can save you precious time in a rescue situation.

For all lifesavers, below are the major considerations.

## Victim approach

Follow the steps below when approaching a victim.

1. Plan your approach.
2. Continue scanning to monitor their location and condition.
3. Consider if there will be any language or cultural sensitivities when communicating with the victim.
4. Reassure them as soon as possible and at a safe distance—introduce yourself, ask questions, remind them to breathe normally.
5. Position available rescue equipment between you and the victim and/or take a defensive position



(see *Defensive position*).

6. Continue to assess and control the risks.

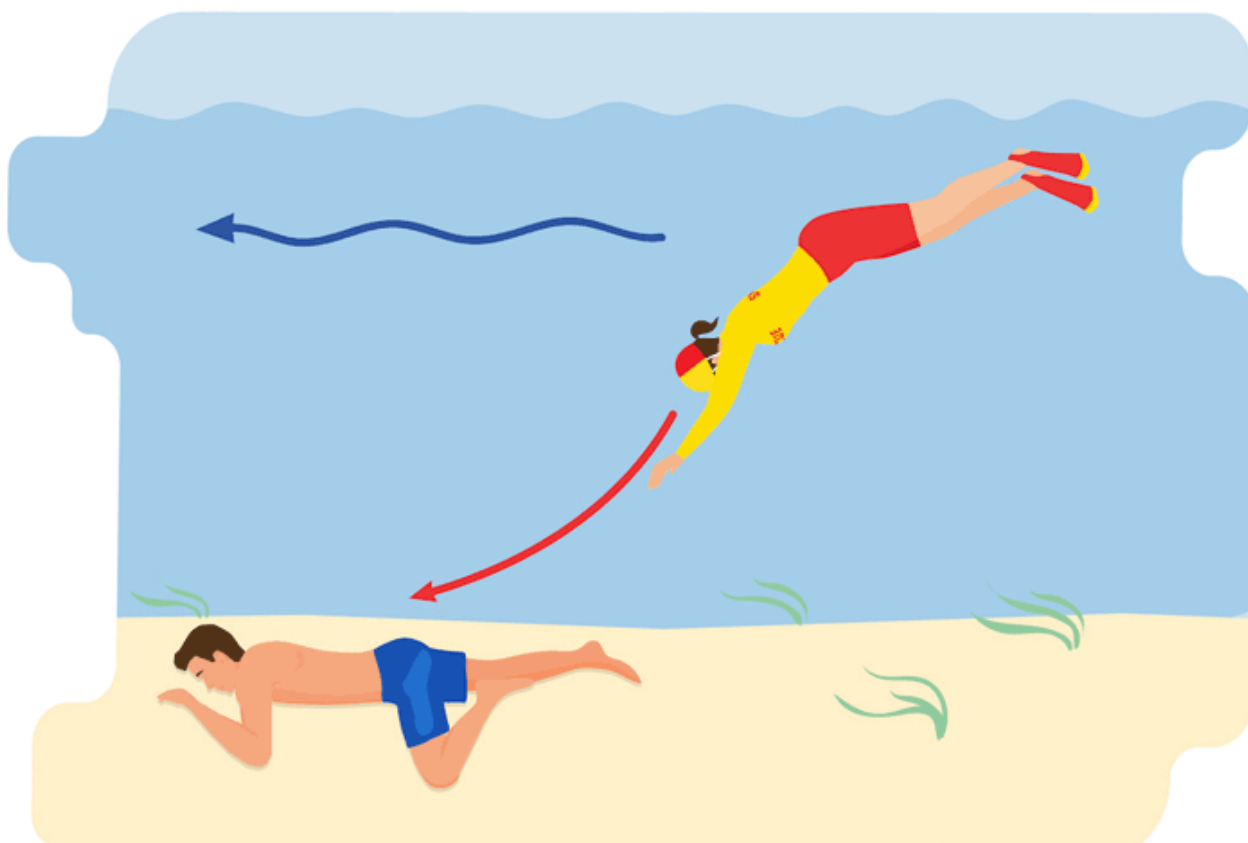
Follow the steps below if you see a victim go underwater.

1. Note the approximate location, with reference points if possible, and consider the effect of rips and currents
2. Signal for assistance.
3. Perform a surface dive:
  - head-first surface dive when the victim can be seen under the water
  - feet-first surface dive when in unfamiliar murky water.
4. Give the 'submerged victim missing' signal if you cannot find a submerged victim.

Follow the steps below when you reach a submerged victim.

1. Grasp the victim under the armpits from behind.
2. Bring the victim to the surface. Push off the bottom if possible.
3. Signal 'assistance required'.

**Note:** Remove any diving weights if the victim is a diver.



# Defensive position

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Drowning people are scared and often irrational. They may put you in danger when you go to their aid. To prevent being harmed by a drowning victim, you should approach:

- by floating on your back and sculling with your arm while you communicate with the victim to keep them calm
- with one foot extended towards them while providing reassurance that you are there to assist.



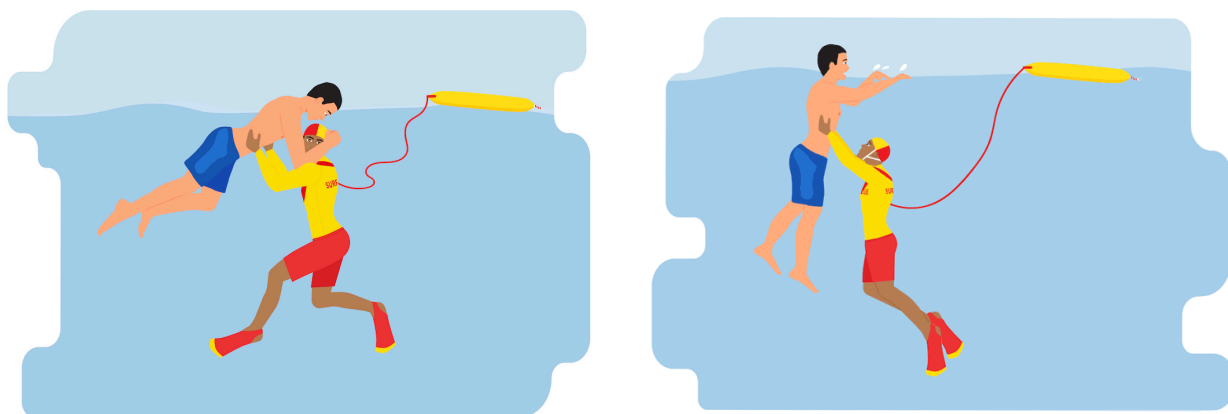
## Releases and escapes

---

In the water a distressed victim might grab hold of you; this presents a serious danger to any lifesaver. It is essential that you are able to release yourself and escape from a victim if this situation occurs.

**Note:** You are not attempting to lift the victim out of the water. Your aim is to push yourself below the surface and away from the victim.

## Front release and escape

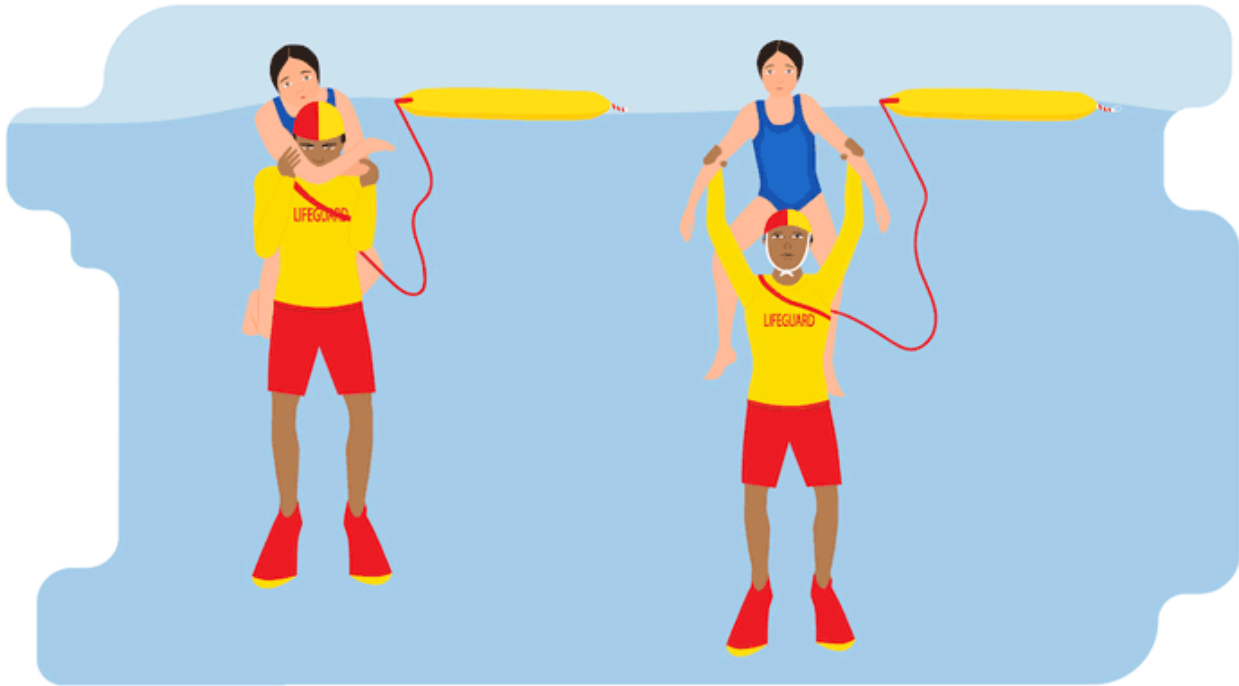


1. Tuck your chin to your chest.
2. Put your hands against the body of the victim; under the rib cage is recommended.
3. Push yourself down and swim away from the victim.
4. Surface at a safe distance from the victim.
5. Push your rescue equipment towards the victim.
6. Reassure the victim.



<https://www.youtube.com/embed/EXPrMiH7oE?rel=0>

## Rear release and escape



1. Tuck your chin to your chest.
2. Place your hands on the victim's elbows.
3. Push yourself down and away from the victim.
4. Surface at a safe distance from the victim.
5. Push your rescue equipment towards the victim.
6. Reassure the victim.





<https://www.youtube.com/embed/QNM1dmidXJE?rel=0>

## Rescues without equipment

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Rescues can occur at any time. You may need to perform a rescue without equipment. SLS does not recommend performing rescues without equipment as they significantly increase the risk to you and the victim. Use the following techniques if you must perform a rescue without equipment.

### **Hip carry**



The hip carry method can be used for taking a conscious or unconscious victim back to shallow water.

1. Approach the victim while monitoring their position and progress.
2. Reassure the victim.
3. Adopt a defensive position at a safe distance.
4. Explain to the victim how you will proceed with the rescue.
5. Move behind the victim and put your preferred arm over the victim's corresponding shoulder, across the chest and under the armpit, clamping the victim to your body.
6. Proceed towards the shore using a sidestroke, with your hip close to the small of the victim's back.



<https://www.youtube.com/embed/M0QY1YW-ieU?rel=0>

**Note:**

- If the victim starts to struggle, obtain a firmer hold by using your arm to clamp their shoulder against your chest, and reassure them.
- Use release and escape techniques if you feel you are in danger at any point during the rescue.

## Wrist tow



The wrist tow method can be used when a conscious victim is able to maintain buoyancy.

1. Approach the victim while monitoring their position and progress.
2. Reassure the victim.
3. Adopt a defensive position at a safe distance.
4. Explain to the victim how you will proceed with the rescue.
5. Instruct the victim to float on their back with one arm extended straight towards you.
6. Grip the victim's extended arm at the back of the hand/wrist and use a sidestroke.
7. Ask the victim to grip your arm the same way.
8. Ask the victim to assist by kicking.





<https://www.youtube.com/embed/hbmb0oEjmrk?rel=0>

## Tube rescues

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The rescue tube is a widely used, cost-effective piece of rescue equipment.

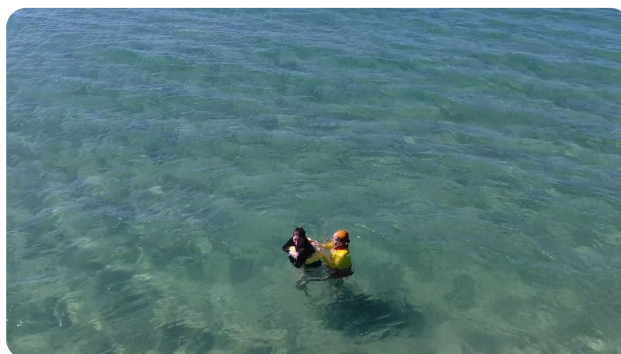
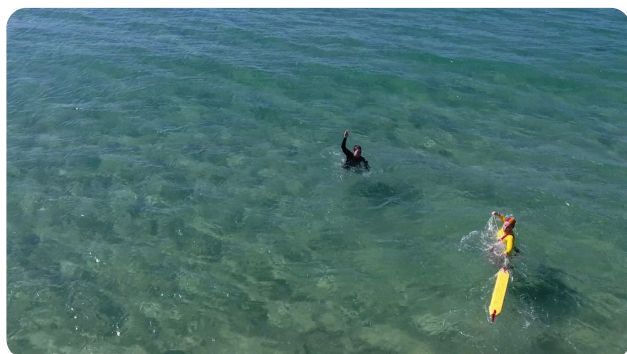
Swim fins ('flippers') should be used for tube rescues as they greatly increase the speed and efficiency of a tube rescue<sup>[20]</sup>.

## Entering the water

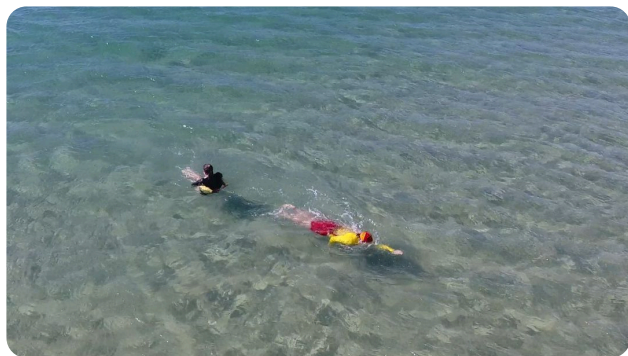


1. Pull the end of the belt and allow the rescue tube to unwind.
2. Place the belt over your head and under one arm, like a sash.
3. Hold the tube under your arm (or in one hand) with your swim fins in the other while running on the sand towards the water.
4. Throw the tube to the side when at the water's edge.
5. Commence wading through the surf.
6. Put swim fins on when reaching waist-deep water.
7. Monitor the victim's position and progress while swimming by raising your head every few strokes.

## Conscious victim





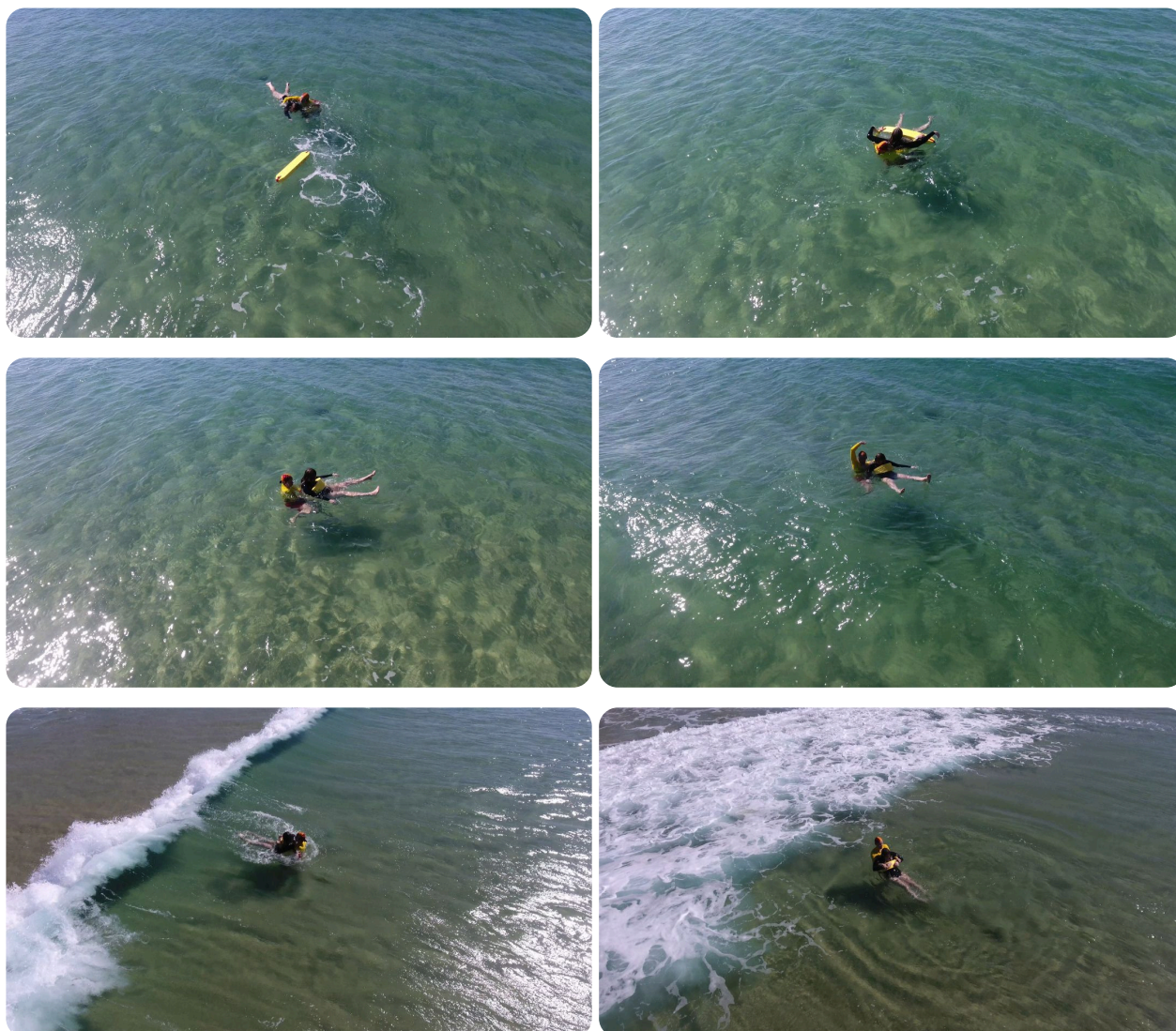


1. Stop at a safe distance from the victim.
2. Reach back for the rescue tube and push it towards the victim.
3. Reassure the victim and encourage them to remain calm and follow instructions.
4. Ask the victim to put their arms over the tube and hold it to their chest.
5. Clip the rescue tube securely around the victim under both arms while continuing to reassure the victim.
6. Determine whether you can return to shore safely with the victim:
  - safe—instruct the victim to lie on their back and kick their legs if possible
  - unsafe—reassure the victim and signal 'assistance required' or move to a safer position to wait for further assistance.



[https://www.youtube.com/embed/mRQ6Z\\_RumoQ?rel=0](https://www.youtube.com/embed/mRQ6Z_RumoQ?rel=0)

## Unconscious victim



1. Determine if the victim is unresponsive as you approach the victim
2. Remove their face from the water by turning the victim onto their back.
3. Clip the tube under both arms and around the victim's chest.
4. Determine whether you can return to shore safely with the victim:
  - safe—swim to shore while towing the victim. Turn every few strokes to check that the victim remains upright with their face out of the water
  - unsafe—signal 'assistance required' or move to a safer position to wait for further assistance.

**Note:** In some surf conditions you may need to sidestroke while holding the victim to maintain control.





<https://www.youtube.com/embed/JtiEnznwxHI?rel=0>

## Moving back through break zone

1. Turn every few strokes to watch behind you for breaking waves as you tow the victim to shore.
2. Pull the victim towards you when a wave approaches and place yourself between the victim and the wave:
  - large wave – reassure the victim and ask them to take a deep breath
  - small wave – lift the victim over the wave if the wave is small enough and you are on a sandbar.
3. Help your victim stand and stabilise them in a standing position once in shallow water and as you both move towards the shore.
4. Carry the victim to the shoreline using the most appropriate carry and support technique outlined in this manual.
5. Assess the victim's condition once at the shoreline and treat as required (see *Primary assessment*—DRSABCD).

### Note:

- If the victim is weak or unconscious and you can stand, place your arms under their armpits and lift them into a standing position. Stabilise them and signal 'assistance required' to carry them to the shoreline.

- If you lose contact with the victim, regain control and continue to shore. Consider signalling 'assistance required' again.
- You may need to place your hand over the victim's mouth and nose and hold on to them when a large wave approaches. If using this method, ensure your arm is fed under their armpit first and then place your hand over their mouth. This method is done to refer any impact from the wave to their armpit, not their neck.
- Where there is a 'shore break', you may need to reassure your victim and wait for a lull before proceeding.

## Double tube tow



A second lifesaver, equipped with a rescue tube and swim fins, can assist in returning a victim to shore using a double tube tow. This is very effective for heavy victims or in difficult surf conditions such as strong winds, choppy surf or strong currents. Great care must be exercised in the surf zone due to the risk of the ropes becoming tangled.

1. Lifesaver 1 clips their rescue tube under both arms and around the victim's chest.
2. Lifesaver 2 clips the end of their secondary rescue tube onto the ring of the tube already around the victim.
3. Both lifesavers tow the victim to shore while swimming about 1 m apart. Lifesaver 2 will be about a body length in front and to the side of Lifesaver 1.
4. Both lifesavers wait for a lull to start swimming safely towards the shore.
5. Lifesaver 1 keeps watch on the victim and the surf when in the surf zone.

**Note:**

- If a large wave approaches, Lifesaver 1 should secure the victim while Lifesaver 2 moves to the side. This minimises the chances of getting entangled in the ropes.
- If either lifesaver feels it is not safe to proceed through the surf zone together, Lifesaver 2 will unclip their tube and swim freely alongside Lifesaver 1 and the victim.
- Both lifesavers need to swim at the same pace.





<https://www.youtube.com/embed/zjpxr0TqYwI?rel=0>

## Board rescues

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The use of rescue boards to rescue people from the surf and a wide range of aquatic environments has become widespread around the world. The rescue board provides a fast and reliable means of reaching victims and, if required, can support multiple victims in the water.

### **Approaching the victim**

Paddle out towards the victim following the victim approach guidelines in this module and communicate reassurance as soon as possible. Approach the victim from the side with enough room to turn so that you arrive directly adjacent to the victim.

Where appropriate in relation to surf conditions, ensure the board is facing in the direction you want to paddle before you assist the victim onto the board.



## Conscious victim

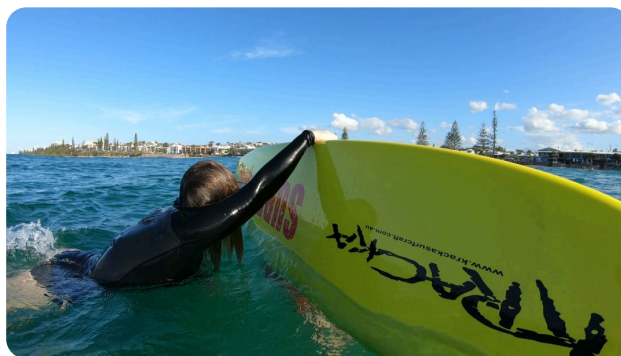


1. Place the rescue board between you and the victim as you approach the victim. Remember to manage your balance on the board, as victims are likely to reach out and grab it.
2. Provide reassurance to calm down a distressed victim who may also fear the rescue board, as they are unfamiliar with it. This can be done by exchanging names, reminding them to breathe normally, providing calm instructions:
  - beyond the surf zone—take your time and calmly explain how you want to proceed
  - within the surf zone—act quickly and explain to the victim how you want them to move onto and lie on the board.
3. Straddle the craft in a seated position slightly towards the tail. Remember you need to ensure that you position yourself and the victim so the total weight is evenly distributed on the board.
4. Ask the victim to reach across and take hold of the straps furthest away from them (on the other side of the board).
5. Direct the victim to pull themselves onto the board and swing their legs onto the deck so that they face the nose of the board.
6. Adjust your position by leaning forward to keep the board balanced while the victim is climbing on, and assist them if required by grasping their nearest leg and pulling them onto the board.
7. Determine whether you can return to shore safely with the victim:
  - safe—paddle to shore with the victim (see *Paddling to shore with a victim on a board*)
  - unsafe—reassure the victim and signal 'assistance required' or move to a safer position to wait for further assistance.



<https://www.youtube.com/embed/3WUfY061BHU?rel=0>

### Heavy, exhausted or unconscious victim beyond the break







1. Determine if the victim is unresponsive as you approach them.
2. Approach the victim from the side.
3. Turn your board so that it is parallel to the shoreline with the victim on the seaward side.
4. Take hold of the victim's arm or hand.
5. Turn sideways on your board and slide off into the water on the side opposite the victim. Maintain a tight grip on the victim.
6. Position the victim so that they are facing you and the board. The victim should be closer to the front of the board.
7. Hold the victim's hand firmly against the rail of the board closest to you as you roll the board upside down and away from the victim—the victim's arm is pulled across the underside of the board and their armpit should be firmly held against the victim's side of the board.
8. Position the victim so that their armpit closest to the nose of the board generally aligns with the 'S' of 'Surf' (of 'Surf Rescue') on the underside of the SLS rescue board.
9. Reach over and grasp the board strap or rail on the victim's side while keeping your grip on the victim's arm or hand.
10. Roll the board right side up so that the victim is lying across the deck (See note below for heavy victims).
11. Pull yourself back onto the board while keeping hold of the victim.
12. Position yourself towards the tail.
13. Pull the victim's legs onto the board.
14. Trim the board by:
  - lying in the prone paddling position behind the victim with your chest in contact with the

victim's body

- pulling the victim's legs to adjust their position if they are too far forward.

15. Determine whether you can return to shore safely with the victim:

- safe—signal 'assistance required' and paddle to shore with the heavy, exhausted or unconscious victim (see *Paddling to shore with a victim on a board*)
- unsafe—signal 'assistance required' or move to a safer position to wait for further assistance. Reassure the victim if they become conscious.



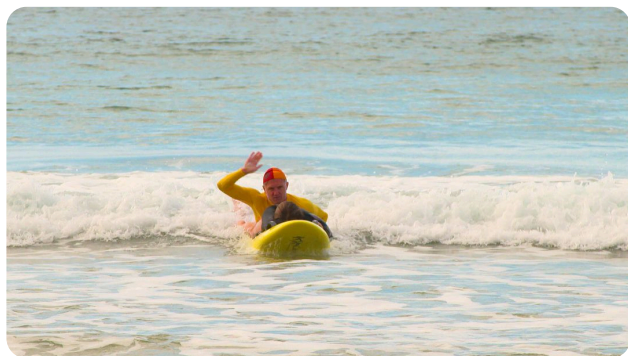
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**Note:**

- If the victim is heavier than you can safely lift, signal for assistance to return the victim to shore as fast as possible.
- Remember to reassure and communicate the rescue process with any conscious victim.
- When rolling the board right side up with a heavy victim, take a kneeling position on the underside of the board and reach for the straps on the victim's side with your free hand. This allows you to roll the board using your weight as well as your strength.



## Board rescues in the break zone



1. Determine if the victim is unresponsive as you cautiously approach the victim.
2. Keep the board on the shoreward side of the victim as you approach them.
3. Position the victim so that the nose of the board is lifted above the water when you are both aboard.
4. Trim the board by lying in the prone paddling position behind the victim with your chest in contact with the victim's body.
5. Determine whether you can return to shore safely with the victim:
  - safe—signal 'assistance required' and paddle to shore with the unconscious, exhausted or heavy victim (see *Paddling to shore with a victim on a board*).
  - unsafe—signal for assistance or move to a safer position to wait for further assistance. Reassure the victim if they are conscious.

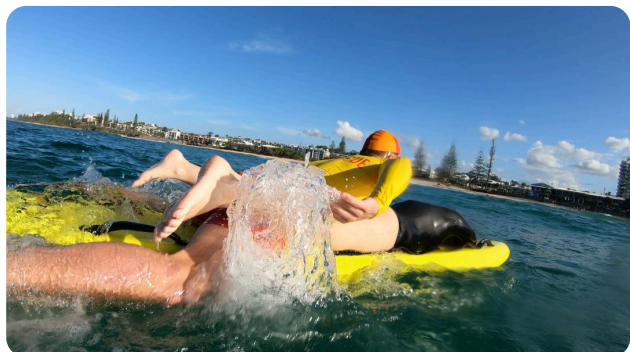


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**Note:**

- If the victim is conscious, tell them to grip the straps and be prepared to move back.
- If you are going to be hit by a wave, place your arms under the victim's armpits and grab the strapping. This will pin the victim to the board.
- Only experienced lifesavers should risk catching waves before they break.
- If you are unable to get the victim onto the board, position yourself and the victim on the seaward side of the board before hooking your arms underneath the victim's arms and grabbing the straps. This is a useful technique when in a break zone and there is insufficient time to safely get the victim onto the board.

## **Paddling to shore with a victim on a board**





Rescue boards have sufficient flotation to carry two adults—a lifesaver and a victim. However, the extra weight of a second person significantly changes how the board performs. Always practise paddling your board with a victim in calm water before attempting to paddle a victim in surf conditions.

### **When you have a victim on a rescue board:**

- check that the victim is positioned correctly on the board to provide good board trim (see *Positioning the victim*)
- have both yourself and the victim lying in the prone paddling position
- lie behind the victim with your chest in contact with the victim's body
- trim the board so that your combined weight is evenly distributed
- communicate what the victim can expect to experience when returning to shore, e.g., changing your position by pushing or pulling their legs to redistribute your weight and avoid nosedives
- communicate how the victim can assist you returning to shore safely
- try to stay in time with the victim's paddling
- remember to signal 'assistance required' if required, e.g., an IRB to assist you, another lifesaver to assist you when there are strong waves in a 'shore break'.

### **Positioning the victim**

- A board will tend to nosedive in the break zone or white water if the victim positions themselves too far forward.
- After communicating to the victim the need to move towards the back of the board, you can assist them by pulling their legs to move them backwards.
- Your legs should be in the water acting as an anchor if the victim is too far to the rear of the board. In this case, you will need to ask them to move forward using the straps.

#### **Note:**

- Excess weight at the front of the board will make it unstable in the white water and increase the risk of nosediving.
- Too much weight at the back of the board will slow your forward momentum.

### **When returning to shore through a break zone:**

- assess the surf conditions and safest timing to start paddling to shore

- wait for a lull in the wave pattern to paddle and remember there is no rush if the victim is conscious
- move yourself and the victim further back on the board
- catch a broken wave to quickly return to shore
- continue to assess the surf conditions ahead as you approach the shore
- provide instructions and ask the victim for details while paddling to both reassure the victim and ensure a safer return to shore
- instruct the victim to slide off towards the side of the board when in waist deep water and the surf conditions in the shore break will not injure them, or assistance arrives
- assist the victim out of the water appropriately, ensuring that the rescue board does not cause injury to yourself, the victim or others
- assess the victim's condition once at the shoreline and treat as required (see [Primary assessment – DRSABCD](#)).

**Note:**

- If the victim is unable to stand, slide off the rescue board when the water is waist deep, ensuring one arm remains over the victim to stabilise them on the board. Then carry the victim from the water using a [two-person carry](#) when assistance arrives.
- You may use the rescue board as a carrying device to extract the victim from danger if an appropriate number of people are available to safely assist. (See [Manual handling](#)). Do not try this with soft-top rescue boards as they may become damaged if the victim is too heavy.
- Remember – only risk catching an unbroken wave if you have great experience. Catching unbroken waves increases the risk of both the victim and lifesaver falling off the board and a rogue board rolling through the waves. The consequences of these risks are further injury and harm to the victim, lifesaver and other beachgoers.
- Quickly grab the victim's legs and pull them backwards on the board if required to avoid a nosedive when catching a wave.
- Stop and signal for assistance again if there are strong waves in the shore break. It may be safer to slide off one side of the board and hold your victim on the board until assistance arrives.



# Mass rescues



Mass rescues occur when multiple people require help at the same time and at the same location.

Examples of mass rescues include:

- a boat overturning
- a large surging wave washing up the face of a sloping beach or over a rock platform and dragging people out to sea
- a rip current dragging a group of swimmers into deeper water
- swimmers suddenly washed off a sandbank and into deep water
- two jet skis colliding.

For mass rescues, always assess:

- how close the victims are to each other
- the priority of the victims—assist an unconscious victim first
- what and how much rescue equipment and flotation devices are available.

Mass rescue situations may occur quickly and without warning.

If a mass rescue is beyond the capacity of the lifesaving service, follow the steps below.

1. Use the radio to call 'Rescue Rescue Rescue'. Provide information using the '4 Ps'.
2. Sound the mass rescue alarm—three blasts of the alarm or siren.
3. Your SLS communication centre should be notified immediately with a request for assistance.

4. All available lifesavers and support personnel with spare rescue equipment should report to the patrol team leader and follow instructions.
5. Fast-moving and manually operated equipment, such as boards, tubes with fins and powercraft resources should be sent to help victims in difficulty.
6. Other team members should control crowds on the beach and prepare an area where first aid or resuscitation can be performed.
7. Competent members of the public may help. For example, boardriders may paddle out to support victims awaiting rescue.



### Multiple victims with a rescue tube

1. Quickly assess the victims as you approach them.
2. Adopt a defensive position.
3. Reassure the victims and explain how you will proceed.
4. Secure the most vulnerable victim with a rescue tube.
5. Assist other victims to lock their arms inside the tube.
6. Signal 'assistance required'.
7. Monitor and reassure the victims.

### Multiple victims with a rescue board

Rescue boards have a large buoyancy factor and are very good for supporting victims in a mass rescue incident. You should:

- quickly assess the victims

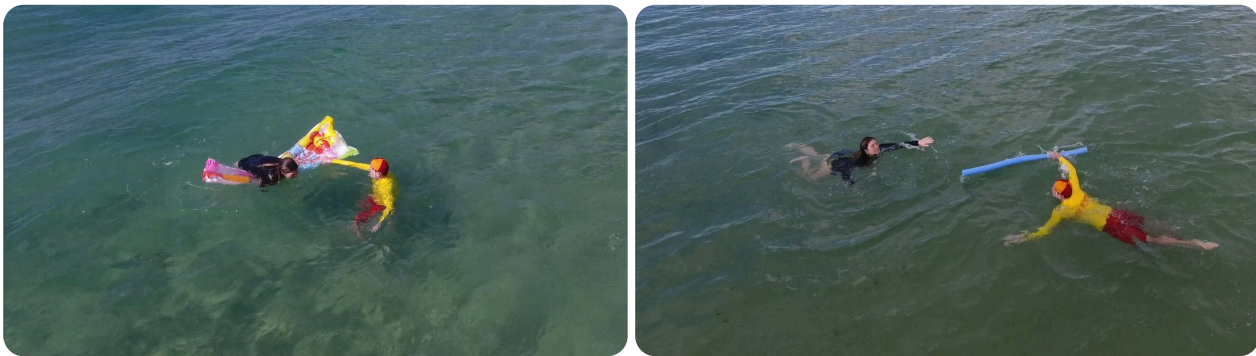
- manoeuvre the rescue board to the most vulnerable victim
- roll them onto the board if they are or become unconscious and encourage all other conscious victims to swim to the board
- instruct the victims to remain in the water and grasp the board straps
- encourage victims to adopt the buddy procedure and alert you to any issue
- signal 'assistance required'
- monitor and reassure the victims.

**Note:** If you are in the break zone with multiple victims, encourage all victims to hold on to the seaward side of the board as tightly as possible and allow the waves to wash you back to shore. You may have to secure the most vulnerable victim.

## Using other flotation resources

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Providing buoyancy to a distressed victim is the key to preventing panic and any irrational actions that may endanger you.



If you do not have access to a rescue tube or rescue board, always try to offer the victim something that floats, e.g., life jacket, a life buoy, a surfboard, stand-up paddle board, kayak, bodyboard. Even the lid of an esky or a ball will help.

Providing flotation to a distressed, struggling victim interrupts the drowning process. Victims rarely drown if provided with flotation. This may remove the urgency of immediate rescue and allow you more time to plan and effect the rescue.



<https://www.youtube.com/embed/h5R8Ew-Tfak?rel=0>

## Victim handling techniques

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The transport and movement of an injured or incapacitated victim requires skill and care. The coastal and aquatic environment presents some unique challenges. Inshore areas can be treacherous, and beaches can be difficult places for vehicles and manual handling techniques.

Where urgency is not required, there is usually time to develop a team approach and to select a method of movement that is appropriate for your safety and that of the victim. Use of bystanders should be considered when trained lifesavers or first responders are not available.

Before moving a victim, you should consider:

- equipment available
- location—how far you must move them and over what terrain
- safe manual handling techniques (see *Manual handling*)
- the victim's injury and condition
- urgency.

Your safety is most important when lifting or moving any rescue victim. Seek assistance from other lifesavers or bystanders if you do not have the strength or body size to manoeuvre a victim safely. Remember to follow the steps on 'how to lift' outlined in the *Safety and Wellbeing* module of this manual



as well as those relating to victim handling below.

When lifting or lowering a victim as a team, everyone should move at the same time on an agreed count, e.g., a team leader counts 'three, two, one, lift' or 'three, two, one, lower'.



## Two-person carries and drags

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There are several types of two-person carries. The type to use depends on the condition and location of the victim. Always communicate what to expect and gain consent from conscious victims.

## Two-person carry ('trunk and legs')

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This carry should be used when an exhausted or unconscious victim requires:

- removal from the shallows or the water's edge
- removal from danger on the beach or other land location.

***Lifesaver 1:***

1. Gain consent from the victim to move them if they are conscious.
2. Slide both arms under both of the victim's armpits from behind them.
3. Support the victim against your chest.

***Lifesaver 2:***

4. Lift the victim's legs under the knees and thighs, using your legs and not your back to lift.
5. Carry both victim's legs to one side (usually on your hip). Make sure you support the victim at your elbow line and not with your wrists.

***Both lifesavers:***

6. Carry the victim to a safe location while walking at a similar pace. Coordinate any turn so that Lifesaver 2 is facing in the direction of travel.
7. Lower the victim at the same time to a supported sitting position (if conscious) or on their back (if unconscious) for victim assessment. Keep your back straight and vertical while lowering the victim.
8. Assess the victim's condition and treat as required (see *Primary assessment—DRSABCD*)



<https://www.youtube.com/embed/YIfmYI31brs?rel=0>

**Note:** When performing a two-person carry, it is best practice to use one hand to maintain a pistol grip on the victim's jawline. However, for heavier victims this may be a manual handling risk—you should maintain your own safety first.



# IRB variation of two-person carry



## *Both lifesavers:*

1. Wait at the water's edge to steady the IRB against any oncoming waves and receive the victim.

## *IRB crew:*

2. The IRB driver and IRB crewperson should lift the victim onto the pontoon.

## *Lifesaver 1:*

3. Slide both arms under both of the victim's armpits and lift the victim off the pontoon. Make sure you support the victim at your elbow line and not with your wrists.

## *Lifesaver 2:*

4. Immediately lift the victim's legs under the knees and thighs, carrying both legs to one side (usually on your hip).

## *Both lifesavers:*

5. Carry the victim away from the IRB to a safe location while walking at a similar pace. Coordinate any turn so that Lifesaver 2 is facing in the direction of travel.
6. Lower the victim at the same time to a supported sitting position (if conscious) or on their back (if unconscious) for victim assessment. Keep your back straight and vertical while lowering the victim.



7. Assess the victim's condition and treat as required (see *Primary assessment—DRSABCD*).



<https://www.youtube.com/embed/VsTuFALzBBY?rel=0>

**Note:**

- Sudden movement of an IRB from wave action is a major hazard. You should remain vigilant and follow the instructions of the IRB driver and crewperson.
- If the IRB is likely to be affected by the shore break, and there are enough lifesavers and bystanders present, the IRB driver may request that the IRB is dragged further up the beach to a safe position. Ideally, the IRB crewperson will remain in the IRB with the victim held securely.

# RWC variation of two-person carry



## *Both lifesavers:*

1. Wait at the water's edge to receive the victim.
2. Position yourself for the RWC to beach itself safely within the designated powercraft area.
3. Move safely towards the seaward side of the sled after the RWC has beached.

## *Lifesaver 1:*

4. Slide both arms under both of the victim's armpits and roll the victim off the sled. Make sure you support the victim at your elbow line and not with your wrists.

## *Lifesaver 2:*

5. Immediately lift the victim's legs under the knees and thighs, carrying both legs to one side (usually on your hip).

## *Both lifesavers:*

6. Carry the victim away from the RWC to a safe location while walking at a similar pace. Coordinate any turn so that Lifesaver 2 is facing in the direction of travel.
7. Lower the victim at the same time to a supported sitting position (if conscious) or on their back (if unconscious) for victim assessment. Keep your back straight and vertical while lowering the victim.

8. Assess the victim's condition and treat as required (see *Primary assessment—DRSABCD*).



<https://www.youtube.com/embed/A23F-TdLJ7k?rel=0>

## Two-handed seat carry

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This carry is used for a conscious victim who has provided their consent to be moved to safety.







***Both lifesavers:***

1. Stand facing each other, on opposite sides of the victim.
2. Bend their knees and place one arm each around the victim's waist.
3. Place free arms under the victim's thighs and grasp the other lifesaver's forearm (close to the elbow if possible).
4. Advise the victim to place their arms around both lifesavers' shoulders.
5. Stand up straight at the same time, thus creating a chair.
6. Move the victim to a safe area while walking at a similar pace.



[https://www.youtube.com/embed/Hwm9VZhWj\\_M?rel=0](https://www.youtube.com/embed/Hwm9VZhWj_M?rel=0)



# Two-person drag

This drag may be used for the urgent removal of a victim from the water. It is a useful technique for a victim stung by dangerous marine stingers, particularly if tentacles may still be present. It may also be used if a victim is too heavy for the lifesavers to lift.

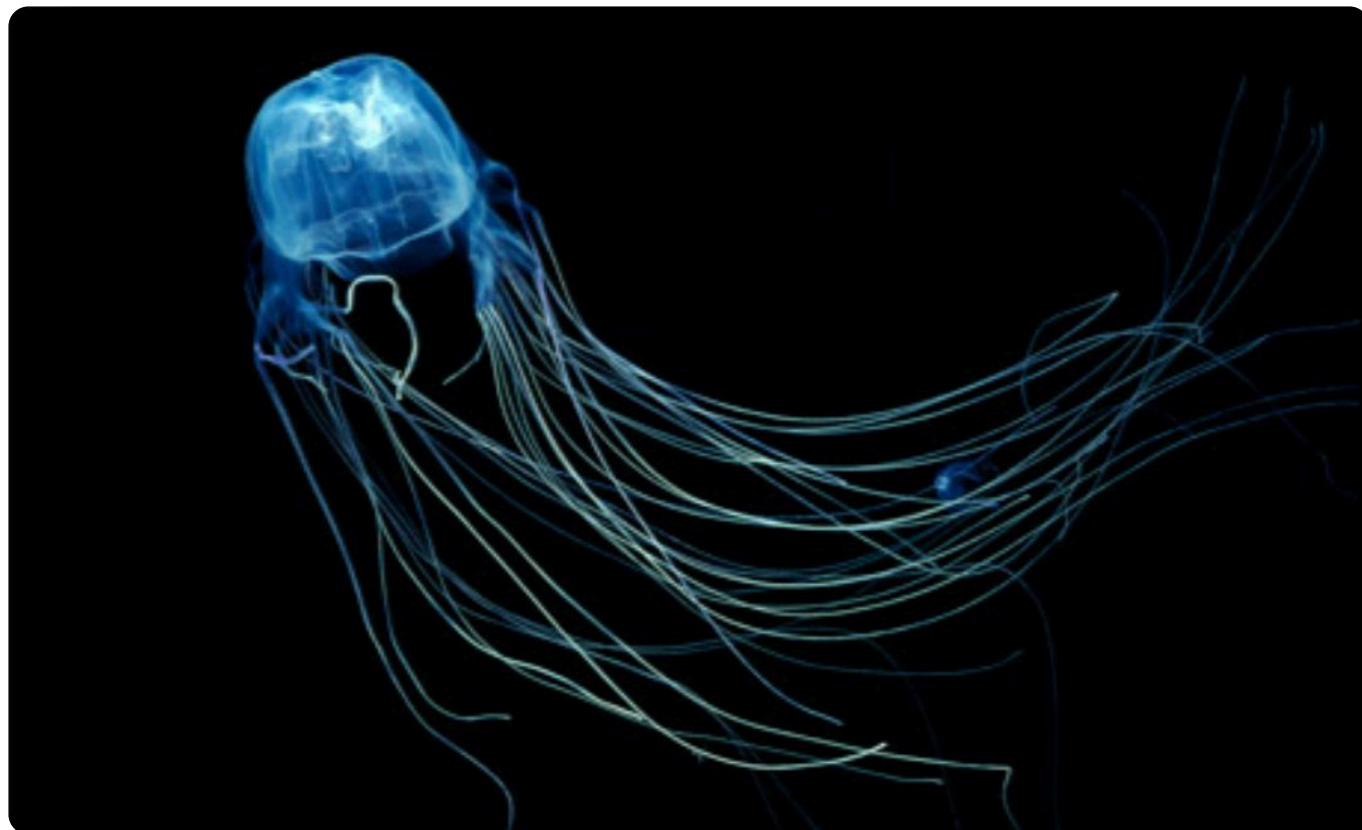


## *Both lifesavers:*

1. Gain the victim's consent to drag them.
2. Check that the victim does not have an arm or shoulder injury and put on PPE if necessary.
3. Hold the victim by the wrist and the inside of the upper arm above the elbow.
4. Drag the victim to a safe area while walking at a similar pace
5. Lower the victim at the same time to a supported sitting position (if conscious) or on their back (if unconscious) for victim assessment. Keep your back straight and vertical while lowering the victim.
6. Assess the victim's condition and treat as required (See *Primary assessment—DRSABCD*).

## **Note:**

- The severe pain of a box jellyfish sting may cause sudden physical movements, even convulsions. Treatment of marine envenomation is covered in your first aid training.



## Post-rescue operations

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Post-operational procedures need to be completed as per your local SOPs. This includes providing further care to the victim and completing appropriate reports, attending team debriefing sessions as required and returning to a 'rescue ready' status.

## Team debriefing and reporting

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Following a rescue, it is important that you and your team members start mental health conversations and review your patrol team's rescue response.

Your patrol captain will apply the principles of psychological first aid, help you fill out the appropriate reports, and remind you of your mental health training (see *Mental health*).

You should also expect to participate in an operational debrief led by a duty officer following any critical incident on patrol. Refer to the *Safety and Wellbeing* module of this manual for more information about critical incidents on patrol and operational debriefs.

**Note:** Be aware of the signs and symptoms of critical incident stress, how to manage critical incident stress and your local SOPs for accessing mental health support services. You can also visit a local mental health professional at any time if you are feeling depressed, stressed or anxious.

# Equipment cleaning and maintenance

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Patrol equipment used in rescues must be restored to maintain rescue readiness. Make sure all equipment used in rescue operations is recovered, cleaned and maintained as per manufacturer instructions and to organisation standards. For example, ensure that you are following your surf lifesaving club's SOPs safety and hygiene precautions when cleaning. Refer to any chemical's Safety Data Sheets (SDS) or warning instructions and advise the appropriate club personnel when any chemicals expire or need replacing.

Any broken rescue equipment will require:

- an identification tag, or other similar identifier, attached to ensure it is not accidentally used on patrol
- removal from usage until repaired or replaced
- your surf lifesaving club's gear steward to be notified
- you to follow your surf lifesaving club or service's maintenance and hazard reporting processes for equipment requiring repair or replacement.

## Module 5 – Reflection questions

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You are now ready to attempt the eLearning component of your course for this module. You can access the eLearning through the [SLS Members Area](#).

You should also test your knowledge by reading through the following reflection questions. If you find yourself answering 'no' or 'not sure' to any of them, you may wish to speak with your trainer for clarification.

1. Are you aware of the range of [scanning techniques](#)?
2. Could you recognise the [difference between a distressed victim and a drowning victim](#)?
3. Are you confident in your knowledge of Surf Life Saving's [water safety signals](#)?
4. Do you know what [considerations should be made before performing a rescue](#)?
5. Do you understand the advantages and disadvantages of [different rescue techniques](#) using rescue tubes and boards as well as unaided rescues?
6. Are you confident in your ability to correctly use [rescue tubes](#) and [rescue boards](#)?
7. Do you understand the different [carries/drag](#)s that can be used to move a victim to a safe location?

# Module 6 – Resuscitation

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- [Safety first](#)
- [Anatomy considerations that can affect CPR](#)
- [Best practice guidelines](#)
- [Primary victim assessment—DRSABCD](#)
- [Management of the victim after CPR](#)
- [Module 6 – Reflection Questions](#)

## Safety first

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As a lifesaver, you are trained to provide resuscitation and first aid, and you must take all the appropriate precautions against communicable and infectious diseases. This is to prevent the spread of hazardous microorganisms between lifesavers and victims as well as between other SLS members.

Many communicable and infectious diseases are preventable through immunisation and can be managed by taking both universal and transmission-based precautions. Examples of precautions include:

- the use of personal protective equipment (PPE) such as single-use resuscitation masks, eyewear, clothing and gloves
- washing your hands with warm soapy water or hand sanitiser after contact with a victim or body fluids
- safe use of sharps containers to dispose of used needles and syringes
- cough etiquette—cover mouth and nose when coughing or sneezing
- management of waste contaminated with body fluid
- immunisation against infectious diseases, e.g., hepatitis and tetanus.



# Prevention of cross-infection during CPR



Several disorders are known to have been communicated during mouth-to-mouth resuscitation, as the mouth, saliva, exhaled air and blood are common sources of transmissible viruses and bacteria.

## Rules for low-risk CPR

### ✓ DO

- Using mouth-to-mask resuscitation is recommended.
- Always wear gloves.
- Always wash your hands after resuscitation.
- Avoid contact with the victim's blood or body fluids, if possible.

Blood or other body fluids from the victim may contaminate your clothing or other first aid equipment used during cardiopulmonary resuscitation (CPR). Items that are soiled or single-use should be placed in a leakproof heavy-duty plastic bag and disposed of as per your local standard operating procedures (SOPs).

If any body fluid from the victim splashes into your eye, gently rinse your exposed eye with water and seek medical advice. If blood or body fluid splashes into your mouth during CPR, thoroughly rinse your mouth out with water and also seek medical advice.

## Needlesticks



You may encounter hazardous sharps ('needlesticks') when presented with an unconscious victim. Be sure to wear gloves when handling them with care and dispose of them safely using a sharps container as per your local SOPs.

All needlestick injuries carry a risk of infection.

To treat a needlestick injury on a victim, wash the broken skin area with warm soapy water and advise the victim to go to the hospital or visit a medical professional. You may also recommend mental health support services. Remember to complete an incident report form. You can find out more about Incident Reporting on the [SurfGuard User Guide](#).

# Prevention of cross-infection during CPR training



Your trainer should brief you on the problems of cross-infection before you commence any manikin training.

Although the risk of disease transmission during CPR training is extremely low, care should always be taken. SLSA recommends following the [ARC Guideline 10.3 – Cross Infection Risks and Manikin Disinfection](#) to minimise the risks of infection during CPR training.

## Rules for low-risk CPR training

During training:

### ✓ DO

- Keep clean, contaminated and sterile items separate.
- Use your own manikin mask and bag.
- Recognise when you have not followed standard infection control procedures.
- Wash your hands with warm soapy water before, during and after training sessions.

**After training:****✓ DO**

- Keep clean, contaminated and sterile items separate.
- Disassemble the manikin as recommended by the manufacturer.
- Wash and scrub all accessible parts of the manikin with warm water and detergent. This includes face pieces.
- Rinse the washed parts with fresh running water.
- Soak the accessible manikin parts and oxygen masks in a disinfecting agent such as 10 per cent bleach or 70 per cent alcoholic chlorhexidine for at least 2 minutes. Rinse again to ensure that all bleach/disinfectant solution has been removed.
- Inspect the training equipment for cracks and tears to make thorough cleaning possible.
- Replace any cracked or torn parts.

Anyone who is a carrier of any infectious disease, such as hepatitis or HIV, should seek advice before commencing resuscitation training.

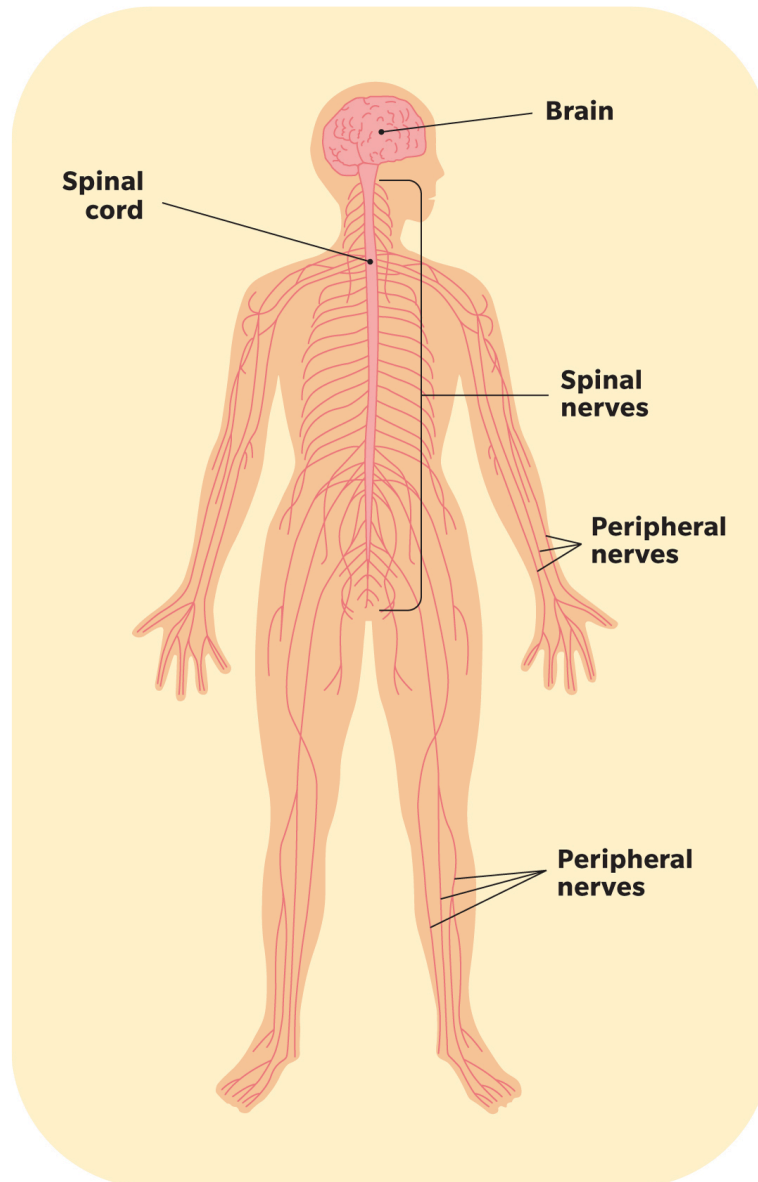
Other important safety considerations related to CPR, such as manual handling, are referenced throughout this module.

## **Anatomy considerations that can affect CPR**

Every lifesaver needs a basic understanding of the systems of the human body, to support common lifesaving practices such as resuscitation. These systems are the nervous system, circulatory system and respiratory system.

## **The nervous system**





The brain, through the spinal cord and the nerves, controls every part of the body. In particular, the brain sends messages that control the heartbeat, the movement of the muscles of breathing and all other body functions. Brain cells require a continuous supply of oxygen in order to function, and they are irreversibly damaged if starved of oxygen for more than a few minutes.

### **Central nervous system**

The brain and spinal cord comprise the central nervous system. Messages from the brain are relayed throughout the body via the spinal cord and a complex network of nerve pathways that extends throughout the entire body.

### **Peripheral nervous system**

The peripheral nervous system comprises all the nerves, ganglia (clusters of nerve cell bodies) and sensory receptors outside the central nervous system. It relays impulses from the central nervous system to voluntary muscles (skeletal muscle), and to the autonomic nervous system. This provides the nerve supply to those parts of the body that are not controlled consciously, including the cardiac (heart) muscle and the smooth muscle around blood vessels and the glands of the body.

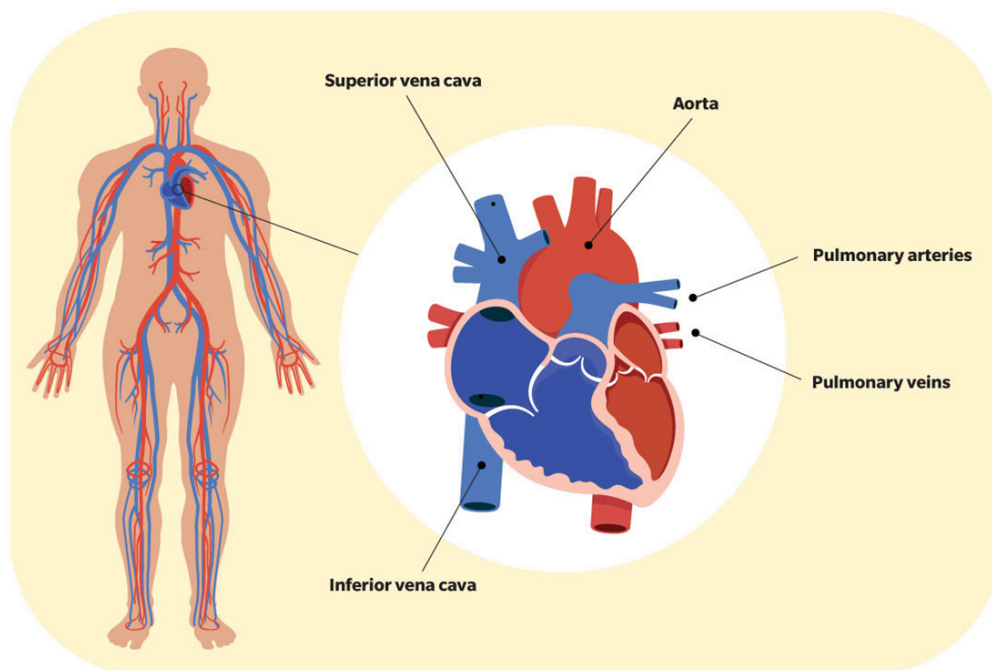
The peripheral nervous system also relays information back to the brain from the body including sensation, temperature and proprioception (the sense of where parts of the body are in relation to each other).

## The breathing control centre

The involuntary urge to breathe is regulated by an area of the brain called the breathing control centre, which is located in the brain stem, close to where the brain joins the spinal cord. To function properly, this control centre must have a good supply of oxygen. Lack of oxygen to the control centre may cause breathing to stop.

Should the airway become blocked for any reason, brain cells will begin to suffer damage due to lack of oxygen. This can rapidly lead to the death of the victim if the airway is not cleared.

# The circulatory system



The circulatory system moves blood around the body. The main components of this system are:

- **The heart**—a muscular pump that has four chambers and is about the size of its owner's clenched fist. There is a left and a right atrium, and a left and a right ventricle. The two atria pump blood into the two ventricles, which are larger and more powerful than the atria. The left ventricle is more powerful than the right ventricle, as it needs to pump blood all the way around the body.
- **Circulation of blood**—is caused by the mechanical action of the heart. The heart's right side pumps blood to the lungs, where oxygen is absorbed into the blood and carbon dioxide is released. Blood, rich with oxygen, is returned from the lungs to the left side of the heart. It is then pumped out of the heart via the aorta. The aorta then divides into many smaller arteries to supply blood and oxygen to organs, muscles and all other tissues.
- **Arteries**—carry blood from the heart at high pressure, so their walls are strong, muscular and elastic. The blood in the arteries is a bright red colour, due to its oxygen content; if an artery is cut,

blood spurts out at the rate of the heartbeat. Serious blood loss can occur quite rapidly from a cut artery, because of the high blood pressure. Arterial bleeding is serious and must be controlled as soon as possible.

- **Veins**—carry blood back to the right side of the heart from the organs and muscles of the body after oxygen has been used. The blood in veins is dark red and moves at low pressure, and it is kept flowing in one direction by one-way valves. Veins are thin-walled. Many are near the surface of the skin and are easily seen as blue lines on the feet, hands and forearms.
- **Capillaries**—the tiny vessels that link the ends of the smallest arteries with the smallest of the veins. Each artery divides into an enormous number of these tiny vessels, which form a network that is in close contact with the cells of the body. The capillaries allow oxygen and nutrients to reach every cell in the body, and carbon dioxide and other waste products to be removed.

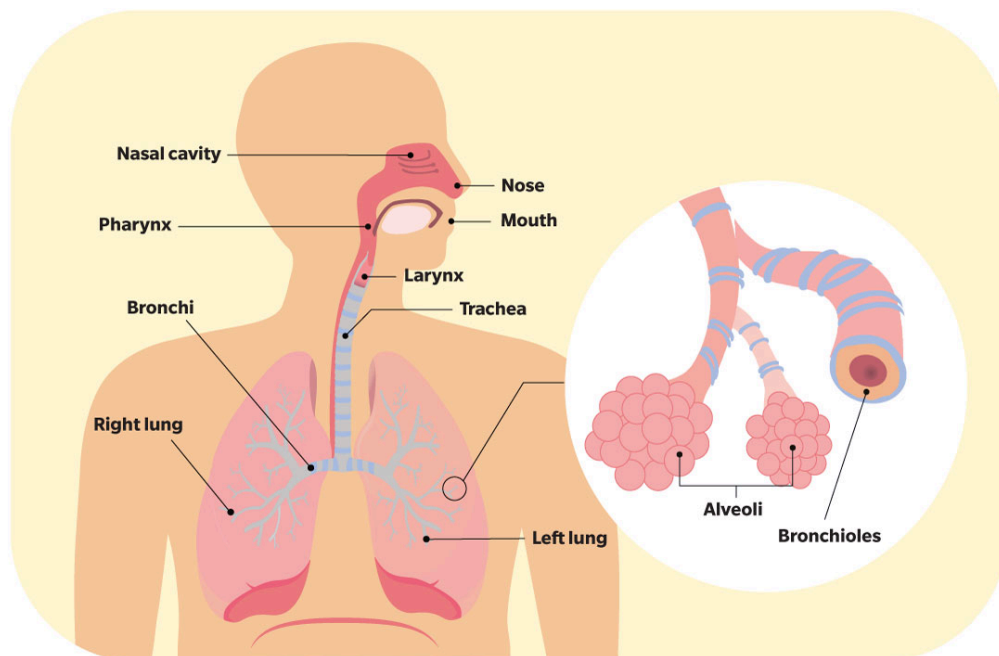
## First aid implications

With the exception of the fingernails, toenails and hair, injury to any part of the body will result in damage to blood vessels and, therefore, bleeding.

For all organs and parts of the body to receive adequate oxygen, they need lungs that are being ventilated to get oxygen into the blood, and a heart that is beating to pump the oxygenated blood around the body and supply all organs, especially the brain.

# The respiratory system

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The respiratory system supplies the body with a constant supply of oxygen. Knowledge and understanding of the respiratory system is necessary for effective resuscitation.

The respiratory system consists of upper and lower airways.

## Upper airways

The upper airways include the nostrils, nasal cavity, mouth, pharynx (throat) and larynx (voice box).

The throat is a common passageway for food and air. It starts from the cavity at the back of the mouth and nose then continues to the separate trachea and oesophagus.

The upper respiratory tract is the most common location for an airway obstruction.

## Lower airways

The lower airways include the trachea and lungs, which consist of bronchi, bronchioles and alveoli.

The trachea (windpipe), allows air to pass to and from the lungs. It is in the front of the throat and begins at the larynx and vocal cords, extending down to the lungs. The oesophagus is behind the trachea and carries food and liquids to the stomach (or back from the stomach to the throat during vomiting or regurgitation).

The trachea divides into two bronchi known as the left main bronchus and right main bronchus, which then divide into progressively smaller bronchioles and, finally, alveoli (air sacs), which are surrounded by capillaries.

The tubular trachea and bronchi are kept open by C-shaped rings of strong connective tissue (cartilage), making them semi-rigid tubes (rather like vacuum tubing used to clean out swimming pools). These rings hold the trachea and bronchi open, allowing airflow to and from the lungs.

The lungs are located on either side of the chest (thorax) and fill most of the chest cavity, which is separated from the abdomen by a large sheet of muscle known as the diaphragm.

## How do we breathe?

Breathing is the act of moving air into and out of the lungs.

Breathing in is called inhalation. It is an involuntary muscular action caused by contraction of the muscles to lift and expand the chest while the diaphragm is pulled down and flattened. This combined action increases the size of the chest cavity and draws air into the lungs.

Breathing out is called exhalation. Exhalation is caused when the muscles of the chest and the diaphragm relax. As the chest cavity becomes smaller, air is pushed out of the lungs.

The air we breathe in contains 21 per cent oxygen. Some oxygen in the air is absorbed by the lungs into the bloodstream and the air we breathe out contains 16 per cent oxygen.

# Best practice guidelines

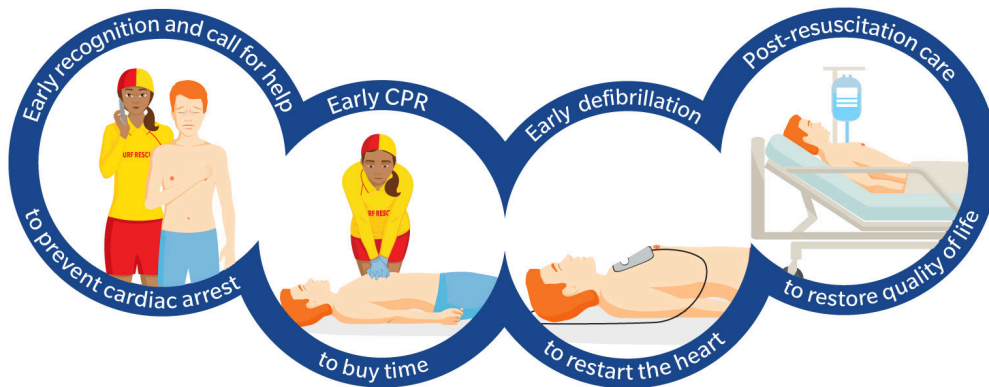
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- [Chain of survival](#)
- [The Australian Resuscitation Council](#)



# Chain of survival

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Successful resuscitation and best practice to give better survival rates is based on the principle of the 'chain of survival'. This comprises:

## Early recognition and call for help

Identify and access the victim. Contact emergency services as quickly as possible to prevent cardiac arrest.

## Early CPR

Commence CPR as soon as possible to buy time.

## Early defibrillation

Introduce a defibrillator as soon as possible to deliver a shock to return the heart to its normal rhythm if needed.

## Post-resuscitation care

Promote early access to advanced post-resuscitation care to restore quality of life, e.g., hospital.

# The Australian Resuscitation Council

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## AUSTRALIAN RESUSCITATION COUNCIL

The [Australian Resuscitation Council \(ARC\)](#) is a voluntary coordinating body that represents all major groups involved in the teaching and practice of resuscitation.

is a voluntary coordinating body that represents all major groups involved in the teaching and practice of resuscitation.

The ARC produces guidelines to meet its objectives in fostering uniformity and simplicity in resuscitation techniques and terminology. Guidelines are produced after consideration of all available scientific and published material and are issued only after acceptance by all member organisations. This does not imply, however, that methods other than those recommended are ineffective.

The *ARC Guideline 10.1—Basic Life Support (BLS) Training* states all those trained in CPR should refresh their CPR skills at least annually. All lifesavers should be familiar with ARC (and ANZCOR) guidelines and be able to access them readily.


The guidelines, procedures and scientific literature referred to in this section are derived from the [Australian Resuscitation Council \(ARC\) Guidelines](#).

## Primary victim assessment—DRSABCD







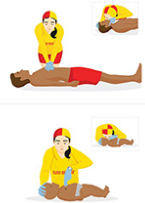


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The DRSABCD primary assessment procedure is a quick way for you to identify if a victim has any life-

threatening injuries or conditions and to deal with them in order of priority.



## Resuscitation Chart

<b>D</b>		<b>DANGER</b>	Check for and remove any dangers to <b>yourself, bystanders and the victim</b> .
<b>R</b>		<b>RESPONSE</b>	Check for a response by <b>talk and touch</b> .
<b>S</b>		<b>SEND</b> 	If unresponsive, send for help by <b>calling Triple Zero (000)</b> .
<b>A</b>		<b>AIRWAY</b>	Open airway and <b>ensure it is clear</b> . If not, roll victim onto their side and clear the airway.
<b>B</b>		<b>BREATHING</b>	<b>Look, listen and feel</b> for breathing. If victim not breathing or breathing is not normal, start CPR. If normal breathing returns, roll victim on to their side and monitor them.
<b>C</b>		<b>CPR (30:2)</b>	Start <b>CPR</b> . Perform <b>30 chest compressions</b> followed by <b>2 rescue breaths</b> . Continue chest compressions if unwilling or unable to perform rescue breaths. Perform compressions at the <b>centre</b> of the victim's chest, at a rate of <b>100-120 per minute</b> and to <b>1/3 the depth</b> of the victim's chest. Ensure adequate backward head tilt when performing rescue breaths for adults and children. For <b>infants</b> , apply no head tilt and use 2 fingers to compress the infant's chest.
<b>D</b>		<b>DEFIBRILLATION</b> 	Attach an Automated External Defibrillator ( <b>AED</b> ) as soon as it is available and <b>follow its prompts</b> .

**Continue CPR until:**

- Responsiveness or normal breathing returns.
- It is unsafe or impossible to continue (e.g., exhaustion).
- A health care professional arrives and takes over CPR.
- A health care professional advises to cease CPR.

To get involved or learn to save a life, visit **[sls.com.au](https://sls.com.au)**

This information is no substitute for CPR and first aid training. Surf Life Saving recommends that everyone learn CPR and first aid. June 2019.

**Note:** The Australian guidelines for resuscitation have minor differences for children and infants. An infant is a person newly born to 12 months old, and a child is aged between 12 months and 8 years old. You should also take into account variations in body size.

# Danger



Pause and plan your approach towards a potential victim to make sure that there is no danger to yourself or bystanders, or further danger to the victim. Remove any danger to the victim or those threatened if safe to do so. This will involve checking the area around the site of the incident and putting on gloves to protect yourself against cross-infection.





# Response



You should quickly assess the consciousness of a victim by talk and touch. You may follow the COWS acronym.

## COWS

- C** Can you hear me?
- O** Open your eyes?
- W** What's your name?
- S** Squeeze my hands if you can hear me.

### Note:

- The assessment of consciousness must be done quickly, so as not to delay CPR or first aid treatment if necessary.
- Infants respond more to touch—place one hand on an infant's forehead and use your other hand to gently squeeze their shoulder while talking loudly to them. The infant may respond by making a noise, moving or opening their eyes.

## The conscious victim



Conscious victims should be reassured and made comfortable, treated with respect, carefully assessed and managed according to their signs and symptoms. Remain calm and supportive as you talk them through how you intend to help and care for them while respecting their dignity.

Be sure to obtain their consent to provide (and document) first aid within the limits of your training. For victims under the age of 18, you need their parent's or guardian's consent, where possible.

Take into consideration if the victim is aged, infirm or has cultural values that may explain why they exercise their right not to be treated. Ask them simple questions and about how they feel to help reduce any anxiety. Continue to monitor their response. Encourage them to share the details of the incident or their illness if bystanders cannot.



**Note:**

- A victim, or their parent or guardian, may withdraw their consent for treatment at any time after you commence providing first aid or basic emergency care.
- Refer to the *SLSA General Code of Conduct* (in [SLSA Policy 6.05-Member Protection](#)) for guidance on how to treat both members and conscious victims with respect.

## The unconscious victim

If there is no response to questions or touch, the victim is deemed unresponsive and you may provide first aid treatment with their 'implied consent'.

The victim's airway and breathing now become the priority. A victim who shows only a minor response, such as groaning without opening their eyes, should be managed as if unconscious.

## Send for help

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Send for help through your patrol captain or SLS state communication centre using the 4 Ps, or by phoning triple zero (000). Request assistance and equipment from other patrol team members and/or bystanders. Also request that they report back to you to ensure emergency services have been called.

Prepare to stay with the victim until they have been handed over to another lifesaver or to the paramedics.





## Airway

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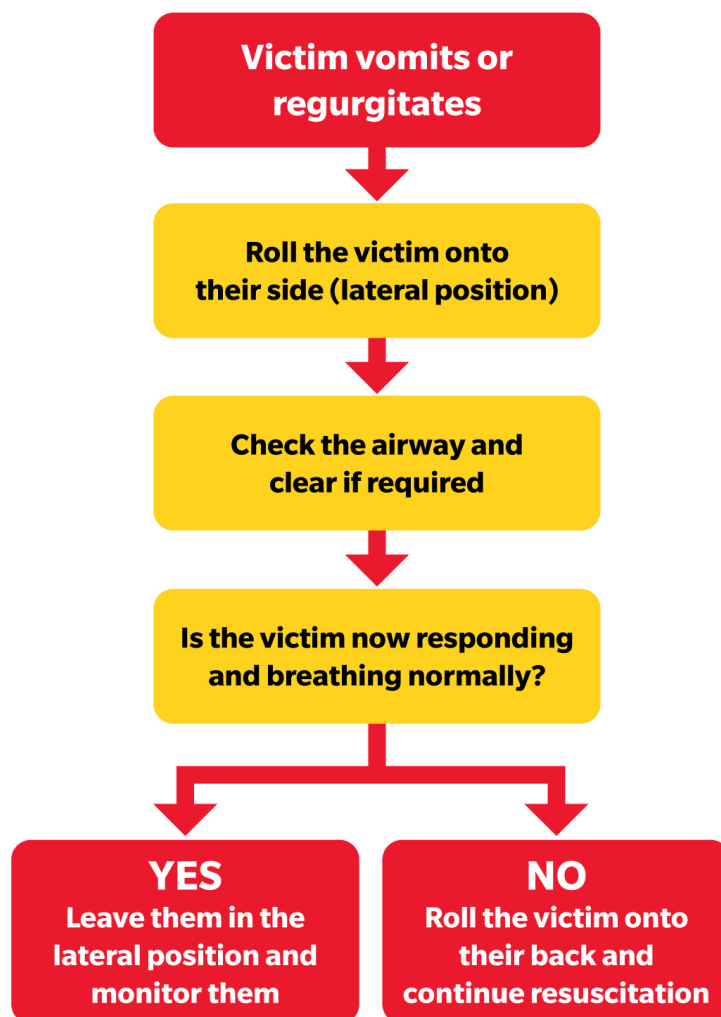
One of the keys to a successful resuscitation is a clear ('open') airway. This is achieved by applying backward head tilt and chin lift, and by clearing any visible foreign matter obstructing the unconscious victim's upper airway. Good observation of and access to the victim's airway must be achieved.

Care of the airway takes precedence over other injuries, including the possibility of spinal injury. The one exception to this guideline is the management of severe, life-threatening bleeding, which takes precedence over airway management. Once life-threatening bleeding has been managed, assess the airway. Refer to your first aid training on bleeding.

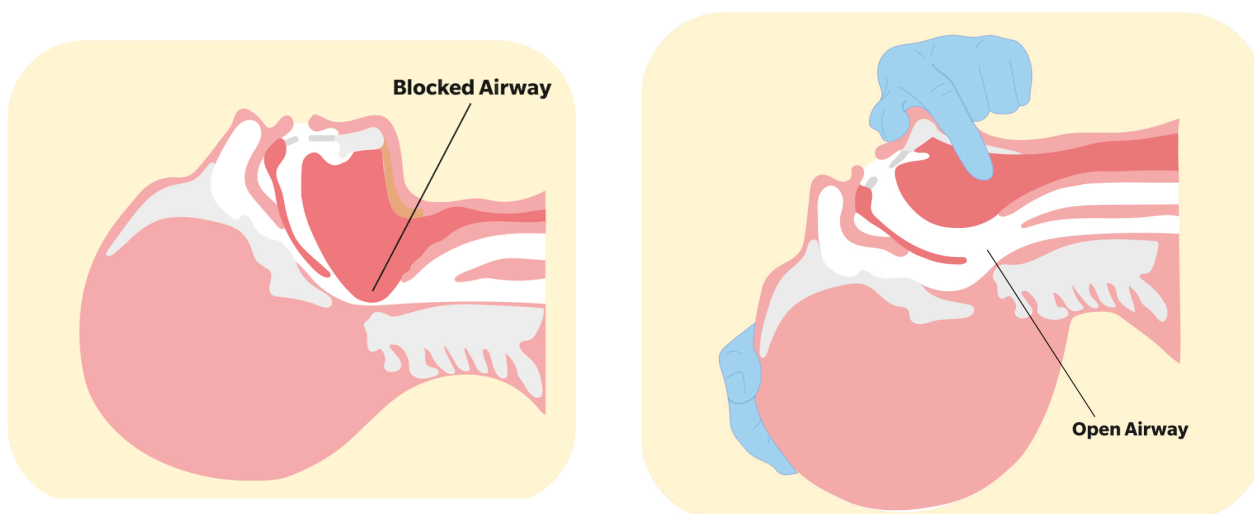
The victim should not be routinely rolled onto their side to assess for airway obstruction and breathing. Assessing the victim's airway while they are on their back takes less time, is easier and avoids unnecessary movement. Maintain an open airway by applying backward head tilt and chin lift.

Vomiting and regurgitation often occur after drowning due to large amounts of swallowed water. If matter such as sand, debris or vomit is found on initial assessment, or at any time during resuscitation, this needs to be removed from the upper airway to prevent obstruction. In this case, follow the flowchart below:





Repeated attempts to clear frothy or blood-stained fluid that continues to accumulate in the upper airway during resuscitation is likely to be unsuccessful. Lifesavers should continue with external chest compressions and rescue breaths to minimise unnecessary interruptions.



All body tissues, especially the brain, must be supplied with adequate oxygen. All persons who are unconscious require treatment using the principles of basic life support.

## Rolling a face-down victim onto their back (supine position)

**Note:** For the purpose of this description, you will be on the victim's left-hand side, facing the surf. It is possible to perform the procedure on either side of the victim.

Follow the steps below to roll a face down victim onto their side.

1. Kneel closely beside the victim.
2. Place the victim's right arm along their side and ensure that the left arm is extended above their head.
3. Using the victim's hip and shoulder, roll the victim onto their back.



[https://www.youtube.com/embed/uuORKMIO\\_Dw?rel=0](https://www.youtube.com/embed/uuORKMIO_Dw?rel=0)

## Rolling a victim onto their side (lateral or recovery position)

You should quickly roll a victim onto their side if they are vomiting or regurgitating or showing signs of recovery during CPR.



**Note:** In this description you are on the victim's right-hand side, facing the surf.

1. Kneel closely beside the victim.
2. Place the victim's left arm at right-angles to their body, pointing to the surf.
3. The victim's right arm may be across their chest or along their side.
4. Raise the victim's right leg at the knee, which is closest to you.
5. Use the victim's hip and shoulder to roll them onto their side, towards the surf.
6. Angle their right thigh to approximately 90 degrees to their torso to prevent them rolling onto their stomach.
7. Tilt the head backwards and slightly downwards while support of the jaw is maintained. This position allows drainage of fluids and mucus from the mouth. The victim's right arm can stay where it is or be placed under the victim's head for added support.

**Note:**

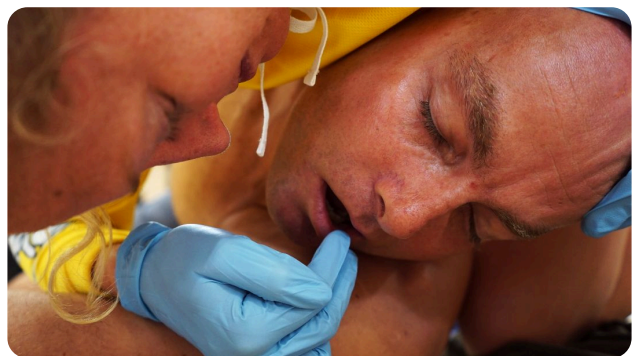
- If CPR is being carried out by a single operator, the victim should be rolled away from the operator to enable them to check and clear the airway and assess breathing.



- If CPR is being carried out within a team environment, the victim should be rolled towards the person doing compressions while the airway operator continues to manage the victim's airway.
- For larger victims, you may put one arm under the victim's raised knee to provide extra leverage instead of using the hip to roll the victim.
- A hip and shoulder roll should be carried out quickly in an attempt to minimise the inhalation of stomach contents into the lungs.



## Assessing the airway



1. Look in the victim's mouth to see if there is any material in the mouth, while maintaining backward head tilt, chin lift and drainage.
2. If there is any obstruction, let go of the chin and use your gloved fingers to sweep away any material such as vomit from the victim's mouth. If there are other visible obstructions in the victim's mouth, reach in and remove them with your gloved fingers. False teeth (dentures) should not be removed unless they are loose and interfering with the victim's airway.

Note: ANZCOR suggests against the use of blind finger sweeps for removing vomit/regurgitation. You should always look in the victim's mouth before attempting to clear their airway by seizing and



removing any visible items.

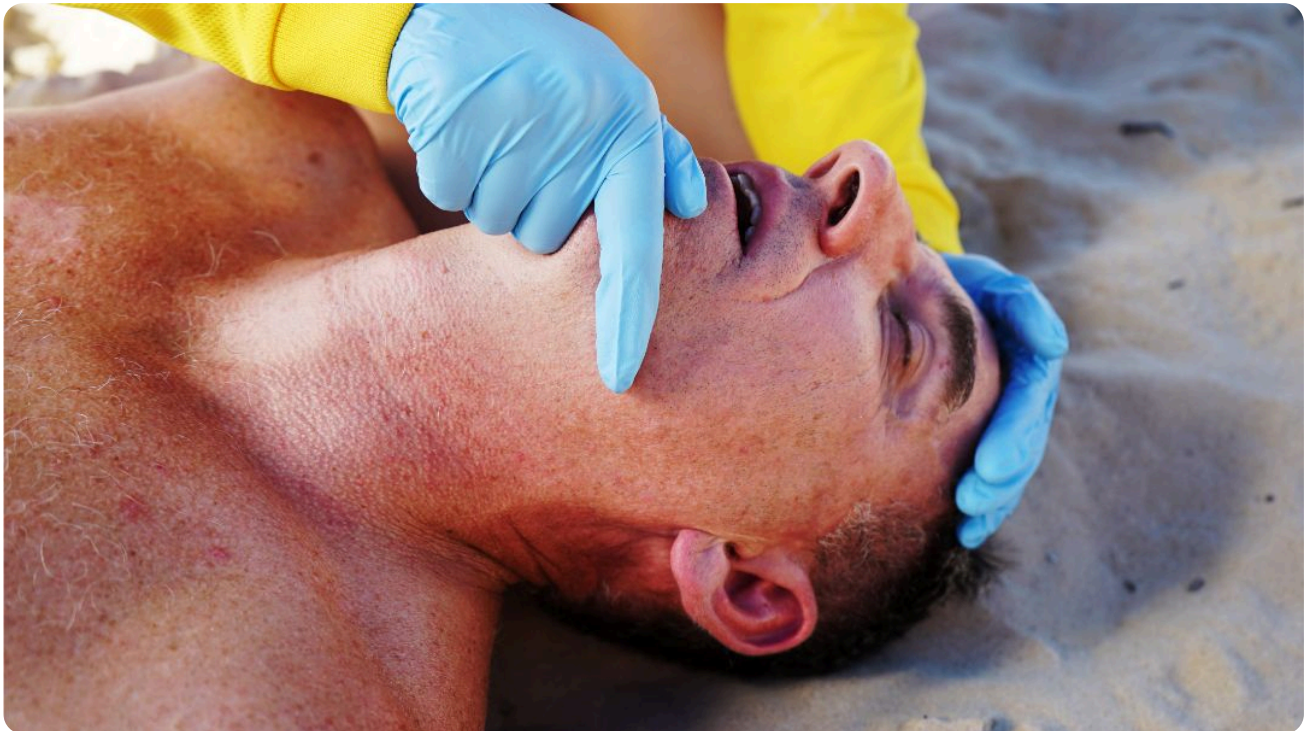
## Establishing an open airway

A clear airway is achieved by applying backward head tilt and chin lift. This ensures that the victim's mouth is open, the jaw is lifted forward, and the tongue and soft tissues are lifted away from the back of the throat.

Backward head tilt and chin lift is achieved by the jaw support ('pistol grip') or jaw thrust methods. It should be used whether the victim is lying on their back or their side. The victim's airway should be kept open where possible. While head tilt is important for effective rescue breaths, apply with caution if a neck/spinal injury is suspected.

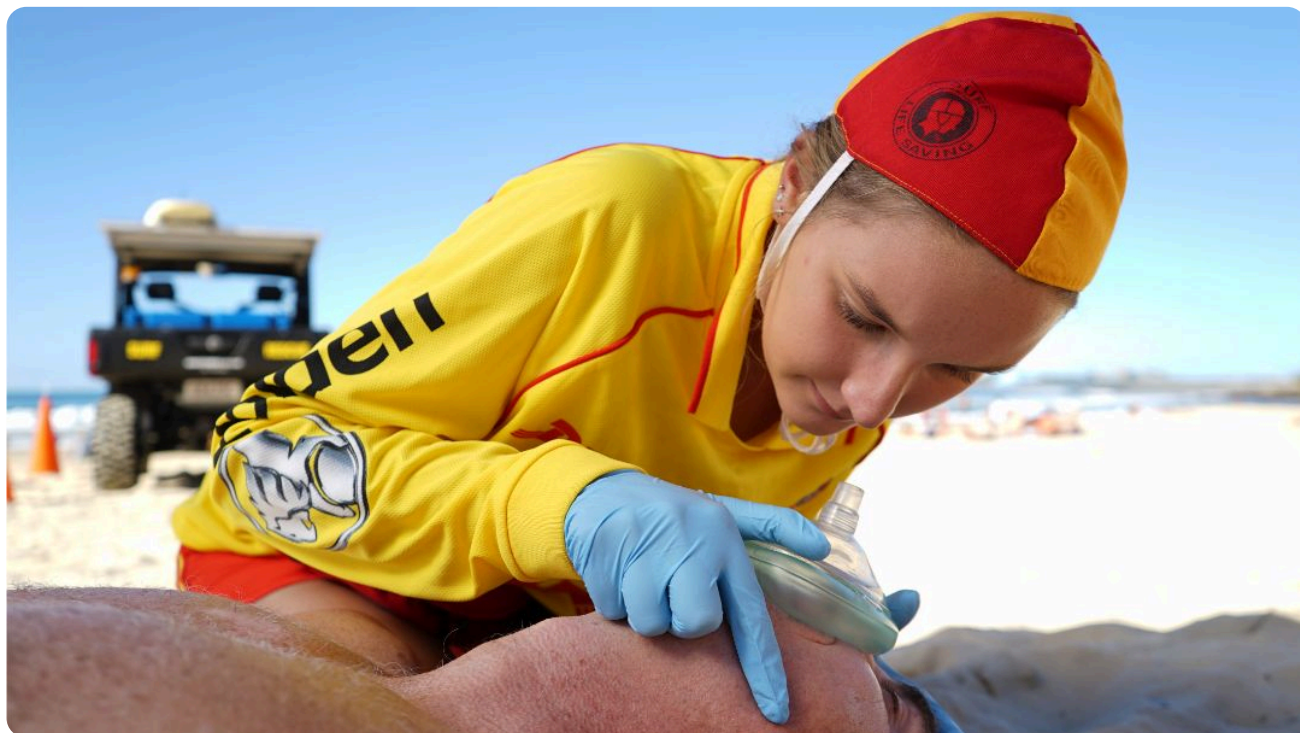
Where a spinal injury is suspected, commence with neutral head position and progress as necessary towards backward head tilt in order to achieve an open airway.

### Backward head tilt



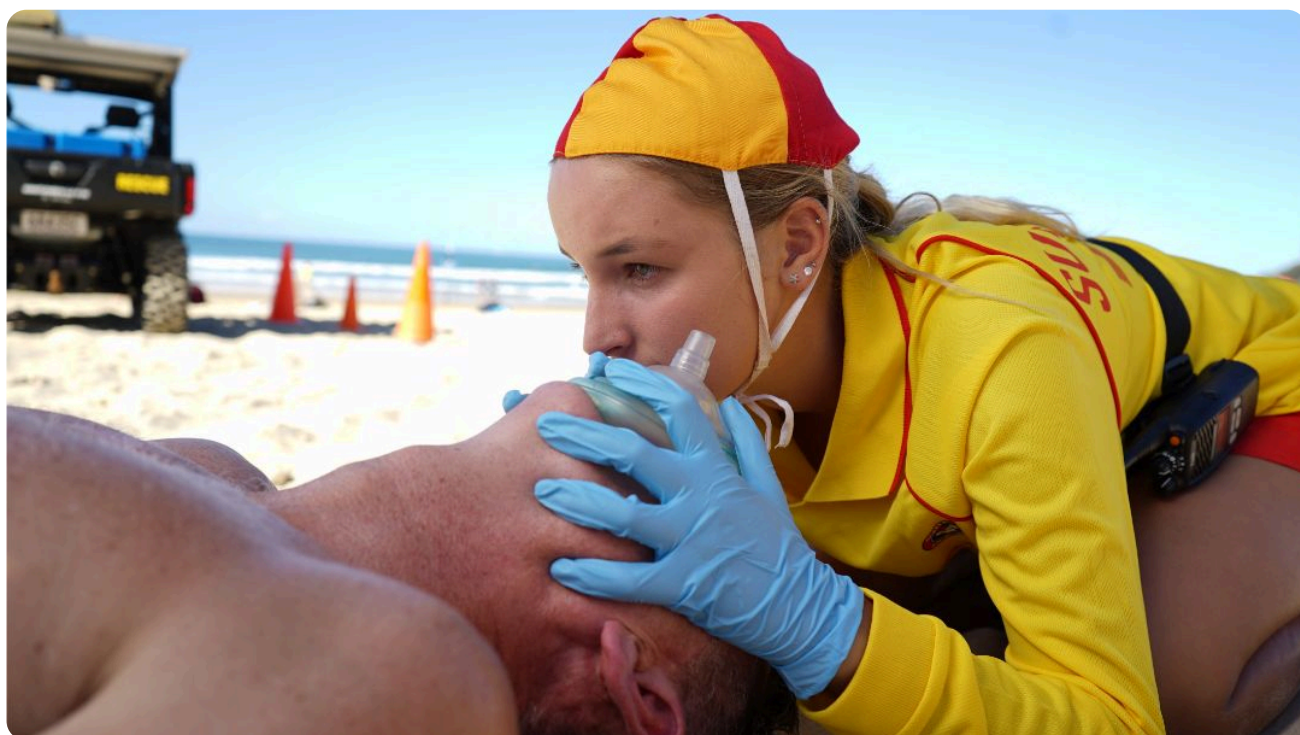
One hand is placed on the victim's forehead or the top of the head. The other hand provides chin lift. The victim's head is tilted backwards. It is important to avoid excessive force, especially where neck injury is suspected. You are encouraged to use this method in single person CPR scenarios.

## Jaw support ('pistol grip')



Place the thumb over the chin below the lip and support the tip of the jaw with the knuckle of the middle finger. The hand is held in a 'pistol grip' fashion with the index finger lying along the jaw line. Care is required to prevent the ring finger from squashing the soft tissues of the neck. The jaw is held open slightly and lifted up from the chin.

## Jaw thrust



Jaw thrust is a very efficient method of achieving backward head tilt and chin lift. You are encouraged to

use this method in two-person or team CPR scenarios.

In the jaw thrust method, you are positioned behind the top of the victim's head. Your middle, ring and little fingers are applied to the back part of the victim's jaw on either side of the angle of the jaw – lifting the jawbone upwards and outwards and opening the airway.

The index finger is applied to the line of the jaw, in front of the angle of the jaw. The thumbs are applied to either side of the mouth or, when using a mask, are used to seal the mask against the face.

In learning this hold, there is no substitute for frequent practice sessions on people rather than manikins. While manikins are essential in practice, jaw holds are best taught on the human jaw, as there are great size variations both in jaws and in your hands.

## **Airway for children and infants**

It is important to note that an infant's airway is different from an adult's, and is more likely to become blocked because an infant's

- head is relatively larger
- neck is relatively shorter
- tongue is larger
- windpipe is softer and more easily compressed.

## **Opening an open airway for children and infants**

Children's heads should be tilted slightly backwards to maintain their airway. The level of tilt is sometimes referred to as 'the sniffing position'.

Backward head tilt should not be used with infants, as it stretches the tissues and this may block the airway.

Instead, the head should be kept in the neutral position, with the lower jaw lifted at the point of the chin. If the neutral position does not provide a clear airway, it may be necessary to tilt the head back very slightly.

## **Lateral and recovery position for children and infants**

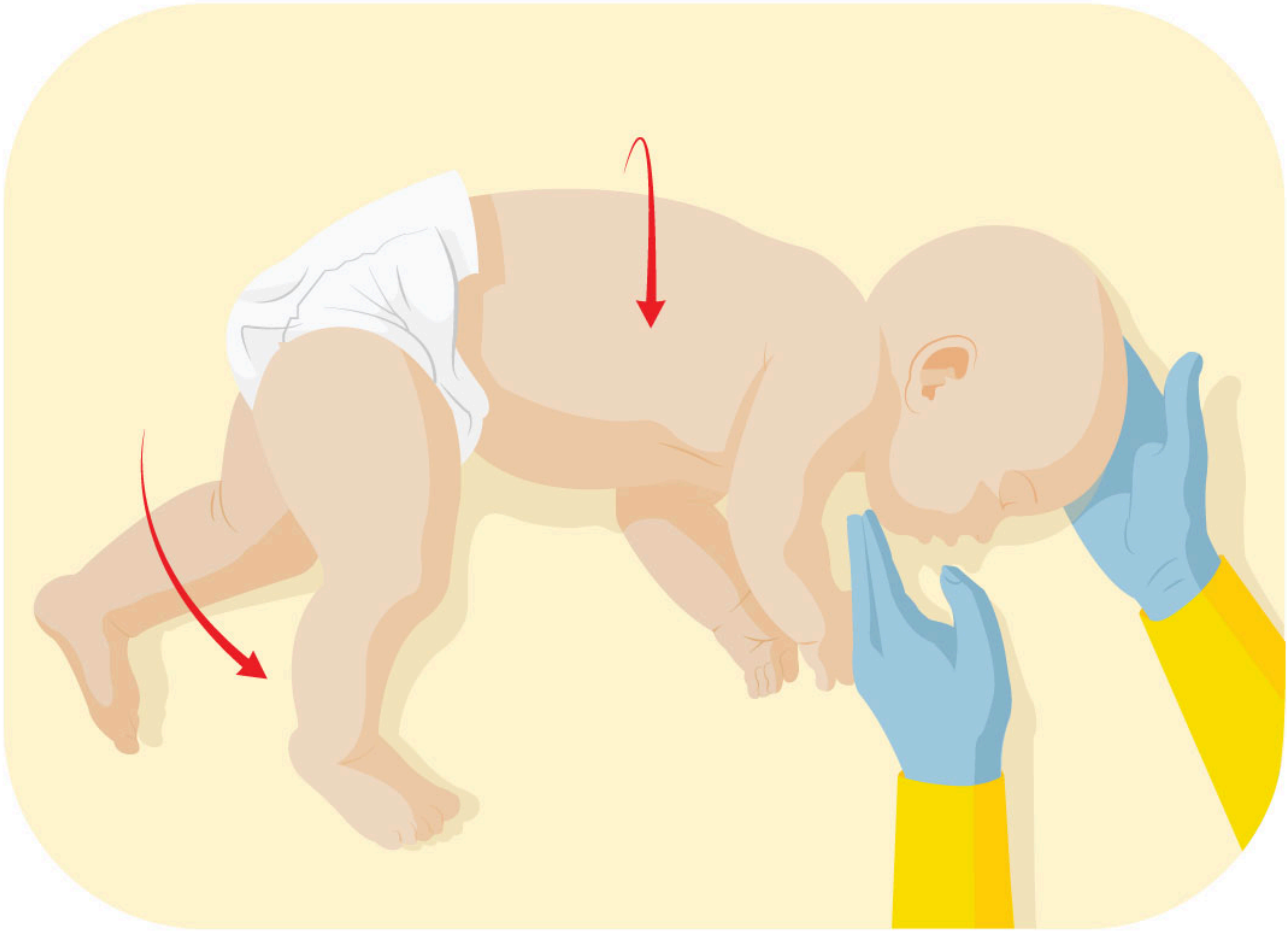
Children should be rolled into the lateral or recovery position the same way as an adult.

Infants can be rolled onto their side or rolled onto your arm (slightly facing downwards) to drain regurgitation or vomit.



If a child or infant vomits or regurgitates during CPR, roll them into the lateral position away from you to allow the contents to drain and check their airway for any foreign material that needs to be cleared. After the airway is clear, check to see if the young victim is breathing normally again.





Leave infants on their back on a firm and flat surface to check their breathing and monitor their skin colour – remember to keep them warm. Continue with CPR if normal breathing does not return or if they are still not breathing.

## Breathing

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Breathing may be checked when the victim is on their back or on their side. In both cases, keep the appropriate level of head tilt while you *look, listen and feel* for signs of normal breathing.

- Look for movement of the chest and upper abdomen.
- Listen for sounds of normal breathing, with your ear close to the victim's nose and mouth.
- Feel for any movement of air from the victim's mouth or nose with your cheek.



**Note:**

- The decision on whether the victim is breathing normally is usually easy, but the wind and the noise of the sea can cause difficulties.
- Do not mistake the occasional gasp for normal breathing; this is not normal breathing and the victim requires commencement of CPR.
- Movement of the lower chest and upper abdomen does not necessarily mean the person has a clear airway.

**Victim is breathing normally**

If the victim is breathing normally and unconscious, place them in the recovery (lateral) position while keeping them safe and warm.

**Victim is not breathing normally**

Commence CPR if the victim is unconscious and not breathing normally.



**Note:**

- A victim who has been submerged may be given two rescue breaths before commencing CPR.
- Be aware that any overinflation may cause a victim to regurgitate.

## Cardiopulmonary resuscitation

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Cardiopulmonary resuscitation (CPR) is the preservation or restoration of life by establishing and maintaining a person's airway, breathing and circulation.

A person whose natural heartbeat has become disrupted, or has stopped, may be kept alive by lifesavers who provide artificial circulation of the blood and artificial ventilation of the lungs (rescue breathing). External chest compression is capable of providing circulation of the blood. In this procedure, the heart is rhythmically compressed between the breastbone (sternum) and the backbone (spine). This procedure is known as cardiopulmonary resuscitation or CPR.

Any attempt at resuscitation is better than no attempt.

## CPR Procedure

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1. Ensure the victim is placed on their back and on a firm surface.
2. Comfortably kneel close to the victim's chest with one knee level with the victim's neck and the other level with the lower chest.
3. Visualise the 'centre of the chest' as you place the heel of one hand at that point while holding your wrist or interlocking fingers with your other hand. Keep your arms straight where possible to use your body weight to compress vertically at the centre of the victim's chest.
4. Perform 30 rhythmic compressions on the centre of the chest, compressing about one-third of the depth of the victim's chest at a rate of 100–120 compressions per minute. Make sure you release the victim's chest fully to allow blood to flow back into their heart.

5. Follow compressions with two rescue breaths. Look to see the victim's chest rise and fall after each rescue breath to check you are not over- or under-inflating.
6. Continually assess for consciousness and normal breathing without stopping compressions and ensure that the airway is kept clear.



#### Note:

- A lifesaver may be on either side of the victim, and procedures should be practised from both sides.
- A CPR cycle is complete following the delivery of the second rescue breath.
- Compression applied too high is ineffective. If applied too low, compressions may cause regurgitation and/or damage to internal organs.
- It is possible that ribs may fracture while performing compressions. If so, you should check your hands and continue with CPR.
- In team CPR scenarios, the airway operator is performing the rescue breathing and the compression operator is performing the compressions at any given point in time. Refer to the [Team CPR](#) section of this module for more information.
- Position yourself in a comfortable position in relation to the victim—kneel close to and alongside the chest of the victim so that you can apply vertical rhythmic compressions. This position minimises energy loss from shuffling and is best to avoid back injury. It will vary slightly for lifesavers of differing sizes and shapes.
- There is no need to measure or remeasure in order to determine the location point for chest compressions.

## Compressions

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### Hand positions

The methods described here are widely used. Your choice of hand position will depend on the size of the victim as well as your own body size, strength, personal preference and comfort.

Locate the centre of the chest. Place the heel of your preferred hand on this point. Your fingers should be parallel to the ribs, raised and relaxed, so that all pressure is applied to the victim's sternum and not to the ribs.



Apply vertical pressure from the shoulders through the heel of the compressing hand. Where possible, try and keep your compressing arm straight and use your body weight as the compressing force to effectively compress to one-third the depth of the chest. This takes less physical effort than trying to use the arm muscles and will be less tiring.

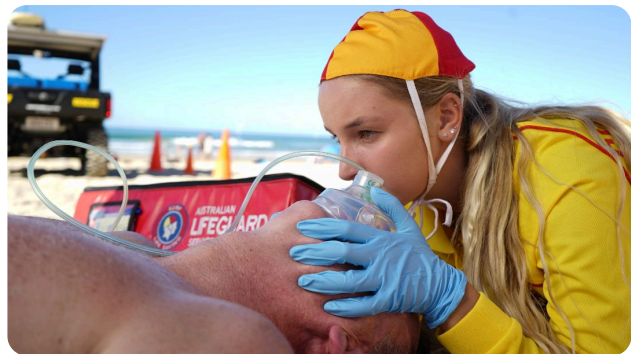
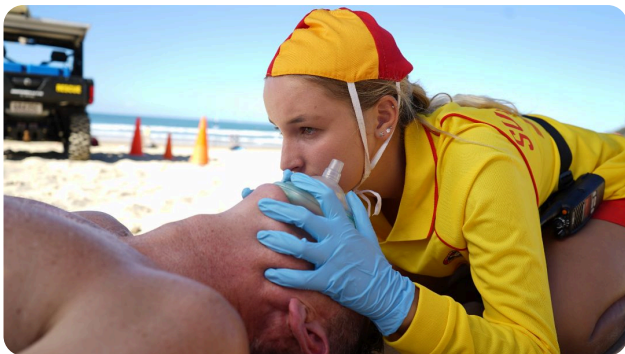
The other hand is placed securely on top of the first. To prevent the top hand slipping (and to avoid ineffective compressions), the fingers and thumb of the upper hand may be locked around the wrist or through the finger gaps of the lower hand.



## Rescue Breathing

There are three main methods of performing rescue breathing.

### 1. Mouth-to-mask rescue breathing



This is the recommended form of rescue breathing and uses a simple variation on the jaw thrust method of holding the airway open. The general rules are exactly the same as described later for mouth-to-mouth rescue breathing, but mouth-to-mask rescue breathing should be used whenever possible.

CPR should never be delayed while waiting for a resuscitation mask or oxygen to arrive at the scene. However, resuscitation masks should be carried with you when on patrol.

Backward head tilt is essential but apply with caution if a spinal injury is suspected. The victim's jaw may be lifted using the 'pistol grip' or jaw thrust method.

## 2. Mouth-to-mouth rescue breathing



Although it is possible for rescue breaths to be performed in different positions, it is customary for the victim to be positioned on their back. Follow the steps below to perform mouth-to-mouth rescue breathing.

1. Kneel beside the victim's head and open their airway by tilting their head back and lifting the jaw using jaw support or jaw thrust (cautiously if a spinal injury is suspected).
2. Place your mouth over the victim's slightly open mouth, sealing their nose with your cheek.
3. Blow until you see the victim's chest rise, then lift your mouth from the victim's mouth, allowing the air to leave the lungs. At the same time, turn your head and place your ear close to the mouth to listen for, and feel, the air leaving while you watch the chest return to its original position.
4. Watch the upper abdomen, and maintain backward head tilt and jaw lift, to ensure that the stomach is not becoming swollen with air (See *Distension of the stomach*).

The very nature of lifesaving requires that lifesavers be trained and prepared to administer mouth-to-mouth rescue breathing. The [International Lifesaving Federation Medical Position 11 \(2016\)](#) states that CPR for a drowning victim should include both chest compressions and rescue breaths. However, if you are unwilling or unable to perform mouth-to-mouth rescue breathing for a drowning victim, you should do chest compressions only.



### 3. Mouth-to-nose rescue breathing



Mouth-to-nose rescue breathing is used:

- in CPR of infants, when the lifesaver's mouth should cover the infant's mouth and nose
- in cases where severe facial injuries make it the preferred method
- in deep-water rescue breathing
- when a victim's jaw is tightly clenched
- when the airway operator prefers this method.

The technique for mouth-to-nose rescue breathing is similar to that used for mouth-to-mouth, except that in mouth-to-nose rescue breathing:

- air is blown into the nose
- the mouth must be sealed during inflation. In both methods, the air exits through both the mouth and the nose
- sealing the mouth is achieved by pushing the lips together with the thumb. You can also seal the mouth using the jaw thrust method
- the mouth is then opened after inflation, for air to exit.

The rules for inflating and watching the victim's chest are the same as in mouth-to-mouth rescue breathing.

#### Sealing the victim's airway

Sealing the victim's nose is necessary during mouth-to-mouth rescue breathing, and this is best done by the lifesaver's cheek. Occasionally, air will continue to escape from the victim's nose. In such cases, it is

necessary to change to the jaw support method (using 'pistol grip') and seal the nostrils with your thumb and forefinger.

If the nostrils are sealed using thumb and forefinger, there is a tendency to lose head tilt, so added care is needed to make sure that this does not happen.

## Team CPR

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When two lifesavers arrive at a scene where a victim requires CPR, one lifesaver should commence DRSABCD while the second lifesaver calls for assistance and obtains additional equipment and personnel as required, e.g., defibrillator, first responder with oxygen.

If two lifesavers are available to perform CPR, one lifesaver may perform rescue breathing while the other provides compressions. It is recommended that the operators switch providing compressions at least every five cycles (30:2), to prevent rescuer fatigue and deterioration in the quality of chest compressions. This should be done with minimal interruption to compressions.

Compressions may be counted out loud so that others can follow the CPR cycle. At a minimum, it is recommended that the last five compressions be counted aloud.

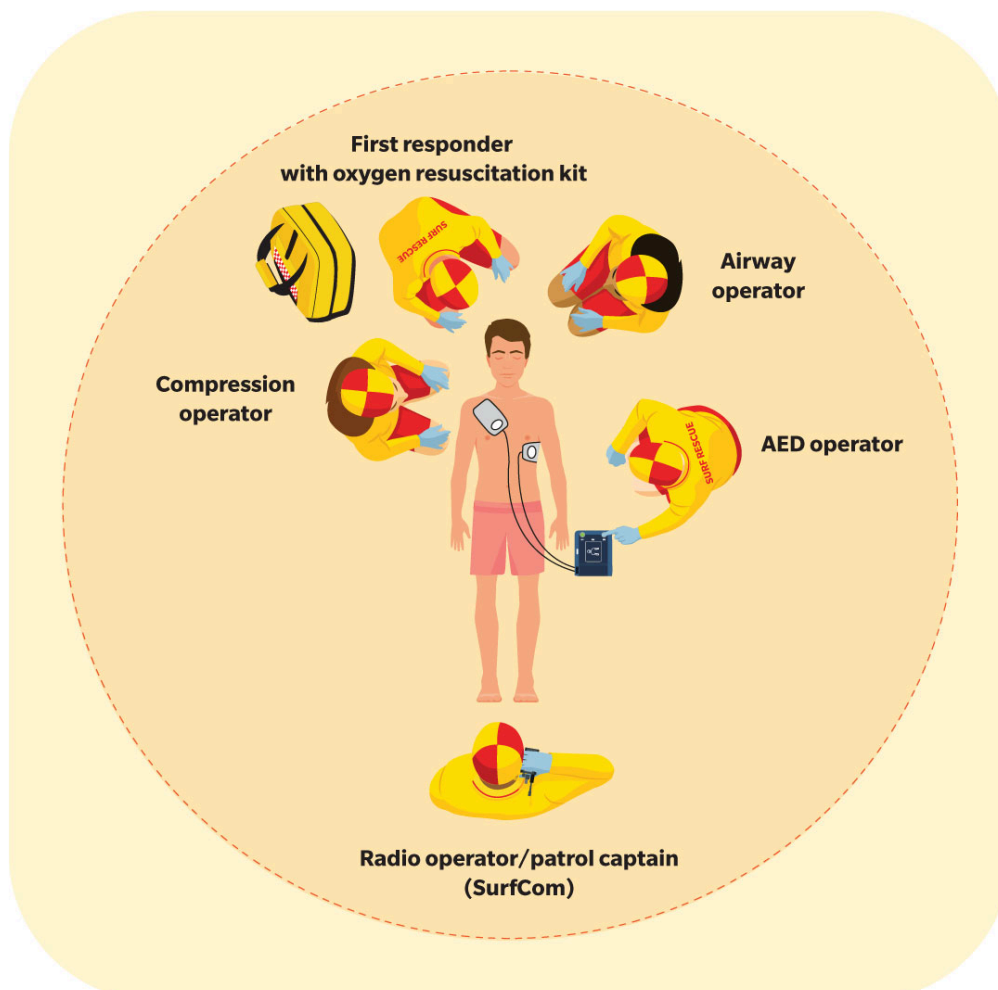
The airway operator who is managing the victim's airway coordinates the rollovers when a victim regurgitates or vomits. They may be behind the victim's head if they are using jaw-thrust method to maintain the victim's airway.

Qualified lifesavers may safely administer oxygen to any victim who is not adequately perfused. Trained lifesavers may assist them with the administration of oxygen-aided resuscitation and oxygen therapy during team CPR. Usually this assistance takes the form of ensuring the appropriate oxygen mask is



securely placed over the victim's airway and keeping the oxygen at a safe distance from potential sources of combustion, e.g., flames, cigarettes, defibrillator.

When additional lifesavers are available to help, they may approach the CPR scene from the victim's feet to introduce themselves and confirm an ambulance has been called before proceeding as directed by the airway operator.



# CPR for children and infants

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CPR for infants and children also involves compressions and rescue breaths.

## **Compression for children and infants**

Effective compression for both children and infants is applied at the centre of the chest and to approximately one-third of the depth of the chest. It is also performed at 100–120 compressions per minute.

You will usually use one or two hands to compress children and two fingers to compress infants.



## Rescue breaths for children and infants

The guidelines for performing rescue breaths on children are the same as those for adults, except for the volume of air to be blown into the victim. Great care must be taken in judging the volume of air to be blown into the lungs of a small person, as over-inflation increases the risk of regurgitation. The airway operator should blow only until the victim's chest is seen to rise, and then stop.

When performing rescue breaths on an infant:

- place your mouth over the infant's nose and mouth
- puff in just enough air through your slightly open mouth to cause the chest to rise
- use an infant resuscitation mask where available.

### Note:

- If an infant resuscitation mask is not available, an adult mask may be used in an upside-down position.
- The volume of air required is very small and practice should be carried out on infant manikins.

# CPR for a pregnant victim

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A visibly pregnant woman should have a towel or blanket placed under her right buttock during CPR (a good way to remember this is to use the saying, 'mother is always right'). If placing a pregnant victim in the lateral position, she should be positioned on her left side to avoid restricting blood flow in the inferior vena cava.

## CPR Overview

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**CPR overview**

<b>Head tilt</b>	Adult:	Full head tilt backwards.
	Child:	Slight head tilt backwards.
	Infant:	No head tilt (neutral position).
<b>No. of hands/fingers</b>	Adult:	2 hands
	Child:	1–2 hands
	Infant:	2 fingers
<b>Compressions: rescue breaths</b>	30:2	
<b>Location of compression</b>	Centre of chest	
<b>Depth of compression</b>	1/3 depth of chest	
<b>Compressions per minute</b>	100–120	
<b>Cycles every 2 minutes</b>	5–6	

**How long should CPR be continued?**

CPR should be temporarily suspended while a victim is being defibrillated and continued until:

- an authorised person declares the victim deceased
- the lifesaver cannot physically continue
- the risk of danger returns
- the victim is handed over to paramedics
- the victim recovers (is breathing normally).

Don't give up – people have recovered after resuscitation attempts lasting longer than an hour.

## **Complications during CPR**



<https://www.youtube.com/embed/hZSUcrOU1Bc?rel=0>

## Blocked airway

If the victim's chest does not rise with inflation, check that:

- the head is tilted back, and the jaw is lifted correctly
- the seal of your mouth or resuscitation mask is firm
- there is no foreign material in the airway
- enough air is being blown in.

## Vomiting and regurgitation

Vomiting is an active process in which muscular action makes the stomach eject its contents upwards. It is nearly always accompanied by a loud noise. You will usually know when a victim is vomiting or is about to vomit.

Regurgitation is the silent flow of stomach contents into the mouth and nose. It is the silence that makes regurgitation dangerous, as it may be very difficult to detect.

Both are extremely common during resuscitation, especially in cases of drowning where large amounts of water may be swallowed. Every victim who has vomited or regurgitated should immediately be rolled into the lateral position.

A person who regurgitates or vomits while lying face up (supine position) is very likely to inhale some of the stomach contents into the lungs, which may lead to serious lung damage and infection. Once a victim has regurgitated or vomited, it is essential that the victim be rolled onto their side immediately to clear any materials, then assess the breathing (See Rolling a victim onto their side).



## Distension of the stomach

In cases of drowning, the victim's stomach is often swollen at the time of rescue. This swelling of the stomach most often occurs because they have swallowed water and air in the process of drowning.

Stomach swelling may be made worse if rescue breathing is performed with the airway partially blocked by the tongue or foreign material, if you blow too hard, or if you blow too much air.

A distended stomach can be recognised by a persistent and possibly increased swelling in the upper part of the victim's abdomen. It leads to increased upward pressure on the diaphragm, making rescue breathing more difficult. It also greatly increases the risk of regurgitation.

No attempt should be made by lifesavers to reduce the swelling of a victim's abdomen; treatment of this condition should be left to ambulance paramedics or hospital staff. Check that all of the ARC guidelines for correct rescue breathing are being followed and that the airway is not blocked.

Further stomach distension can be prevented by:

- following the ARC guidelines for maintaining a clear airway
- watching for the rise and fall of the chest
- blowing only until you see the chest rise
- not blowing too quickly.

# Defibrillation

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The use of a defibrillator can greatly aid a person's chance of survival in the event that they require resuscitation.

Defibrillators are portable devices able to recognise shockable rhythms in a victim in cardiac arrest and to deliver an electric shock to return the heart to its normal rhythm. Early access to defibrillation, when combined with starting effective CPR as early as possible, provides the best chance of survival for a victim suffering cardiac arrest.

In the case of victims who have been submerged in water, a defibrillator is unlikely to advise that a shock is required. This is because most drowning victims are unconscious due to respiratory failure that progresses to a non-shockable cardiac arrest rhythm. A defibrillator will recommend a shock in only a small percentage of drowning victims. It is therefore important that all lifesavers maintain their training to perform effective CPR.



# Safety

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Lifesavers should be able to operate an automated external defibrillator (AED) safely on adults and children. Safety measures include, but are not limited to, the following:

## Victim

### ✓ DO

- Check responsiveness – a victim must be unresponsive and not breathing normally.
- Ensure the AED pads are not touching each other.
- Do not place AED pads over medication patches.
- Make sure that the AED pads are at least 8 cm away from an implanted pacemaker.
- Oxygen units should be moved away during defibrillation and the flow of oxygen from face masks directed away from the victim's chest.
- Remove any 'quick and easy to remove' necklaces or other body jewellery that is in the way of, or within 2.5 cm of, pad placement before AED use.

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## Environment

### ✓ DO

- Dry a wet victim's chest before positioning the AED pads.
- Ensure no-one has contact with the victim during defibrillation.
- Move the victim before operating the AED if they are on a conductive surface like a metal platform or a pool of liquid, e.g., water, vomit, blood.

- Avoid operating an AED in an unstable environment that may prevent it from performing a valid assessment of the victim, e.g., in a moving vehicle.

## ✗ DO NOT

- Operate an AED in an explosive environment, e.g., where gases or fumes might be present.

Refer to the AED manufacturer's guidelines to note more safety precautions for the AEDs used at your surf lifesaving club, e.g., their level of water resistance for wet weather conditions.

## Operation

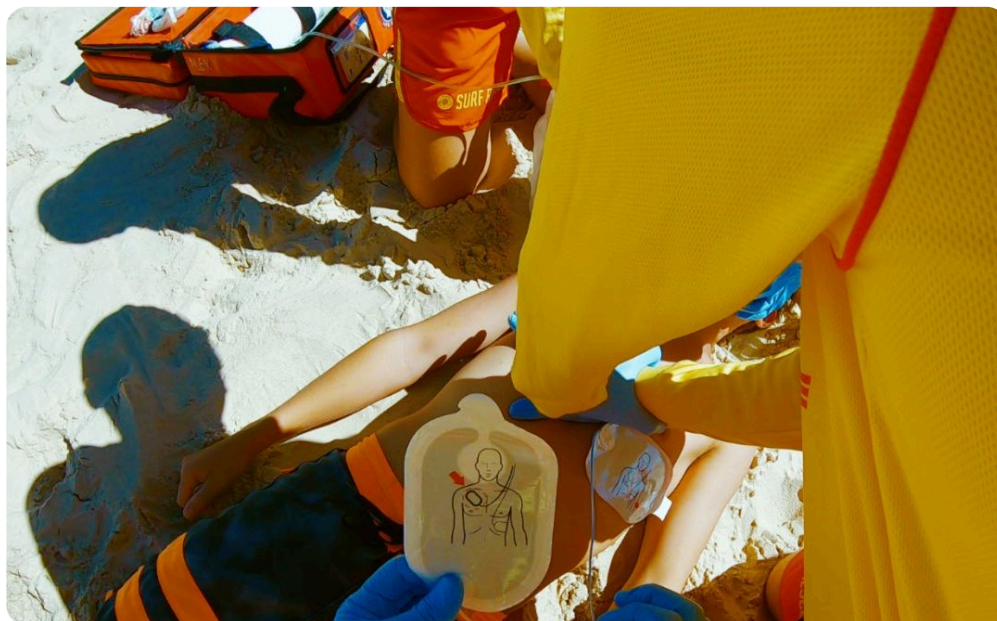


The AED operator is responsible for ensuring that the correct defibrillation process is followed; however, a more qualified and/or experienced lifesaver may be in charge of coordinating the situation and the lifesavers involved.

CPR should be commenced and continued with minimum interruption until an AED is ready to analyse. The AED operator will be in charge of the procedure. You should follow the AED operator's instructions.

1. Always check that conditions are safe for the use of an AED.
2. Turn on the AED and follow the prompts.
3. Apply AED pads to the victim's chest as per AED diagrams.
4. Respond to the AED prompts.
5. Deliver a shock in a safe manner if prompted to do so.
6. Respond to the AED prompts; this may include continuing CPR or checking the victim for normal breathing or a response.

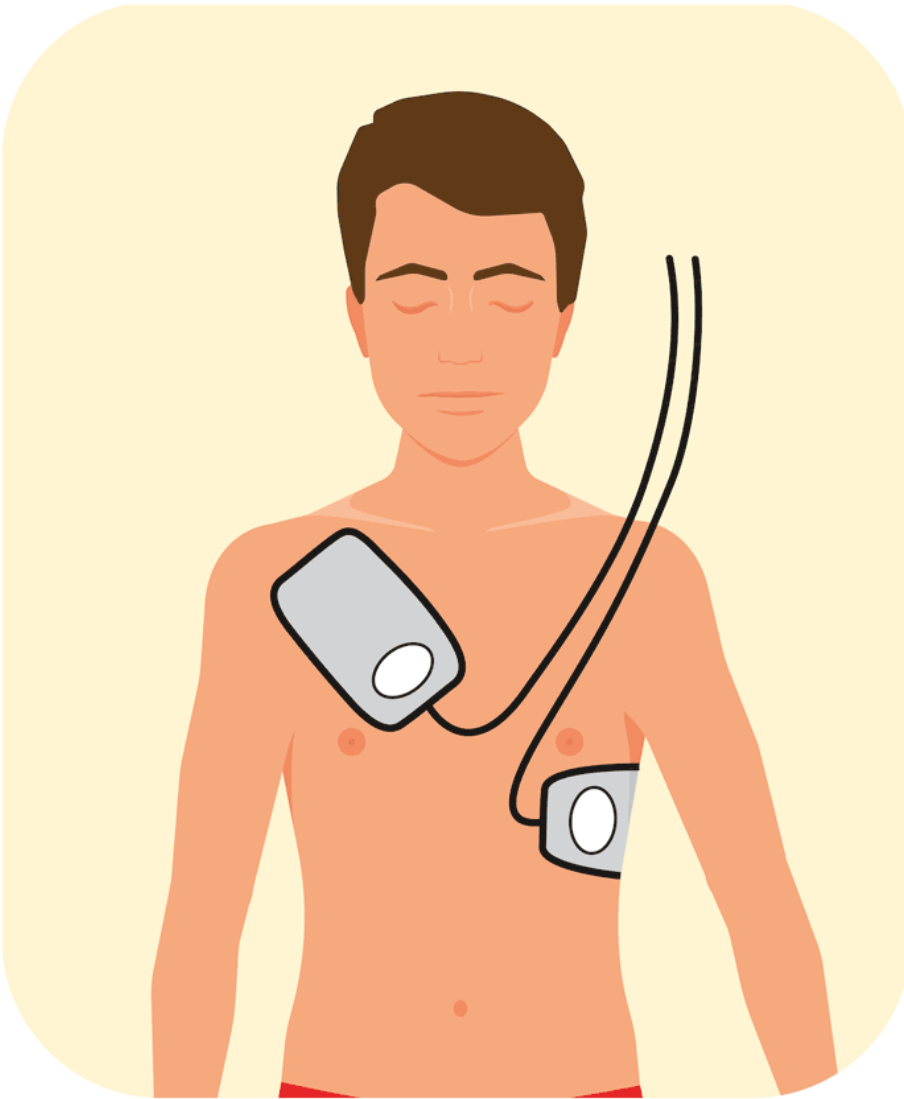
## Positioning of AED pads



Correct positioning of the AED pads is essential for successful defibrillation to take place. The optimal position is usually indicated on the AED pads or on the packaging they come in.

Place pads on the victim's exposed chest in an anterior-lateral position – one pad slightly below the collarbone on the victim's right chest and one pad on the victim's left side below their armpit.

Most AED pads are 'universal', which means it does not matter which is placed in each position as long as both positions are covered.



## Applying AED pads

The following points will help ensure effective adherence of AED pads.

- Apply AED pads after:
  - cutting clothing off a victim using shears if needed to access the victim's chest. This includes bras.
  - drying the victim's chest if required after their removal from an aquatic environment.
  - removing chest hair at the site of application with a razor or wax strips if needed to allow for pad adhesion to the victim's skin.
- Apply AED pads on clean, dry skin with a smooth rolling action to prevent air bubbles underneath.

## ✗ DO NOT

- use alcohol wipes to clean the skin



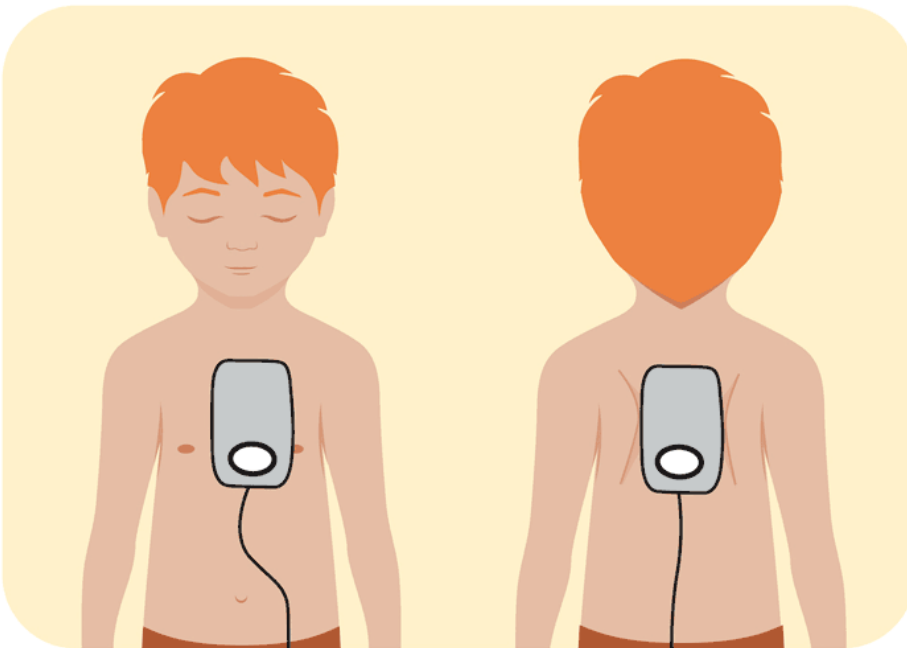
- reposition or remove AED pads once they have been applied.

## AED pads for children and infants

Standard adult AED pads are suitable for use on victims 8 years and older. Ideally, for children under 8 years old and infants, paediatric pads and an AED with a paediatric capability should be used. These pads are placed in the same way as the adult AED pads and come with a diagram of where on the chest they should be placed.

### Note:

- If the AED does not have a paediatric mode or paediatric pads – the standard adult AED pads can still be used. Apply the AED pads firmly to the bare chest in the positions shown in the diagram for adults, ensuring that they do not touch each other on the child's chest.
- If the AED pads are too large – use the front – back position. Apply one AED pad on the upper back (between the shoulder blades) and the other on the front of the chest, if possible, slightly to the left.



# Shock delivery protocols

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Shocks are delivered one at a time followed by a pause for AED recharging, response checks and resuscitation, as required. Once a shock has been delivered, recommence CPR unless the patient is showing signs of recovery.

Important shock delivery protocols to remember are:

- make sure all personnel are clear of the victim during analysis and before delivering a shock
- do not remove AED pads after a victim shows signs of recovery. Keep them in place to allow prompt action should the victim's condition deteriorate
- respond to all prompts within safety constraints.

All AED pads are single-use and should not be re-used on another victim.

## Examples of AED prompts and appropriate action

AED prompts may vary, depending on the make and model, but they are usually similar to those shown in the following diagram :

### AED prompts and appropriate action

Prompt	Action
<b>'Remove clothing'</b>	Use the shears provided to cut off victim's clothing if necessary, to access the victim's chest.
<b>'Apply pads'</b>	Apply pads to victim.
<b>'Analysing'</b>	Pause CPR and do not touch the victim.
<b>'Charging'</b>	Ensure conditions are safe for the delivery of shock.
<b>'Stand clear', 'Do not touch the victim'</b>	Keep clear of the victim.
<b>'Shock advised', 'Press to shock', 'Push flashing button'</b>	Look and warn other operators, then push the shock button.
<b>'No shock advised', 'If needed continue CPR'</b>	Check responsiveness and breathing then continue CPR if necessary.
<b>'Motion detected'</b>	Ensure that you are using the AED on a stable surface.



## Recovery



If breathing has returned, you should roll the victim into the lateral position and maintain an open airway, while continuously monitoring the victim's breathing. Remember to leave infants on their back on a firm and flat surface to check their breathing and monitor their skin colour. Update your patrol captain and emergency services of any changes in the victim's condition. A first responder may introduce oxygen at this time if not already in use.



# Management of the victim after CPR

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Remember that recovery may only be temporary, and you must continue to monitor the victim closely. Breathing may stop after early success with resuscitation. In such cases, CPR must be started again.

To manage a victim after CPR:

- assist a first responder to monitor and record the victim's vital signs (see table below)
- handle the victim gently at all times
- leave any AED pads applied in position
- maintain a clear airway and continue to monitor breathing
- make conscious victims comfortable and reassure them
- monitor the victim's conscious state
- protect the victim's privacy and dignity—cover them with towels, blankets or clothing where appropriate and/or create a screen around them using towels and/or beach umbrellas
- protect the victim from extremes of heat or cold and, depending on the circumstances, use blankets or other protection from the hot sun. Make sure you maintain clear observation of the victim's airway and breathing.

## Summary of normal and abnormal signs for adults and children

## Normal/abnormal signs for adults and children

### Conscious state

**Check** Alert, voice, pain, unconscious

**Normal** Alert and orientated  
Responds to voice or pain

**Abnormal** Drowsy or unconscious  
Does not respond to voice or pain

### Breathing

**Check** Rate, rhythm, sounds

**Normal** Adult: 15–20 breaths/min  
Child: 20–25 breaths/min  
Infant: 30–40 breaths/min

**Abnormal** Adult: <15 or >20 breaths/min  
Child: <20 or >25 breaths/min  
Infant: <30 or >40 breaths/min

### Pulse

**Check** Rate, rhythm, volume

**Normal** Adult: 60–100 beats/min  
Child: 80–100 beats/min  
Infant: 110–160 beats/min

**Abnormal** Adult: <60 or >100 beats/min  
Child: <80 or >100 beats/min  
Infant: <110 or >160 beats/min

### Skin

**Check** Colour, condition, temperature

**Normal** Warm and natural colour

**Abnormal** Cool or hot, pale, moist,  
red/flushed, blue/cyanosed

# Documentation

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An incident report must be completed and provided to your patrol captain for any incident involving CPR. A copy can be given to the paramedics who arrive on the scene if requested.

When completing a report:

- detail an accurate and factual account of events
- sign and date the form as well as any alterations. Do not use correction fluid
- write with an ink pen.

Details of the incident should not be released without the consent of the victim and must be kept confidential as per privacy legislation supported by your local SOPs.

## Victim handover

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After an ambulance has been called, continue to perform CPR if required and maintain the safety of yourself, the victim and bystanders until the ambulance paramedics accept responsibility for them. Do not stop CPR when they arrive.

As part of your handover, you should provide a concise summary of relevant details known about the victim, the incident and treatment provided as this information aids further treatment decisions. An incident report can assist you with this. These are legal documents and may be required to be shown as evidence in a court of law.

The mnemonic IMIST AMBO is used by ambulance officers in many states and can assist lifesavers in the delivery of a clear, concise and structured handover.

**IMIST AMBO****I Identification**

Identify the victim by their name, age and gender.

**M Mechanism of injury/Medical complaint**

What happened, how and when?

**I Illness and injury**

Information obtained during a primary and/or secondary victim assessment (signs and symptoms).

**S Signs**

Vital signs (pulse, breathing rate, skin colour, temperature) and conscious state.

**T Treatment and trends**

First aid treatments provided and responses to treatment over time.

**ALLOW FOR QUESTIONS**



**A Allergies**

Any known allergies?

**M Medications**

Any medications recently or regularly taken (prescribed or illicit)?

**B Background history**

What is the victim's medical background history?

Do they have a MedicAlert® bracelet or necklace?

**O Other information**

Other information about the victim:

- Any belongings to go with the victim to hospital?
- Any communication barriers?
- Any cultural or religious considerations?
- Names of first responders/lifesavers on the scene?
- What is the victim's social situation?
- What is the scene? e.g. surf conditions

**ALLOW FOR QUESTIONS**

Information about the health of a victim must be kept confidential. Only authorised people, such as the patrol captain and club executive officers should be able to see it. Giving away personal information without the victim's approval is unethical, and in some cases may be illegal.

All lifesavers involved in a resuscitation incident should report to their patrol captain after the victim has been handed over to take part in a debrief. Refer to the *Safety and Wellbeing* module for more information on the importance of debriefing and mental health following a critical incident while on patrol.

## Module 6 – Reflection Questions

You are now ready to attempt the eLearning component of your course for this module. You can access the eLearning through the [SLS Members Area](#). You should also test your knowledge by reading through the following reflection questions. If you find yourself answering 'no' or 'not sure' to any of them, you may wish to speak with your trainer for clarification.

1. Do you know what the '[Chain of Survival](#)' is?
2. Are you confident in your understanding of [DRSABCD](#)?

3. Are you aware of the [legal considerations](#) related to the provision of emergency care (duty of care, consent, recording and confidentiality)?
4. Do you know how to ensure that [CPR](#) effective?
5. Are you confident in effectively performing [CPR individually](#) and as [part of a patrol team](#)?
6. Are you aware of the [safety precautions](#) that should be considered when using an AED?

# Module 7 – Emergency Care

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- [Safety First](#)
- [Best Practice Guidelines](#)
- [First Aid Kits](#)
- [Secondary Assessment](#)
- [Advanced Medical Assistance](#)
- [Cardiovascular Emergencies](#)
- [Respiratory Emergencies](#)
- [Circulation Emergencies](#)
- [Allergic Reactions](#)
- [Brain-related Emergencies](#)
- [Temperature-related Emergencies](#)
- [Musculoskeletal Injuries](#)
- [Venomous Bites and Stings](#)
- [Module 7 – Reflective Questions](#)

## Safety First

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Several diseases may be transmitted during the provision of emergency care and first aid. Remember to protect yourself and others against diseases by taking infection control precautions such as:

- maintaining a clean work environment
- practising good cough etiquette

- safely disposing of contaminated materials
- safely disposing of sharps
- washing your hands in warm soapy water
- wearing personal protective equipment (PPE).

Refer to the safety first training in the resuscitation module of this manual for more detailed information on safety precautions to take when providing emergency care.

## Best Practice Guidelines

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The emergency information contained within this manual is based on the Australian Resuscitation Council (ARC) guidelines available at the time of publication. The ARC recommends that all those trained in basic emergency care should refresh their training at least every 3 years.

Information is also based on Safe Work Australia's model code of practice for first aid in the workplace. This model code of practice includes information on first aid kits and offers guidance on how to provide adequate first aid facilities in Australian workplaces, such as surf lifesaving clubs.

## Aims of First Aid

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First aid aims to minimise pain and

- preserve life
- prevent an injury or illness from becoming worse
- promote recovery
- protect people from danger
- provide reassurance and comfort to the ill or injured.

## Legal Considerations

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As a lifesaver on patrol, you have a duty of care to provide emergency care within the limits of your training so far as is reasonably practicable. When a person is conscious and requires first aid, you must first obtain their consent to provide treatment before commencing. For people under the age of 18, you will need their parent's or guardian's consent where possible.

After you begin providing emergency care for someone, continue to treat them until:

- another person trained in the provision of first aid or advanced medical assistance takes over
- the incident scene becomes unsafe
- the person, their parent or guardian withdraws their consent
- you are physically unable to continue.

While providing first aid it is important to remember to:



- accurately complete incident documentation.
- act within the limits of your training
- follow the guidelines as set down in this manual and recognised peak bodies such as the ARC
- maintain a person's right to privacy
- obtain consent to provide treatment where appropriate
- seek appropriate advanced medical assistance if required
- treat people with respect and dignity

During any legal proceedings that may follow an incident, such as a worker's compensation or insurance claim, you will be judged against the standard of emergency care to which you have been trained. For any claim to be successful, it must be proved that damage was caused by your negligence. Negligence can be established if:

- a duty of care was owed
- the standard of care required was breached
- injury occurred to the person receiving treatment

## First Aid Kits

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## FIRST AID EQUIPMENT

First aid kits are identifiable by a white cross on a green background displayed on the outside. They should be kept in a visible and accessible location so anyone can retrieve them promptly. All lifesavers should know exactly where the nearest first aid kit is located for retrieval in an emergency.

**Note :** The equipment referenced within this Emergency care module relates to the contents of SLS club first aid kits that meet Australian standards.

# Contents

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Under state and territory legislation, first aid kits must be kept in the workplace. Various state and territory regulations may stipulate appropriate contents of a first aid kit because codes of practice or guidelines on first aid issues are part of Workplace Health and Safety (WHS) requirements.

A decision on the exact type and contents of a first aid kit takes into consideration the likelihood of situations that could occur and require the provision of first aid. For example: trauma kits at surf lifesaving clubs for shark or crocodile attacks, special event kits for sports carnivals, occupational first aid kits for the office and basic first aid kits in lifesaver bum bags for roving patrols. Other factors to consider include the distance from medical or hospital services, time taken to reach that service, number of people normally at the location and the number of first aid qualified personnel usually available.



Taking guidance from Safe Work Australia's model code of practice for first aid in the workplace notes, first aid kits in SLS clubs should include:

- a list of the contents for that kit
- first aid manual including a resuscitation chart
- notebook and pen
- bandages
  - roller bandages in a range of sizes that may be made from cotton or elasticised crepe
  - triangular bandages
- dressings
  - adhesive dressings in a range of sizes—plastic or fabric (those with a dressing patch and adhesive cover)
  - combine pad
  - non-adherent dressings
- instruments
  - scissors
  - shears
  - tweezers/forceps
- other
  - adhesive dressing tape
  - antiseptic liquid/spray

- disposable gloves
- disposable vomit bags
- emergency thermal blanket
- eye pad
- face shield
- gauze squares
- hand sanitiser
- instant heat packs
- instant ice packs
- safety pins
- saline solution
- sealable plastic bags
- sharps container
- single-use pocket resuscitation mask with oxygen inlet
- splinter probe
- vinegar (tropical areas)
- wound cleaning wipes.

**Note:** A first aid kit at your SLS club may also contain some medications allowed as per your local state/territory legislation, e.g., asthma inhaler, EpiPen®, aspirin.

## Bandages and Dressings

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Bandages and dressings are one of the most frequently used pieces of first aid equipment as they are used to treat a range of emergencies.

### Bandages

Bandaging is an extremely useful first aid skill and can help to:

- control bleeding
- keep dressings in place
- protect and keep a wound clean
- provide support
- prevent swelling
- restrict movement.

Bandages that are frequently used by first responders include:

- roller bandages—long, thin bandages rolled up that are used to support joint injuries and hold dressings in place



- triangular bandages—large, triangular-shaped pieces of cloth that you can fold to use as either a bandage or sling, or as a pad for large wounds and burns
- pressure immobilisation bandages—often elasticised, these help put pressure on wounds to stop bleeding and reduce swelling.

## Dressings

Dressings are used to soak up blood and other fluids, to assist the body in forming a clot, to help reduce pain and to protect wounds from infection.

Dressings come in many shapes and sizes to cover different wounds and their margins. They are made from a range of materials. There are medicated and non-medicated dressings, sterile or non-sterile dressings, combined dressings, non-adhesive and adhesive dressings, gauzes and hydrogels, all of which help in the administering of first aid.

Sterile dressings should be removed from their packet with gloved hands only when the wound is ready to be covered.

Non-adhesive dressings need to be held in place by bandages or medical tape.

### ✗ DO NOT

- use a sterile dressing that is past its expiry date
- use cottonwool or other materials with loose fibres that might stick to a wound during healing.

## Maintaining First Aid Kits

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It is essential that first aid equipment be replaced immediately after it has been used. This will ensure that your first aid kit is fully stocked and ready to use again. A first aid kit is maintained by:

- cleaning equipment after use as per manufacturer instructions
- developing and implementing protocols to ensure that first aid equipment is ready for use at all times
- making sure that first aid kits and equipment are checked regularly
- recording any discrepancies, using established club and organisation protocols
- removing sterile products that are no longer sealed or have been tampered with
- restocking first aid supplies after use or prior to expiry.

As an SLS member, you should help stock and maintain the contents of any first aid kit according to the manufacturer guidelines and your organisational SOPs. If your SLS club has a first aid officer assigned to maintaining the club's first aid kits and first aid room, you still need to inform your patrol captain of any first aid equipment that needs cleaning or replacing.

# Secondary Assessment

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After completing a primary assessment that includes checking for danger and putting on personal protective equipment, e.g., gloves and protective glasses, a secondary assessment should be carried out to identify and assess other injuries a person may have and to prioritise their treatment. It may include a physical assessment when consent has been obtained from the person. During a secondary assessment is also when you should assess the person's pain levels, monitor their condition for improvement or deterioration, provide reassurance and complete incident documentation.

## Secondary Assessment Procedure

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The following steps outline how to complete a secondary assessment.

It is important to note that you should recommence a primary assessment any time during this procedure if the person becomes unresponsive to questioning or unconscious.

Secondary assessment steps include:

1. make introductions—introduce yourself and ask the person their name
2. gain consent to provide (and document) treatment
3. ask and record how the person feels:
  - are they experiencing any pain or discomfort
  - where do they feel pain or discomfort
  - how they would rate it from 'none' (0) to 'worst pain or discomfort possible' (10)
  - are they feeling anxious, nauseous, dizzy, distressed, cold, short of breath or generally unwell

4. ask the person questions while collecting information from them to inform treatment. Record details in an incident report form. You may use the mnemonic SAMPLE as a guide:
  - **S** –signs (record what you see, smell and hear) and symptoms (ask and record how they feel)
  - **A** –allergies
  - **M** –medications
  - **P** –past medical history
  - **L** –last oral intake
  - **E** –events leading up to the illness or injury
5. Gain consent to touch—ask the person if you can gently perform a basic body check
6. Complete a secondary survey (basic body check) with the person's consent:
  - Remain calm while continually informing the person what you are doing and ask their permission to do it before acting—ensure you still have their consent to proceed
  - Use your senses:
    - look—for bleeding, deformity, penetrating objects, spontaneous movements, abnormal skin colour, abnormal breathing. Also, look for the person's ability to open their eyes and wriggle their fingers and toes
    - listen—for the person's responses to questions and pain stimuli, and any signs of abnormal breathing
    - feel—gently pat areas to feel for deformity, swelling, skin temperature and texture, and wetness that may suggest bleeding
    - smell—to note any odours that may indicate other issues
    - Sequentially examine the following body areas to check for signs of any additional injuries or illnesses:
      - head, face and neck
      - shoulders and front of chest, ribs, abdomen and pelvis
      - front and back of limbs—upper then lower
      - back (if possible)
7. Prioritise the treatment of any additional injuries identified using the four Bs to help you:
  - i. breathing
  - ii. bleeding
  - iii. burns
  - iv. breaks
8. Provide treatment according to best practice guidelines
9. Manage the person's pain levels (see Pain management)
10. Monitor and reassure the person (see Monitoring and reassuring a person)
11. Document the details of the secondary and primary assessments in an incident report form as well as the treatment provided.

**Note:**

- Another member of your patrol team may ask the person questions and document details in an incident report while you complete a secondary survey.
- As a general rule in a multiple person situation, an unconscious person takes priority over other persons. However, you may need to make a decision in some extreme situations, such as mass rescues, about which person will most benefit from your assistance.
- Ask open questions, e.g., 'How are you feeling?'. Do NOT pose leading questions, e.g., 'Do you feel nauseous?'
- Be mindful of the person's age, gender and culture and maintain their dignity when asking questions and providing treatment.
- Look to see if the person has a medical alert bracelet or necklace, or if there is any medication near the person.
- Move the person if they are in immediate danger, require extraction, need to be in a different position to maintain their airway or control severe bleeding, or to protect them from extreme weather conditions. This often takes teamwork and planning as moving a victim is a hazardous manual task.
- Pay careful attention to areas such as the groin and armpit where blood may be hidden.
- Record any time the person's level of consciousness changes.

## Pain Management

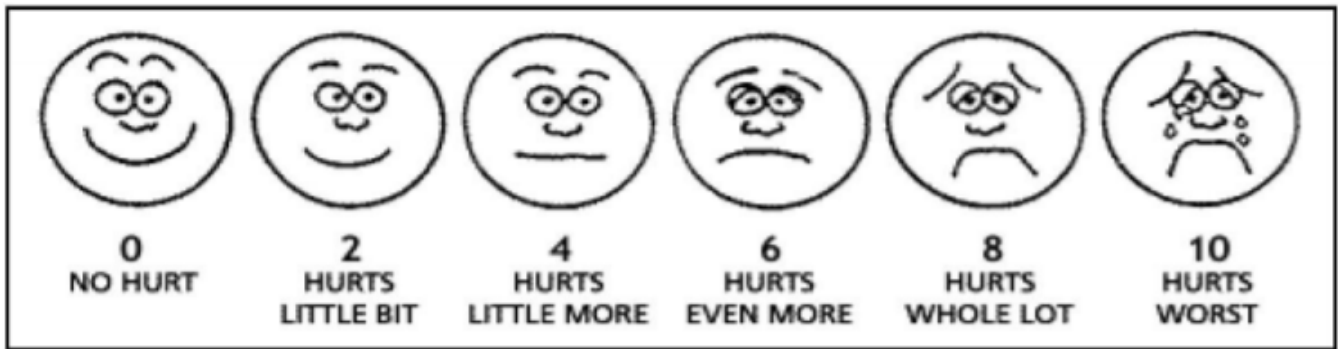
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A person suffering pain will be very focused on the pain and how they feel, so they can be overwhelmed. They often find it difficult to express how they are feeling and to listen to any assistance being provided. It is very important that a calm and professional approach is adopted to help them manage the pain until paramedics arrive.

It is important to assess the person's level of pain prior to administering treatment. This will assist you and paramedics to decide whether simple pain management methods such as rest, ice and immobilisation will manage the pain or if more formal pain management techniques are required. It is best practice to also assess the pain levels at regular intervals during the provision of first aid to gauge and document the effectiveness of treatment.

In addition to having a person indicate their pain on a level of 'none' (0) to 'the worst pain possible' (10), the Wong–Baker FACES® pain rating scale may be used. It is often useful with young children aged 3 years and older and may also be useful for adults with a disability or people from non-English speaking backgrounds. Point to each face using the words provided to describe the pain intensity, then ask the person to choose the face that best describes their own pain and record the appropriate number.





## Monitoring and reassuring the person



Monitoring a person's condition begins as you approach them for a primary assessment and continues throughout the secondary assessment procedure. You or a member of your lifesaving team should regularly record the person's breathing, pulse and state of consciousness every few minutes to help determine if the person's condition is worsening, stable or improving over time. Refer to the Management of the person after CPR section of this manual for a summary of normal and abnormal vital signs for adults and children.

A period of observation is recommended following the provision of emergency care. If the person's condition has not deteriorated and their vital signs are normal after an appropriate period of observation, it is reasonable to discharge the person from your care. For emergencies requiring an ambulance, you should continue to monitor the person's condition, record their vital signs, provide reassurance and follow the advice of the ambulance service until the paramedics accept responsibility for the person.

Providing the person with reassurance while respecting their dignity can help reduce any anxiety as well as encourage the sharing of details that can help inform treatment and determine the person's condition over time. You can help reassure a person receiving emergency care by:

- acting confidently to instil trust
- advising the person what you intend to do and seek permission before you do it
- advising the person if an ambulance has been called or help is on its way
- asking open questions
- being as honest as possible
- making the person comfortable with minimal movement
- providing appropriate pain relief
- responding to the person in a culturally aware, sensitive and respectful manner
- staying with the person
- using their name when addressing them.

## Documentation

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The details of both a primary assessment (DRSABCD) and a secondary assessment need to be accurately recorded in an incident report.

It is important to remember that written documentation is mandatory under state and territory regulations for work health and safety in addition to:

- being used to support insurance, compensation or workers compensation claims
- providing protection for the injured person, SLS and yourself
- providing information for SLS data collection such as data on hazards for club safety officers and first aid responses for SLS annual reports
- supporting accurate sharing of information during person handovers to paramedics.

Refer to the [Resuscitation module](#) this manual for more information about documentation and person

*handovers.*

## Advanced Medical Assistance

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The management of some emergencies requires you to request an ambulance while others may require you to refer the person to a medical practitioner.

## Requesting an ambulance

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You should send for help, additional resources and request an ambulance when a person experiences any of the emergencies outlined in the below table.

Emergency	Request an ambulance for
Cardiovascular	<ul style="list-style-type: none"> <li>• Cardiac arrest</li> <li>• Heart attack</li> </ul>
Respiratory	<ul style="list-style-type: none"> <li>• Complete airway obstruction</li> <li>• Severe asthma</li> </ul>
Circulation	<ul style="list-style-type: none"> <li>• Internal bleeding</li> <li>• Major external bleeding</li> <li>• Severe, life-threatening bleeding</li> <li>• Shock</li> </ul>
Allergic reaction	<ul style="list-style-type: none"> <li>• Anaphylaxis</li> </ul>
Brain-related	<ul style="list-style-type: none"> <li>• Suspected stroke</li> <li>• Suspected head injury with 'red flags' identified</li> </ul>
Temperature-related	<ul style="list-style-type: none"> <li>• Severe and life-threatening hypothermia</li> <li>• Heat stroke</li> <li>• Heat exhaustion—person's condition deteriorating</li> </ul>
Musculoskeletal injury	<ul style="list-style-type: none"> <li>• Fractures</li> <li>• Dislocation—major joints or when showing signs of decreased circulation below the dislocation</li> <li>• Suspected spinal injury</li> </ul>
Venomous bite or sting	<ul style="list-style-type: none"> <li>• Blue-ringed octopus</li> <li>• Box jellyfish</li> <li>• Cone shell</li> <li>• Funnel-web spider</li> <li>• Irukandji</li> <li>• Stingray</li> <li>• Venomous snakes, including sea snakes</li> <li>• Bites or stings to the face or tongue</li> </ul>
Other	<ul style="list-style-type: none"> <li>• Abdominal injuries</li> <li>• Burns—partial or full thickness burns; burns to the hands, feet, face or genitals</li> <li>• Crush injuries</li> <li>• Diabetic emergency—severe hypoglycaemia or hyperglycaemia</li> <li>• Loss of consciousness—no matter how brief</li> <li>• Persistent moderate to severe pain</li> <li>• Seizures</li> </ul>

Table 1 – Emergencies requiring an ambulance

After you have confirmed an ambulance has been requested, continue to monitor and reassure the person until the paramedics accept responsibility for them. You should also provide pain management where appropriate. At the same time, you should maintain safety at the scene. As per your resuscitation training, you should use an incident report form and the mnemonic [IMIST AMBO](#) to assist you to provide a clear, concise and structured handover to paramedics.

## Referring to a Medical Practitioner

You should send for help and additional resources to provide first aid treatment then refer the person to a medical practitioner when they experience any of the emergencies outlined in the below table.



Emergency	Refer to a medical practitioner following treatment for
Respiratory	<ul style="list-style-type: none"> <li>Moderate asthma</li> </ul>
Circulation	<ul style="list-style-type: none"> <li>Wounds requiring surgical closure, e.g., stitches or medical glue</li> </ul>
Allergic reaction	<ul style="list-style-type: none"> <li>Moderate allergic reactions</li> </ul>
Brain-related	<ul style="list-style-type: none"> <li>Suspected brain injury with no 'red flags' identified</li> </ul>
Temperature-related	<ul style="list-style-type: none"> <li>Extensive sunburn, e.g., blistering</li> </ul>
Musculoskeletal injury	<ul style="list-style-type: none"> <li>Dislocation—minor joint with signs of normal circulation below the dislocation</li> <li>Sprains and strains</li> </ul>
Venomous bite or sting	<ul style="list-style-type: none"> <li>Non-life-threatening bites and stings</li> <li>Sea urchin—spine under skin</li> </ul>
Other	<ul style="list-style-type: none"> <li>Needlestick injury</li> <li>Eye irritation</li> <li>Persistent hyperventilation</li> </ul>

**Table 2 – Emergencies requiring referral to a medical practitioner**

**Note:** There are also medical information services you may wish to refer to for further information.

For example, the Poisons Information Centre—call 13 11 26 at anytime from anywhere in Australia if you suspect someone has been poisoned, bitten by something poisonous or has made a medication error.

## Cardiovascular Emergencies

Cardiovascular emergencies relate to the circulatory system (heart and blood vessels).

Remember to gain a person's consent before providing emergency care for cardiovascular emergencies and provide treatment within the limits of your training.

**Note:** An ambulance should be requested for anyone showing signs and symptoms of a cardiovascular emergency.

## The Heart

Circulation of the oxygenated blood around the body is caused by the mechanical action of the heart.

Should the heart stop beating, the delivery of oxygenated blood required by all parts of the body would cease and organ failure may result. Refer to the *Resuscitation* module of this manual for more information on the heart and how it forms part of the circulatory system.

# Cardiac Arrest

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Cardiac arrest is when the heart stops pumping oxygen-rich blood around the body due to an electrical problem in the heart.

A person is often unconscious and breathing abnormally or not breathing at all until a normal heart rhythm can be restored.

## Signs and symptoms

- No normal vital signs (signs of life)
- Not breathing normally
- Unconscious

## Management

Primary assessment (follow DRSABCD):

- send for help, additional resources (AED) and request an ambulance
- provide CPR
- apply an AED and follow its prompts if the person is unconscious and not breathing normally.

# Heart Attack



A heart attack is a sudden and complete blockage of a coronary artery that supplies oxygen-rich blood to the heart.

A person is often conscious and breathing with chest pain.

## Signs and symptoms

- arms may feel heavy
- chest pain or discomfort
- this can often feel like a heaviness, tightness or pressure in the centre of the chest
- it may feel it's spreading from the chest to different parts of the upper body—arm(s), shoulder(s), neck, jaw and/or back
- feeling nauseous
- feeling generally unwell or 'not quite right'
- feeling dizzy or light-headed
- feelings of indigestion
- pale skin
- shortness of breath
- sweating
- vomiting

### Note

- Some people may present signs and symptoms of a heart attack as a warning sign before cardiac arrest occurs.

- Signs and symptoms can come on suddenly or develop over minutes and get progressively worse.
- The person may have just one symptom, or a combination of several.
- The person may suffer from a condition known as angina, which presents the same signs and symptoms as someone experiencing a heart attack. First responders should manage people with angina as a suspected heart attack.

## Management

1. Send for help, additional resources (AED) and request an ambulance.
2. Reassure and advise the person to sit comfortably and rest.
3. Loosen any tight clothing.
4. Assist the person to take aspirin (300 mg) where available.
5. Monitor and reassure the person while waiting for paramedics to arrive.

### Note

- Place the person in the recovery (lateral) position if they become unconscious and are breathing normally.
- Commence CPR and apply an AED if the person becomes unconscious and is not breathing normally.
- Dissolvable aspirin is preferred when available.
- First responders qualified in advanced resuscitation may safely administer oxygen to persons showing the signs and symptoms of angina. Refer to the SLS Pathways website or the appropriate person at your SLS club for more information on advanced resuscitation training.
- Refer to the latest [ARC Guideline for the Recognition and First Aid Management of Heart Attack](#) to learn more.

# Respiratory Emergencies

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Respiratory emergencies relate to the respiratory system (upper and lower airways).

When assessing respiratory emergencies, it is important to assess not only the breathing rate, but also the effort it takes to breathe.

Remember to gain a person's consent before providing emergency care for respiratory emergencies and provide treatment within the limits of your training.

## Respiratory system

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The respiratory system supplies the body with a constant supply of oxygen. It consists of the upper and lower airways. Refer to the [Resuscitation](#) module of this manual for more information on the respiratory system.



# Asthma

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Asthma is a condition in which the air passages of the respiratory system become narrowed due to muscle spasm, swollen mucous membranes and/or increased mucus production. This makes it difficult for the person to breathe, especially to exhale.

Common triggers for asthma include:

- allergens such as pollens or smoke
- cold air
- chest infections
- emotional factors
- exercise.

## Signs and symptoms

- A dry, irritating, persistent cough
- Chest tightness
- Shortness of breath
- Wheezing

## Severe, life-threatening asthma attack

- Blue discolouration around the lips
- Difficulty to speak a few words at a time or unable to speak
- Gasping for breath
- Feeling distressed and anxious
- Loud wheeze or no wheeze heard
- Pale and sweaty skin
- Reduced consciousness
- Severe chest tightness
- Sucking in of the throat and rib muscles
- Unable to move around

**Note:** Wheezing may or may not be audible depending on the severity of an asthma attack. In severe asthma attacks, the audible wheezing may subside as the condition worsens with very little air moving in and out of the lungs. This is an emergency situation. Never assume that a decreased audible wheeze is a sign of improvement *unless* the breathing also improves.

## Management

1. Seat the person comfortably upright while providing reassurance.
2. Obtain and shake a blue/grey reliever inhaler (puffer), e.g., Ventolin.

3. Give four separate puffs (one round) of the inhaler (through a spacer if available)
  - shake the inhaler before delivering each puff one at a time
  - ask the person to take four breaths after each puff (through a spacer if available)
  - repeat until all four puffs have been taken.
4. Send for help and request an ambulance.
5. Keep giving four puffs every four minutes until the person's condition improves or the paramedics arrive.

#### Note

- An easy way to remember the use of the inhaler is the 4×4×4 round rule—4 puffs, with 4 breaths after each puff, and waiting 4 minutes after the fourth puff before commencing another round.
- Send for help and request an ambulance immediately if the person is showing any signs of a severe asthma attack, no inhaler is available or their condition suddenly becomes worse.
- Use the person's own inhaler if possible. If not, use the inhaler in the first aid kit or borrow one from someone else.
- Ask them if they have an individual asthma management plan you can follow.
- First responders qualified in advanced resuscitation may safely administer oxygen to persons showing the signs and symptoms of asthma. Refer to the SLS Pathways website or the appropriate person at your SLS club for more information on advanced resuscitation training.
- Refer to the latest [ARC Guideline for Asthma](#) to learn more.



# ASTHMA FIRST AID

1



**SIT THE PERSON UPRIGHT**

- Be calm and reassuring
- Do not leave them alone

2



**GIVE 4 SEPARATE PUFFS OF BLUE/GREY RELIEVER PUFFER**

- Shake puffer
- Put 1 puff into spacer
- Take 4 breaths from spacer
- Repeat until 4 puffs have been taken
- Remember: Shake, 1 puff, 4 breaths

OR give 2 separate doses of a Bricanyl inhaler (age 6 & over) or a Symbicort Inhaler (over 12)

3



**WAIT 4 MINUTES**

- If there is no improvement, give 4 more separate puffs of blue/grey reliever as above

OR give 1 more dose of Bricanyl or Symbicort inhaler

## IF THERE IS STILL NO IMPROVEMENT

4



**DIAL TRIPLE ZERO (000)**

- Say 'ambulance' and that someone is having an asthma attack
- Keep giving 4 separate puffs every 4 minutes until emergency assistance arrives

OR give 1 dose of a Bricanyl or Symbicort every 4 minutes – up to 3 more doses of Symbicort



Translating and Interpreting Service  
131 450



**ASTHMA AUSTRALIA**

Contact Asthma Australia

**1800 ASTHMA**  
(1800 278 462)

[asthma.org.au](http://asthma.org.au)

### CALL EMERGENCY ASSISTANCE IMMEDIATELY AND DIAL TRIPLE ZERO (000) IF:

- the person is not breathing
- the person's asthma suddenly becomes worse or is not improving
- the person is having an asthma attack and a reliever is not available
- you are not sure if it's asthma
- the person is known to have Anaphylaxis – follow their Anaphylaxis Action Plan, then give Asthma First Aid

Blue/grey reliever medication is unlikely to harm, even if the person does not have asthma.

# Choking

An airway obstruction may be partial or complete for a conscious or unconscious person. A partial airway obstruction may progress to a complete airway obstruction within seconds. A complete obstruction is commonly referred to as choking.

## Signs and symptoms

Lifesavers need to be able to assess the signs of partial or complete airway obstructions for both conscious and unconscious persons.

Partial airway obstruction	Complete airway obstruction
<ul style="list-style-type: none"><li>• Coughing spasms</li><li>• Difficulty breathing</li><li>• Noisy breathing</li><li>• Difficulty speaking</li><li>• Some escape of air can be felt from the mouth</li><li>• Change of skin colour</li></ul>	<ul style="list-style-type: none"><li>• Agitation</li><li>• Gasping, gagging or whistling sounds</li><li>• No sound of breathing</li><li>• Loss of voice</li><li>• No escape of air can be felt from nose and/or mouth</li><li>• Skin turning blue</li></ul>

**Table 3** – Signs of partial and complete airway obstruction

After asking the person if they are choking, look for non-verbal responses from a person indicating that a partial airway obstruction has progressed to a complete one. For example:

- nodding their head in response to your question
- pointing to their throat
- showing the universal choking sign – namely clutching their throat.





## Management

### Partial airway obstruction

1. Reassure the person.
2. Encourage them to keep coughing to expel any foreign material.
3. Reassure and monitor the person until they recover, or the partial airway obstruction progresses to a complete one.

### Complete airway obstruction

1. Send for help, additional resources (AED) and request an ambulance.
2. Place the person in the appropriate position to begin treatment:
  - **adult or child** – bent forward while in a sitting or standing position.
  - **infant** – head downward position and on their front across your thigh.
3. Perform up to five sharp back blows:
  - In an upward motion using the heel of your dominant hand in the middle of the person's back between their shoulder blades.
  - Quickly assess the person's airway after each back blow for signs of the foreign material's removal and normal breathing.



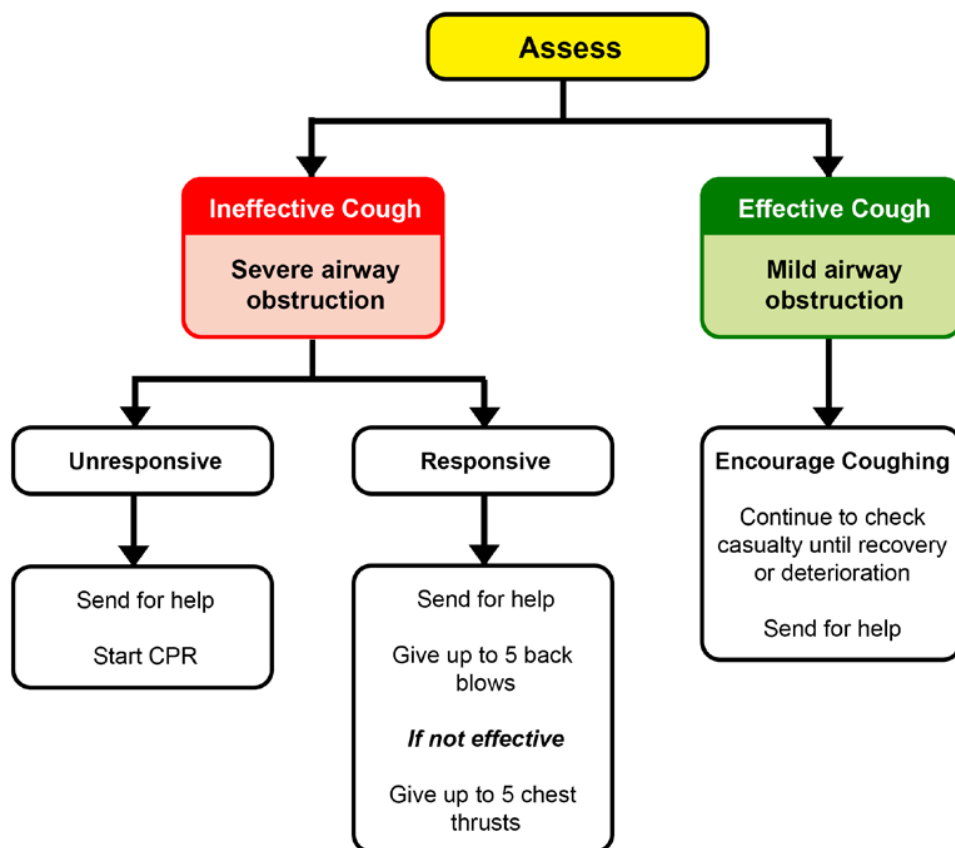
4. Place the person in the appropriate position to progress the treatment:
  - **adult or child** – lying down on their back

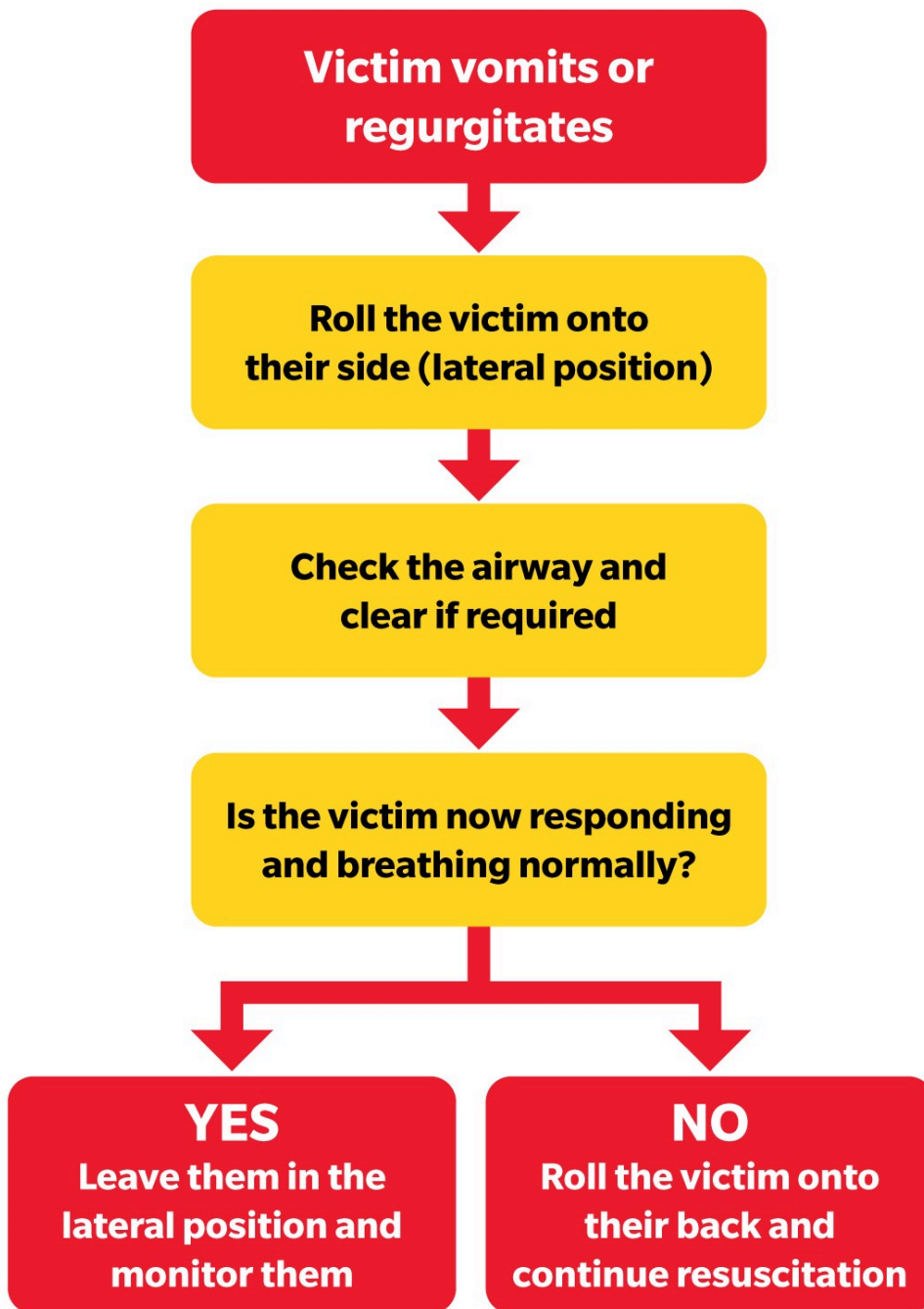
- **infant** – head downward position and on their back across your thigh.
5. Perform up to five sharp chest thrusts (compressions):
    - At the centre of the person's chest.
    - Quickly assess the person's airway after each chest thrust for signs of the foreign material's removal and normal breathing.
  6. Continue to perform five back blows followed by five chest thrusts in a rapid sequence until the foreign body is removed, or the person becomes unresponsive.



## Note

- The aim of the back blows and chest thrusts is to gradually relieve the airway obstruction. You may not need to perform all five of them.
- Chest thrusts are the same as chest compressions for CPR, but they are performed more forcefully and at a slower rate.
- Do NOT thrust the person's abdominal area (the Heimlich manoeuvre) as this can cause internal injury or vomiting.
- If the person becomes unconscious:
  - Make sure that you send for help immediately.
  - Look for any foreign material in their airway and clear it by using your fingers to remove it or sweep it away.
  - Start [CPR](#).
- There may be some resistance from an airway obstruction when providing rescue breaths. If you blow the obstruction into the lower airways in your efforts to resuscitate the person, hospital staff can later remove the obstruction.
- Refer to the latest [ARC Guideline for Breathing](#) to learn more.





## Circulation Emergencies (Bleeding)

---

Bleeding is the loss of blood from the circulatory system. It can occur inside the body (internal bleeding) or blood can be lost outside of the body (external bleeding). External bleeding is primarily managed by applying direct pressure on the wound or around a protruding object. Internal bleeding must be treated by a medical practitioner.

Remember to gain a person's consent before providing treatment for bleeding emergencies and provide treatment within the limits of your training.

At all times, you must avoid direct contact with the blood, or any of the body fluids of the person, by wearing gloves and other PPE such as protective glasses.



# Circulatory system

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The circulatory system moves blood around the body. The main components of this system are the heart, arteries, veins and capillaries. Refer to the [Resuscitation](#) module of this manual for more information on the circulatory system.

## Signs and symptoms

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### External bleeding

The signs of external bleeding depend on the type of damaged blood vessel:

- oxygenated blood from an artery appears bright red and will spurt out in time with the person's heartbeat
- deoxygenated blood from a vein appears dark red and will flow steadily out of the body
- bleeding from a capillary will appear bright red and flows steadily out of the body.

### Internal bleeding

The signs of internal bleeding include:

- altered state of consciousness
- bleeding from orifices in the body, e.g., ears, nose, mouth
- blood in urine or stool
- bruising
- feeling weak or lightheaded
- nausea
- pain
- pale skin—all over or localised
- shortness of breath
- signs of shock that are unresponsive to treatment (see [Shock](#)).

## Severity

---

Unlike minor bleeding from small cuts and abrasions, severe bleeding can lead to a significant drop in blood pressure, shock and death.

Minor	Major	Severe, life-threatening
<ul style="list-style-type: none"> <li>Bleeding stops on its own or with pressure</li> </ul>	<ul style="list-style-type: none"> <li>Bleeding slows or stops with pressure but starts again if you remove the pressure</li> <li>Blood slowly soaks through a few bandages and is not out of control</li> </ul>	<ul style="list-style-type: none"> <li>Bleeding does not stop or slow down with pressure</li> <li>Blood quickly soaks through many bandages and is out of control</li> <li>Arterial tourniquet may need to be used in addition to bandages</li> </ul>

**Table 4 – Severity of bleeding**

## Minor cuts and abrasions

An abrasion occurs when the superficial skin layer is scraped off, causing damage to capillaries and minor external bleeding.

A cut occurs when the superficial and deeper layers of skin and tissue are sliced or torn, causing damage to capillaries, arteries and/or veins and minor external bleeding.

### Management

1. Gain consent to provide (and document) treatment.
2. Clean dirty areas with antiseptic, washing away from the wound.
3. Clean the wound with water, sterile saline or a moistened gauze square.
4. Control bleeding—apply firm direct pressure and rest until bleeding stops.
5. Completely cover the wound with a sterile, absorbent, non-stick dressing (this may be self-adhesive).
6. Obtain a roller bandage or tape to secure the dressing in place if it is not self-adhesive:
  - roller bandage—with the roll facing upward, anchor the bandage over the dressing with two rotations around the limb. Then continue rotations on a slight angle along the limb towards the body until the affected area is suitably covered. Each rotation should cover approximately two-thirds of the previous rotation.
  - medical tape—apply the tape over the dressing (not the wound) and ensure it is secured to clean dry skin. Do NOT stretch the tape as you secure the dressing and use enough for it to extend about 1 cm beyond the dressing.



#### Note

- A sterile, absorbent, non-stick and self-adhesive dressing that does not require to be secured in place with a bandage or tape may also be used to completely cover wounds. Ensure that the self-adhesive part of the dressing does not touch the wound.
- Abrasions that contain ground-in dirt, road material or other foreign material may leave serious and unattractive scars unless promptly treated by thorough cleaning in hospital. This applies particularly to abrasions or cuts on the face.
- Cleaning of a wound before any dressing is applied to it reduces the risk of infection and diseases such as tetanus. Advise the person to see a medical practitioner if they notice any signs of infection.
- Minor cuts and abrasions resulting from scrapes with rocks in the aquatic environment and coral are prone to infection.
- Refer to the latest [ARC Guideline for the management of bleeding](#) to learn more.

## Nosebleeds

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A nose injury, changes in altitude and high blood pressure may cause minor internal bleeding from the nose.



## Management

1. Reassure the person.
2. Ask the person to apply equal pressure over the soft part of their nostrils, below the bridge of the nose.
3. Have the person sit up and lean forward to avoid blood flowing down the throat.
4. Have the person rest and remain seated for at least 10 minutes.
5. Inform the person you can help them seek advanced medical assistance if bleeding continues for more than 20 minutes.

### Note

- On a hot day or after exercise, it might be necessary to maintain pressure for at least 20 minutes.
- Refer to the latest [ARC Guideline for the management of bleeding](#) to learn more.



# Major external bleeding



In order to stop major external bleeding as soon as possible:

1. Reassure the person
2. Ask the person to lie down, remain still and apply pressure to their wound if they can
3. Send for help and additional resources (first aid kit and AED)
4. Gain consent to provide (and document) treatment
5. Apply firm direct pressure over the wound or on each side of a protruding object:
  - using the heel of your hands
  - using a sterile dressing held in place by a bandage
6. Check that the pressure is applied directly over the wound or on each side of a protruding object—move your point of pressure if necessary
7. Apply a second bandage over the first one and increase pressure if bleeding continues.
8. Treat for [severe, life-threatening bleeding](#) if uncontrollable.

## Note

- Do NOT remove a protruding object, e.g., stingray barb.
- You may immobilise a bleeding limb to restrict movement, e.g., by using a sling (see [Slings](#)).

- Refer to the latest [ARC Guideline for the management of bleeding](#) to learn more.

## Severe, life-threatening external bleeding

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Severe, life-threatening external bleeding (uncontrolled bleeding) cannot be controlled by smaller, regularly used combine dressings and roller bandages. Unlike minor bleeding from small cuts and abrasions or nosebleeds, severe bleeding can lead to a significant drop in blood pressure, shock and death. Common causes around the water include propeller cuts and shark bites.

### Signs and symptoms

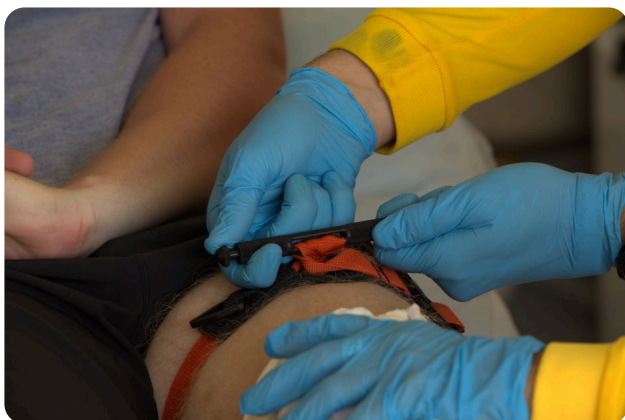
- Amputated or partially amputated limb above wrist or ankle
- Bleeding that cannot be controlled by local pressure
- Decreased level of consciousness or unconsciousness
- Major trauma to any part of the body

### Management

Manage severe, life-threatening external bleeding (uncontrolled bleeding) before checking the airway and breathing when performing a primary assessment (DRSABCD).

### Severe, life-threatening bleeding from a limb

1. Send for help, additional resources (trauma kit with an arterial tourniquet, first aid kit, AED) and request an ambulance.
2. Expose the skin above the bleeding point where possible—you may use shears to cut clothing or wetsuits.
3. Stop uncontrolled bleeding from a limb as soon as possible by applying an arterial tourniquet high and tight as per the manufacturer's instructions, or by using a windlass tourniquet as follows:
  - position the tourniquet:
    - horizontally
    - at least 5 cm above the bleeding point
    - over an intact part of the injured limb
    - over exposed skin where possible
    - not over a joint or wound
    - with the strap on the lateral ('outer') side of the limb
  - pull the tourniquet strap tightly through the buckle so there is no space between the strap and the limb
  - turn the windlass as tightly as is physically possible or until the bleeding stops
  - secure the windlass through the locking loop.
4. Record the time the tourniquet was applied on the tab of its strap (or on the person's head) as well as in an incident report for the paramedics to note.
5. Monitor and reassure the person while waiting for the paramedics.





## ✗ DO NOT

- apply a tourniquet over a joint or a wound
- cover a tourniquet with any bandages or clothing
- remove a tourniquet once it has been applied in the pre-hospital environment.

### Note

- A second tourniquet (if available) should be applied to the limb, preferably above the first, if bleeding continues.
- After applying a tourniquet to control the severe, life-threatening bleeding, commence CPR and apply an AED if the person becomes unconscious and is not breathing normally. Place the person in the recovery (lateral) position if they become unconscious and are breathing normally.
- First responders must not ease the tension or remove a tourniquet after it has been applied.
- First responders qualified in advanced resuscitation may safely administer oxygen to persons showing the signs and symptoms of severe, life-threatening bleeding. Refer to the SLS Pathways website or the appropriate person at your SLS club for more information on advanced resuscitation training.
- Keep the person warm to avoid hypothermia and treat for shock (see Shock).
- Tightening tourniquets on people causes them pain and discomfort.
- Improvised tourniquets of a similar broad width to commercial ones that do not stop all circulation can increase bleeding and risk tissue damage. However, an improvised one is better than none. If you have no tourniquet, you may improvise one from bandages, clothing, a surfboard leg rope or other available items of a similar nature. Any improvised tourniquet should be tightened by twisting a rod or stick under its band, similar to the windlass in commercial tourniquets.
- Refer to the latest [ARC Guideline for the management of bleeding](#) to learn more.





<https://www.youtube.com/embed/NfJlkjbFeeg?rel=0>

## Severe, life-threatening bleeding from a wound site not suitable for a tourniquet

When severe, life-threatening bleeding is not from a limb, treat the injury as major external bleeding with direct pressure.

### Note

- Do not wrap bandages tightly around the chest or abdomen.
- First responders qualified in advanced first aid may apply a haemostatic dressing if one is available.
- First responders qualified in advanced resuscitation may safely administer oxygen to persons showing the signs and symptoms of severe, life-threatening bleeding. Refer to the SLS Pathways website or the appropriate person at your SLS club for more information on advanced resuscitation training.

## Shock

Shock is the term used to describe the loss of effective circulation resulting in impaired oxygen delivery to vital organs and tissues. You should always seek urgent advanced medical assistance for any person

suffering from shock.

## Signs and symptoms

- Anxiety and restlessness
- Breathlessness
- Collapse
- Confusion or agitation
- Extreme discomfort or pain
- Faintness and dizziness
- Feeling cold, shivering or chills
- Nausea
- Pale, cold, clammy skin
- Rapid or shallow breathing
- Reduced level of consciousness
- Signs of bleeding
- Thirst
- Vomiting
- Weakening pulse

## Management

- Ask the person to lie down or place the unconscious person in the recovery (lateral) position.
- Control any bleeding promptly.
- Send for help, additional resources (first aid kit and AED) and request an ambulance.
- Administer treatments relevant to the cause of the shock.
- Maintain the person's body temperature.
- Monitor and reassure the person while waiting for the paramedics.

### Note

- Commence CPR and apply an AED if the person becomes unconscious and is not breathing normally. Place the person in the recovery (lateral) position if they become unconscious and are breathing normally.
- Do NOT give the person anything by mouth (no food or drink).
- First responders qualified in advanced resuscitation may safely administer oxygen to persons showing the signs and symptoms of shock after bleeding. Refer to the SLS Pathways website or the appropriate person at your SLS club for more information on advanced resuscitation training.
- Shock may be caused by a loss of circulating blood volume, cardiac emergencies, abnormal dilatation of blood vessels or a blockage of blood flow in or out of the heart. Each of these causes will require a different treatment. For example, treatment of anaphylaxis is different to the treatment of fractures.

- There are many causes of shock aside from bleeding. Refer to the latest [ARC Guideline for Shock](#) to learn more.

## Allergic Reactions

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Allergy occurs when a person's immune system reacts to substances in the environment that are harmless for most people. These substances are known as allergens and they often trigger airway inflammation and breathing issues.

Remember to gain a person's consent before providing emergency care for allergic reactions and provide treatment within the limits of your training.

## The immune system

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The immune system consists of a complex network of cells, tissues and organs within the human body that protects the body against infection. Some people have immune system disorders that are caused by an overactive or underactive immune system. For example, an overactive immune system may overreact by producing antibodies that attack allergens and cause an allergic reaction.

## Allergies

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The most common causes of allergic reactions in Australia are:

- dust mites
- foods such as eggs, milk, peanuts, sesame, seafood, soy and wheat.
- furry or hairy animals such as cats, dogs, horses, rabbits and guinea pigs
- insect stings from bees, wasps, ticks and ants
- medications
- moulds
- pollen.

### Signs and symptoms

- Abnormal breathing—coughing, wheezing, shallow breathing
- Itchy or running nose
- Rash
- Red skin or hives located to one area of the body
- Tingling in the mouth
- Watery eyes

### Management

1. Ask the person if they have any allergies or if they are anaphylactic.

2. If they are anaphylactic—manage as per treatment for anaphylaxis.
3. If they have allergies—remove any exposure to potential allergens:
  - for food allergy—ask the person to spit the food out and rinse out their mouth if the allergen is still in their mouth
  - for bee allergy—flick out any identified bee sting as quickly as possible by any means.
4. Ask the person if they have any allergy medications that they can take themselves.
5. Reassure the person and advise them to see a medical practitioner if their condition becomes worse or they have been stung on the face.

#### Note

- Remember to ask a conscious person if they have a history of allergies and to reassure them.
- A cold compress can help reduce pain and swelling.
- Refer to the latest [ARC Guideline for the management of Anaphylaxis](#) or [allergyfacts.org.au](http://allergyfacts.org.au) to learn more.

## Anaphylaxis

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Anaphylaxis is a severe allergic reaction that requires immediate management with an adrenaline auto-injector prior to calling an ambulance. It is potentially life threatening as a common symptom is upper airway obstruction, hypotension or bronchospasm.

Anaphylaxis usually occurs within 20 minutes to 2 hours of exposure to an allergen to which a person is already extremely sensitive. You should always treat it as a medical emergency.

### Signs and symptoms

- Abdominal pain and vomiting
- Becoming pale and floppy (in young children)
- Difficult/noisy breathing or persistent cough
- Difficulty talking
- Dizziness, loss of consciousness or collapse
- Hives, welts and body redness
- Itchy or running nose
- Swelling of face, eyes, lips and tongue
- Swelling/tightness in throat
- Watery eyes

### Management

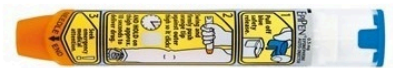
1. Remove any exposure to potential allergens.
2. Lay the person flat or allow them to sit still if breathing is difficult lying down.



3. Administer an adrenaline auto-injector into the person's outer mid-thigh as per the instructions label on the device.
4. Hold the device in place for the time stated on the instructions label of the device.
5. Send for help, additional resources (another adrenaline auto-injector, asthma medication if possible and an AED) and request an ambulance.
6. Monitor and reassure the person while waiting for paramedics to arrive.
7. Administer a second adrenaline auto-injector if there is no response/improvement of the person after 5 minutes and if one is available.



EpiPen® Junior (150 microgram)



EpiPen® (300 microgram)



Anapen® Jr (150 microgram)



Anapen® 300 (300 microgram)



Anapen® 500 (500 microgram)



- Ask them if they have an individual anaphylaxis action plan.
- Follow the instructions of the ambulance service.
- Always administer an adrenaline auto-injector as per the manufacturer's instructions.
- If possible, assist the person to administer their own adrenaline auto-injector before sending for help.
- Commence CPR and apply an AED if the person becomes unconscious and is not breathing normally.

## ✗ DO NOT

- Use an adrenaline auto-injector on infants under 7.5kg unless indicated on their individual anaphylaxis action plan.
- Rub the injection site.

### Note

- When administering a second adrenaline auto-injector (if required), administer to the person's other outer mid-thigh if possible. This will help reduce any pain at the first injection site.
- If the person has asthma and is also at risk of anaphylaxis, the adrenaline auto-injector should be used first, followed by the asthma reliever medication.
- If an adrenaline auto-injector is not available for an anaphylactic person, give asthma reliever medication if the person is conscious.
- An adrenaline auto-injector containing 300 micrograms can be used on a young child (7.5 – 20kg) if an injector with a lower dose is not available.
- An adrenaline auto-injector containing 500 micrograms can be used on a child over 20kg if an injector with a lower dose is not available.
- Expired adrenaline auto-injectors or ones with discoloured adrenaline are not as effective when used for treating anaphylaxis. However, they should be used in preference to not using one at all. Advise the person of any potential issue with an adrenaline auto-injector and gain their consent to use it.
- First responders qualified in advanced resuscitation may safely administer oxygen to persons showing the signs and symptoms of anaphylaxis. Refer to the SLS Pathways website or the appropriate person at your SLS club for more information on advanced resuscitation training.
- Adrenaline auto-injectors contain a synthetic version of adrenaline – epinephrine. Further information regarding these auto-injectors can be accessed via the [ASCIA \(Australian Society of Clinical Immunology and Allergy\) webpage](#) and [Allergy & Anaphylaxis Australia \(A&AA\)](#).
- Refer to the latest [ARC Guideline for the management of Anaphylaxis](#) or [allergyfacts.org.au](http://allergyfacts.org.au) to learn more.

# Brain-related Emergencies

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Brain emergencies relate to illnesses and injuries that occur within the brain. All brain emergencies require urgent advanced medical assistance.

Remember to gain a person's consent before providing emergency care for brain emergencies and provide treatment within the limits of your training.

## Nervous system

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The brain, through the spinal cord and the nerves, controls every part of the body. In particular, the brain sends messages that control the heartbeat, the movement of the muscles of breathing and all other body functions. The brain cells require a continuous supply of oxygen in order to function.

Refer to the [Resuscitation](#) of this manual for more information on the brain, which forms part of the nervous system.

## Stroke

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A stroke occurs when the supply of oxygen-rich blood to a part of the brain is blocked or when bleeding from a blood vessel within the skull occurs.

A stroke should always be treated as a time-critical medical emergency.

### Signs and symptoms

During your secondary assessment, use the FAST acronym to identify a stroke.

F –facial weakness—can the person smile without one side of their face drooping somewhere?

A –arm weakness—can the person raise both arms?

S –speech difficulties—can the person speak clearly or understand what you say?

T –time to act—it's time to send for help and request an ambulance if the person cannot perform these actions.

Other signs and symptoms may include:

- difficulty swallowing
- dizziness, loss of balance
- drowsiness and/or confusion
- nausea or vomiting
- paralysis, numbness, weakness or loss of limb coordination, sometimes on only one side of the body

- severe headache
- slurred speech
- sudden loss of, decrease of or blurred vision
- unequal pupils
- urinary incontinence
- warm, flushed, clammy skin.

## Management

1. Send for help, additional resources (AED) and request an ambulance.
2. Reassure and advise the person to sit or lie down comfortably and rest, taking care that the airway does not become blocked or obstructed.
3. Maintain the person's body temperature.
4. Monitor and reassure the person while waiting for paramedics to arrive.

### Note

- A person may not present all the signs or experience all the symptoms of a stroke. Seek advanced medical assistance if one or more of the signs or symptoms are present.
- Commence CPR and apply an AED if the person becomes unconscious and is not breathing normally.
- Do NOT give the person anything to eat or drink.
- First responders qualified in advanced resuscitation may safely administer oxygen to persons showing the signs and symptoms of stroke. Refer to the SLS Pathways website or the appropriate person at your SLS club for more information on advanced resuscitation training.
- Place the person in the recovery (lateral) position if they become unconscious and are breathing normally.
- Refer to the latest [ARC Guideline for Stroke](#) to learn more.



# Head Injury



Both members of the public and SLS members on patrol, or competing in surf sports, have the potential to suffer a knock to the head and possible concussion – a form of traumatic brain injury.

A head injury should be suspected with any witnessed or reported knock to the head, as well as when signs and symptoms of a head injury are present.

## Signs and symptoms

Signs and symptoms of a head injury may show immediately or may evolve over the hours or days following an incident. They may be obvious or more subtle. They include:

- altered state of consciousness
- appearing in a daze, blank/vacant stare
- bleeding from the head or face, or into the eyes
- bruises on the head or face
- confusion
- disorientation
- fluid discharge from ears, nose or mouth
- headache
- impaired vision, hearing or speech

- memory impairment
- nausea or vomiting
- neck pain
- notable changes in behaviour
- numbness or tingling in arms or legs
- seizure.

## Management

1. Ask the person to lie down with their head and shoulders slightly raised.
2. Identify and control any bleeding with direct pressure if possible.
3. Provide spinal care using a trapezius grip to protect the person's neck while maintaining the person's clear airway for an appropriate period of observation.
4. Determine what advanced medical assistance is required:
  - send for help and request an ambulance if any of the following red flags are identified:
    - a deteriorating state of consciousness at any time, no matter how brief
    - an unusual behavioural change
    - disturbed hearing or vision
    - increasing levels of headache, confusion or agitation
    - neck pain
    - repeated vomiting
    - seizure
    - weakness, tingling or burning feeling in the arms or legs.
  - Refer the person to a medical practitioner as soon as possible for further assessment in all other cases.



### Note

- A period of observation is recommended following the provision of emergency care. If, after an

appropriate period of observation, the person has not shown any of the red flags noted above, it is reasonable to discharge the person from your care.

- Anyone with suspected head injuries should not resume any activity until cleared for participation by a medical practitioner.
- Any athlete participating in SLS surf sports with a suspected head injury is not allowed to return to sport that day and the sport's referee needs to be informed of this decision. Refer to the Safety and Wellbeing module of this manual for more information on personal injury reporting.
- Any blood or fluid coming from the ear should be treated by securing a sterile dressing lightly over the ear and laying the person on their injured side where possible. This helps the fluid to drain out.
- Do NOT prevent fluid discharge from ears or nose.
- Refer to the [Spinal Management module](#) of this manual for more detail on spinal care and how to perform a trapezius grip.
- The possibility of spinal injury must be considered with any head injury (e.g., concussion, structural head injury).
- Refer to the latest [ARC Guideline for Head Injury](#) to learn more.

## Temperature-related Emergencies

---

Prolonged exposure to hot and cold environments can lead to a range of temperature-related illnesses that can progress into temperature-related emergencies.

Remember to gain a person's consent before providing first aid for temperature-related emergencies and provide treatment within the limits of your training.

## Integumentary system

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The integumentary system consists of the skin, nerves, hair, nails and sweat glands, which work together to protect the body from the outside world and maintain the right balance of internal body conditions for healthy functioning. One of the system's key functions is to maintain and regulate body temperature. It may do this by changing the pattern of blood supply to the skin or by sweating. Body systems and organs progressively fail as the body's temperature rises above or falls below the normal body temperature of about 37° C.

## Sunburn

---

Sunburn is damage to the skin caused by ultraviolet radiation. Sunburns can range from mild to blistering.

### Signs and symptoms

- Blistering
- Dehydration
- Headache

- Fever
- Pain
- Redness
- Vomiting

## Management

1. Rest the person in a cool place.
2. Cool the sunburn with running water for up to 20 minutes.
3. Give the person fluids by mouth.

### Note

- Do NOT prick or pop blisters.
- Seek a medical practitioner if sunburn is extensive, especially if the person is has blisters, is vomiting, is dehydrated, has severe headache or is a child.
- There are many other types of burns aside from radiation burns. Refer to the latest [ARC Guideline for Burns](#) to learn more.

## Note for lifesavers on patrol

SLS members should refer to the [SLSA Environmental Factors Guidelines](#) in the SLS Members Area Document Library for guidance on how to avoid sunburn while on patrol. More information on sun safety can also be found within the Safety and wellbeing platform.

# Hypothermia

Hypothermia occurs when the deep body (core) temperature falls below 35° C. The body can pass through various stages when suffering from hypothermia, ranging from mild to life-threatening. Infants and the elderly are at a greater risk of hypothermia.

## Signs and symptoms

The following table outlines the signs of hypothermia.

Sign	Mild	Moderate	Severe and life-threatening
Temperature	32–35° C	30–32° C	< 30° C
Shivering	Vigorous	Reducing in intensity	None
Skin	Pale and cool	Pale and cool	Pale, blue and cold
Level of consciousness	Apathetic, slurred speech	Semi-conscious	Unconscious
Breathing	Normal	Slow	Not able to be detected
Pulse	Slow	Slow, irregular	Not able to be detected
Other	Confusion Uncoordinated Slurred speech	Increased muscle rigidity	Stopped shivering May appear dead Fixed dilated pupils

Table 5—Signs and symptoms of hypothermia



## Management

1. Send for help and additional resources (warm blankets and drinks, AED).
2. Monitor their condition while warming the person:
  - place the person in a warm, wind-protected environment—on an insulating blanket or towel if available
  - remove wet clothing when the warm blanket arrives and dry the person
  - wrap the person's body, head and neck (not the face) in a dry emergency thermal blanket or dry towel
  - encourage the person to curl up into a ball to maintain heat and prevent heat loss
  - give them sips of warm sweet drinks when conscious—not alcohol, caffeine or energy drinks
  - apply external heat source—body-to-body warmth or heat packs to the sides of the neck, the armpits and the groin, where large arteries are close to the surface
  - if their condition deteriorates, request an ambulance for severe and life-threatening hypothermia.

### ✗ DO NOT

- rub or massage the person's limbs
- remove wet clothing if there is no dry blanket or other suitable cover
- permit a conscious person showing signs of severe and life-threatening hypothermia to have sips of warm drinks or take a warm bath or shower.

### Note

- You may permit a conscious person with mild hypothermia ('feeling cold') to have a warm shower under supervision and advise them to inform you if they begin to feel dizzy. Showers have the added risk of 're-warming collapse' because of low blood pressure.
- Refer to the latest [ARC Guideline for Hypothermia](#) to learn more.

### Note for lifesavers on patrol

Lifesavers are often required to spend extended periods of time in cold-weather conditions.

Plan ahead for the cold and avoid experiencing hypothermia by:

- wearing warm protective clothing when on patrol
- wearing a wetsuit when in cold water
- leaving the water when you feel cold or start to shiver
- curling into a ball to help prevent heat loss if unable to leave the water (remember the mnemonic 'HELP' (Heat Escape Lessening Posture)).

# Heat exhaustion

---

Heat exhaustion is a heat-induced illness that occurs when a person's body temperature elevates after experiencing prolonged exposure to excessive or unaccustomed heat. It is a moderate form of hyperthermia.

## Signs and symptoms

- Cramps or muscle weakness
- Dehydration
- Dizziness
- Elevated body temperature
- Fatigue
- Headaches
- Heavy sweating
- Nausea or vomiting
- Pale skin
- Potential collapse
- Thirst

## Management

1. Lay the person down in a cool, shaded and protected environment.
2. Loosen and remove excess clothing.
3. Cool the person quickly with a combination of the following cooling methods:
  - apply wrapped cold packs or ice to the groin, armpits, facial cheeks, palms and soles
  - gently fan them
  - give a sip of cool water or a commercial sports drink slowly when conscious
  - moisten the skin with a cool damp cloth or gently spray the person with water.
4. Monitor the person's condition and reassure them.

### Note

- Send for help and request an ambulance if the person's condition does not improve quickly or deteriorates.
- Do NOT give fluids by mouth if the person is unconscious and breathing normally.
- Do NOT give the person any paracetamol used to reduce fever.
- Refer to the latest [ARC Guideline for Heat Induced Illness](#) to learn more.

# Heat stroke

---

Heat stroke is a life-threatening heat-induced illness that occurs when the core body temperature rises above 40° C after prolonged exposure to excessive or unaccustomed heat. It is a severe form of hyperthermia.

## Signs and symptoms

- Collapse
- Dehydration
- Elevated body temperature above 40° C
- Hot dry skin
- Intense thirst
- Lack of sweating
- Altered state of consciousness

## Management

1. Primary assessment (follow DRSABCD):
  - send for help, additional resources (cold packs, AED) and request an ambulance
  - provide CPR if required
  - apply an AED and follow its prompts if the person is unconscious and not breathing normally.
2. While waiting for the ambulance to arrive for individuals **over 5 years of age**:
  - Immerse (i.e., whole-body from the neck down) in cold water (a bath if possible, as cold as possible) for 15 minutes. This is the most effective method of cooling. If this is not available, a combination of the following methods should be used:
  - Wet the person with cold or cool water, under a shower if safe, or with a hose or other water source
  - Apply ice packs (groin, armpits, facial cheeks, palms and soles).
  - Repeatedly moisten the skin with a moist cloth or atomizer spray.
  - Fan continuously.
  - While waiting for the ambulance to arrive **for children 5 years of age and under** a combination of the following methods should be used:
    - Cool in a tepid (lukewarm) bath sponging frequently for 10 minutes. If bath available:
    - Repeatedly moisten the skin with a moist cloth or atomizer spray
    - Fan continuously
3. Monitor the person's condition and reassure them while waiting for paramedics to arrive.

## Note

- Rapidly cool the person as per heat exhaustion treatment if cold water immersion not possible.
- Do NOT give fluids by mouth if the person is unconscious and breathing normally.
- Do NOT give the person any paracetamol used to reduce fever.
- Refer to the latest [ARC Guideline for Heat Induced Illness](#) to learn more.

### Note for lifesavers on patrol

Lifesavers are often required to spend extended periods of time in hot-weather conditions.

Plan ahead for the heat and avoid experiencing heat exhaustion or hyperthermia by:

- following the sun safety guidelines within the [SLSA Environmental Factors Guidelines](#)
- regularly drinking water to stay hydrated
- staying in well-ventilated areas
- wearing a hat while outdoors
- wearing light coloured and loose-fitting clothing, e.g., your patrol uniform
- staying in the shade where possible.

## Musculoskeletal Injuries

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Musculoskeletal injuries relate to the bones, muscles, tendons, ligaments and joints. The most common musculoskeletal system injuries seen on the beach are fractures (bones), sprains (ligaments), strains (muscles and tendons) and dislocations (joints).

Remember to gain a person's consent before providing first aid for musculoskeletal injuries and provide treatment within the limits of your training.

## Musculoskeletal system

---

The musculoskeletal system consists of a rigid framework of bones, called the skeleton, which supports the rest of the body and provides protection for important organs. The bones are connected by a series of joints where movement occurs, for example the shoulder, hip, knee and elbow joints. Joints are held in place by fibrous bands called ligaments. Muscles are attached to the bones at various points by tendons. Contraction and relaxation of the muscles allows movement of the bones so that the body can move and breathe.

The skeleton consists of:

- the skull, to which the lower jaw is attached—the skull encloses and protects the brain
- the spine or vertebral column—encloses and protects the spinal cord
- the rib cage, which protects the lungs and heart
- the upper limb bones
- the pelvis and lower limb bones.



# Fractures

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A fracture is a break or a crack in a bone that has the potential to cause shock and serious injury to internal body structures.

Fractures can be classified as either:

- open—the bone pierces the skin and soft tissue when it breaks and can be seen through the skin. Alternatively, an open fracture may be caused by an object penetrating the skin and fracturing a bone
- closed\*—\*the bone does not pierce the skin and cannot be seen.

## Signs and symptoms

- Bone/s protruding from an open, bleeding wound
- Deformity—the affected part has changed in shape
- Feeling/sound of bone ends grating or the sound of a snap or pop at the time of injury
- Loss of function
- Pain and tenderness at the site
- Signs and symptoms of shock (see Shock)
- Swelling at the site, resulting from internal bleeding
- Tingling or numbness
- Unnatural movement—the affected part can be moved too freely

## Management

The precise treatment of a fracture depends on the location of the injury. However, these steps for an injured limb apply to most fractures.

1. Reassure the person.
2. Advise the person not to move and to support their injury in a position of least pain.
3. Send for help, additional resources (first aid kit) and request an ambulance.
4. Gain consent to provide (and document) treatment.
5. Immobilise the injured limb in the position you found it in.
6. Check for circulation to their limb—press on the nearest fingernail/toenail to see if the blood circulation returns after applying pressure.
7. Monitor and reassure the person where they fell or injured themselves if possible and safe to do so while waiting for the paramedics to arrive.

### Note

- A lifesaver qualified in providing pain management may also administer methoxyflurane for pain relief.

- If the fracture is open, apply a clean dressing to the wound where appropriate and treat for shock (see Shock).
- Treat for shock (see Shock).
- When moving the person is required, first immobilise the area above and below the fracture.

# Sprains and strains

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## Sprains

Sprains are caused when the ligaments that hold bones together are forced beyond their normal range, leading to stretching or tearing. Sprains are more significant injuries than strains and may result in permanent damage if not managed properly.

## Strains

A strain is a simple soft tissue injury affecting muscle, usually caused by overstretching. Strains will usually heal by themselves, although there may be complications if tendons (which attach muscle to bone) are involved.

## Signs and symptoms

- Loss of power or ability to bear weight
- Pain and tenderness at the site
- Possible discoloration
- Swelling

## Management

The RICER and no HARM approach to soft tissue injuries aims to minimise bleeding, swelling and further tissue damage. Remember to provide reassurance and gain the person's consent to provide emergency care before taking the RICER and no HARM approach.

## R-I-C-E-R

### R – rest

- Reassure the person and advise them to sit or lie down, then not to move while supporting their injury in a position of least pain.

### I – ice

- Apply cold packs or ice wrapped in a damp cloth to the site of the injury.
- A cold compress may be used at irregular intervals for periods of 5–15 minutes to reduce pain and swelling.

### C – compression

- Wrap a compression bandage around the injured area to reduce movement and swelling at the site of injury.
- Check that circulation is present beyond the bandage to ensure it is not too tight – press on the nearest fingernail/toenail to see if the blood circulation returns after applying pressure.
- Also check the colour, warmth, movement and sensation in the area above and below the compression bandage.

#### **E – elevation**

- Elevate the limb to reduce swelling, bleeding and blood flow to the area. This will also help relieve pain.

#### **R – referral**

- Refer the person to a medical practitioner for definitive diagnosis and continuing management.

### **H-A-R-M**

In the first 2–3 days, it is important that the person does not do any HARM to their injury.

#### **H – heat**

- Avoid any type of heat that will increase blood supply to the area and, consequently, will increase bleeding.
- Avoid hot showers and baths, saunas.
- Avoid using hot water bottles or heat rubs.

#### **A – alcohol**

- Avoid consuming alcohol as this may increase swelling.

#### **R – running**

- Avoid exercising the area too soon as this may aggravate and worsen the injury.

#### **M – massage**

- Avoid any form of massage, as this will increase swelling and bleeding.

## **Dislocations**

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A dislocation is an injury in which a bone is moved out of its normal position in a joint. The most common examples of this are in the finger and the shoulder joints. Dislocations may also be associated with fractures of nearby bones.

## Signs and symptoms

- Bruising or discoloration of the skin
- Deformity
- Loss of joint function—abnormal or no mobility
- Pain and tenderness
- Swelling

## Management

1. Reassure the person.
2. Advise the person not to move and to support their injury in a position of least pain.
3. Send for help and additional resources (first aid kit).
4. Gain consent to provide (and document) treatment.
5. Immobilise the injured limb in the position you found it in.
6. Determine if an ambulance is required:
  - press on the nearest fingernail/toenail to see if the blood circulation returns after applying pressure. Request an ambulance if there are signs of decreased circulation
  - request an ambulance if the dislocation involves a major joint, e.g., shoulder or kneecap.
7. Monitor and reassure the person where they fell or injured themselves if possible and safe to do so.
8. Refer the person to a medical practitioner or continue to reassure the person while waiting for an ambulance to arrive.

## ✗ DO NOT

- attempt to reposition the dislocated joint or put a bone back in place
- give the person anything to eat or drink (nil by mouth)
- move the person until the joint has been immobilised, if safe to do so
- test the function of a suspected dislocation.

### Note

- Absence of circulation constitutes a medical emergency. You should send for help and request an ambulance immediately.
- If possible, apply ice packs (covered by a towel or clothing) or cold compresses at irregular intervals over the site of injury for periods of 5–15 minutes to reduce pain and swelling.
- Treat for shock where appropriate (see Shock).
- A first responder qualified in providing pain management may also administer methoxyflurane for pain relief.



# Immobilisation—slings

The following information explains how to apply slings using a triangular bandage. There are several types of slings.

Sling type	Elevated sling (upper arm sling)	Large arm sling (lower arm sling)
Best used for	Arm injuries above the elbow	Arm injuries below the elbow
Example(s)	Fractured collarbone, a suspected shoulder dislocation or a fractured upper arm	Broken forearm

**Table 6 – Different sling types**

## Note

Do NOT continue to use a sling when the person feels that their arm is better supported and less painful in another position.

## Elevated sling

The aim of elevated slings (upper arm slings) is to immobilise and support injured upper limbs and shoulders. They are best used for arm injuries above the elbow, e.g., a fractured collarbone, a suspected shoulder dislocation, or a fractured upper arm.

Follow these steps to apply an elevated sling:

1. point an open triangle bandage's apex towards the injured arm
2. drape the triangle bandage over the injured arm. Have its apex beyond the elbow and its upper end over the person's non-injured shoulder
3. ease the bandage under the person's hand, then forearm and elbow
4. take the lower end of the bandage diagonally up across the person's back
5. twist the bandage's apex until it supports the elbow before securing it in place
6. tie the ends of the bandage with a reef knot, close to the hollow of the person's neck on their non-injured side
7. check the sling is applied firmly for support yet not too tight to restrict circulation.



## Large arm sling

The aim of large arm slings (lower arm slings) is to immobilise and support an injured upper limb. They are best used for arm injuries below the elbow, e.g., a broken forearm.

Follow these steps to apply a large arm sling:

1. point an open triangle bandage's apex towards the injured arm
2. place the triangle bandage between the injured arm and the person's chest. Have its apex level with the elbow and its upper end on the person's non-injured shoulder
3. bring the lower end of the bandage over the injured arm and place it on the injured arm's shoulder
4. tie the ends of the bandage using a reef knot into the hollow of the person's neck on their non-injured side
5. fold and secure the triangle bandage's apex while making sure the hand is fully supported

6. check the sling is applied firmly for support yet not too tight to restrict circulation.



## Venomous Bites and Stings

Venomous bites and stings affect the lymphatic system, which is closely connected to the circulatory system. Venom is known to cause blood clotting and may cause damage to the nervous system. Bites and stings are also known to cause infection and bites may spread diseases.

Remember to gain a person's consent before providing first aid for venomous bites stings, and to provide treatment within the limits of your training.



# Lymphatic system

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The lymphatic system returns water and proteins from various tissues back to the bloodstream and produces lymphocytes, which make antibodies to defend the body against invasion by agents such as viruses, bacteria, or fungi. It also collects some venoms and toxins that it will return over time to the circulation system.

Lymph nodes are usually found in groups in different places throughout the body, including the neck, armpit, chest, abdomen, pelvis and groin. They often swell when the lymphatic system is protecting the body.

The lymphatic system mainly relies on body movement and contraction of nearby muscles to move its contents (including some venoms and toxins) along, as it does not have a pump like the circulatory system. Lymph vessels, like veins, have one-way valves so that lymph can flow in only one direction.

# Bites and stings

---

## Signs and symptoms

Some bites, stings and penetrating injuries from various creatures may show signs of bleeding or result in irritation or pain at the site of injection. Refer to the [Venomous sea creatures](#) section of this module for a list of signs and symptoms specific to the most commonly encountered venomous sea creatures at Australian beaches.

## Management

There are four main treatments for venomous bites and stings by either sea- or land-based creatures which are outlined below.

Refer to the [Venomous sea creatures](#) section of this module to note which treatment is used for which marine creature.

- [Heat](#)
- [Cold](#)
- [Vinegar](#)
- [Pressure immobilisation technique](#)

For all venomous bites and stings, you should monitor the person for signs of an allergic reaction as well as refer them to a hospital if the bite or sting is to their face or tongue, or if they present the signs and symptoms of anaphylaxis.

# Heat

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Heat reduces pain in the majority of injuries by penetrating spines as well as non-tropical jellyfish stings. It does not destroy any venom already injected.

1. Ask the person to rest while providing reassurance.
2. Gain consent to provide (and document) treatment.
3. Manage any signs the venomous creature:
  - non-tropical jellyfish—pick off any tentacles with gloved fingertips and rinse the sting area well with seawater to remove invisible nematocysts (stinging capsules)
  - stingray barb—control any bleeding
  - protruding sea urchin spine—remove the spine with tweezers.
4. Turn on a hot water shower or tap and make the temperature as hot as the person can comfortably tolerate.
5. Place the person's stung area in the hot water for 20 minutes and ask the person to rate their pain level from 'no pain' (0) to 'worst pain possible' (10).
6. Reassess the person's level of pain by asking them to rate it again.
7. Send for help if heat fails to relieve the person's pain, or if unable to manage other symptoms.

#### Note

1. Do NOT remove any embedded objects, e.g., stingray barbs, sea urchin spines or stonefish spines. These need to be removed by a medical practitioner in a hospital setting to reduce further injury and prevent infection.
2. Do NOT allow rubbing of the stung area.
3. If local pain is unrelieved by heat, or if hot water is not available, apply a wrapped cold pack or ice.
4. If possible, top up with more hot water as necessary, testing the temperature each time.
5. Send for help and request an ambulance if:
  - pain persists or is generalised (felt over a wide area)
  - the sting area is large (half of a limb or more)
  - the sting involves sensitive areas, e.g., the eye.

# Cold

---



Cold is a basic pain management technique for local skin pain.

1. Ask the person to rest while providing reassurance.
2. Gain consent to provide (and document) treatment.
3. Manage any signs of the venomous creature:
  - non-tropical jellyfish—pick off any jellyfish tentacles with your gloved fingertips then rinse the sting area well with seawater to remove invisible nematocysts (stinging capsules)
  - bees—remove any bee stings.
4. Apply a wrapped cold pack or ice to the sting site for 10–20 minutes and ask the person to rate their pain level from 'no pain' (0) to 'worst pain possible' (10).
5. Reassess the person's level of pain by asking them to rate it again.
6. Reapply wrapped ice or cold pack if necessary.
7. Send for help if cold fails to relieve the person's pain, or if unable to manage other symptoms.

## Note

- A cold compress may be used at irregular intervals for periods of 5–15 minutes to reduce pain.
- Remember the [Wong–Baker FACES®](#) pain rating scale may be used with young children, adults with a disability or adults from non-English speaking backgrounds to help communicate changing pain levels over time.
- Cold treatment may also be used to relieve pain from most spider and insect bites.

## When heat and cold is not available

If hot water is not available, or if there are not enough cold packs or ice stores available, do NOT use any other unauthorised treatments—they may cause further stinging or harm the person.

1. Make the person comfortable and provide reassurance.
2. Spray seawater on the area of the sting, using a fine spray.
3. Repeat this as often as necessary, constantly monitoring and reassuring the person.

## Vinegar

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Vinegar is included in the treatment for all unknown jellyfish stings that occur in tropical Australia. This is to prevent further stinging from tentacles that may remain on the skin after a box jellyfish sting and to prevent further discharge of stinging cells after an Irukandji sting.

1. Send for help, additional resources (vinegar, cold packs or ice and an AED) and request an ambulance.
2. Ask the person to rest while providing reassurance.
3. Gain consent to provide (and document) treatment.
4. Manage any signs of the venomous creature. For tropical jellyfish—apply vinegar over the jellyfish tentacles then pick off any remaining tentacles with your gloved fingertips.
5. Monitor and reassure the person while waiting for paramedics to arrive.
6. Manage the person's pain levels (see [Pain management](#)).

## Note

- If vinegar is not available, pick off any jellyfish tentacles with your gloved fingertips then rinse the sting well with seawater.
- Do NOT apply fresh water onto the sting as this may cause the discharge of undischarged nematocysts—pay close attention to any water from ice or cold packs.
- Vinegar does not provide pain relief from venom already injected.
- Vinegar may cause nematocyst discharge of some other jellyfish, including bluebottles, so it is recommended only for tropical areas where box jellyfish and Irukandji stings occur.
- Vinegar needs to be kept only in tropical Australian surf lifesaving clubs for use on box jellyfish stings, Irukandji stings and unknown tropical jellyfish stings.

# Pressure immobilisation technique

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The pressure immobilization technique (PIT) is used to slow the movement of poisonous venom from animal bites and stings through the lymphatic system.

In PIT, bandaging compresses veins and lymphatic vessels in the area of a bite, reducing absorption of venom from the area and thus delaying the onset of symptoms. It does not stop arterial blood flow (i.e., delivery of oxygen) to the area.

## Animals

PIT is recommended for application to bites/stings by the following four creatures only:

1. blue-ringed octopus
2. cone shell
3. funnel-web spider
4. venomous snakes, including sea snakes.

## Application

1. Send for help, additional resources (first aid kit and AED) and request an ambulance.
2. Ask the person to rest while providing reassurance.
3. Gain consent to provide (and document) treatment.
4. Firmly apply a broad pressure bandage directly over the bite site as soon as possible.
5. Apply a second bandage that starts at the fingers or toes of the limb and continues towards the body while covering as much of the limb as possible.
6. Check the bandages are applied firmly yet not so tight as to restrict circulation.
7. Mark the outer bandage with an X over the bite site.
8. Immobilise the limb.



9. Advise the person to rest and keep still.
10. Monitor the person's condition and reassure them while waiting for paramedics to arrive



### Note

- Bring transport to the person if possible.
- Do NOT wash the bitten area or remove the bandage.
- Do NOT apply a tourniquet to apply pressure.

## Venomous sea creatures

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The venomous sea creatures in this section are listed in alphabetical order. Refer to the Bites and stings section of this module for more detailed information about their treatment (heat, cold, vinegar and PIT).

You may also refer to the latest [ARC Guidelines for Envenomation](#) to learn more.

## **Bluebottle (*Physalia physalis*)**



### **Distribution**

Australia-wide and in most warm oceans worldwide

### **Seasonal note**

Frequently present in the summer months on the eastern coast of Australia, and during autumn and winter in southern Western Australia.

### **Signs and symptoms**

- Pain and burning sensation
- Single raised white welt with a prominent 'beading' effect
- Occasionally, pain on breathing, back pain, sweating, anxiety and nausea may develop

### **Management**

- [Heat](#)



## Blue-ringed octopus (genus *Hapalochlaena*)



### Distribution

Widespread around Australia

### Signs and symptoms

- Numbness of lips and tongue
- Conscious and able to hear although fully paralysed and unable to breathe without assistance
- Progressive weakness of the muscles leading to breathing difficulties and potentially respiratory failure as a result
- Visible but painless bite

### Management

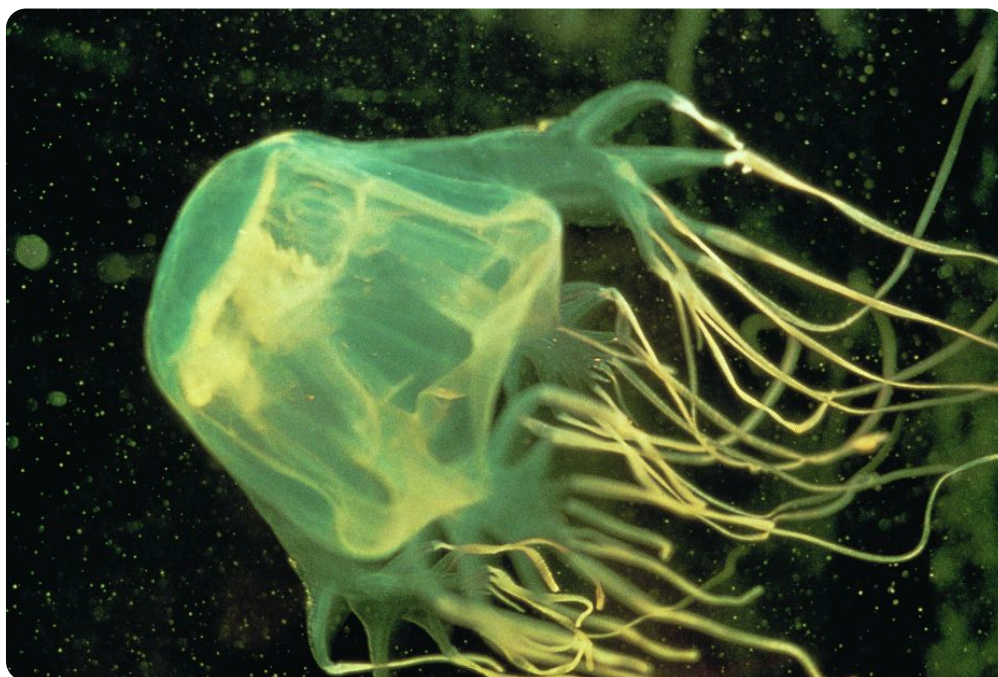
1. Primary assessment (follow DRSABCD):
2. Send for help, additional resources (first aid kit and AED) and request an ambulance
3. Provide CPR
4. Apply an AED and follow its prompts if the person is unconscious and not breathing normally.
5. [Pressure immobilisation technique](#) (PIT)

### Note

- An adult's body is around 5 cm long with arms up to 10 cm.
- Blue-ringed octopuses present their iridescent blue markings when they are agitated or hunting.
- Collectively there are around 10 species known as blue-ringed octopuses.
- They are commonly found in shallow reefs and tide pools.

- Spontaneous breathing can return after 2–13 hours of external ventilation support.

## Box jellyfish (*Chironex fleckeri*)



### Distribution

Tropical Australian waters

### Seasonal note

Stinger peak season is October to May

### Signs and symptoms

- Adherent tentacles often still present, especially if severely stung
- Instant and severe burning skin pain, with what look like whip or burn marks on the skin
- Person may rapidly lose consciousness and stop breathing

### Management

1. Primary assessment (follow DRSABCD):
2. Send for help, additional resources (vinegar and AED) and request an ambulance
3. Provide CPR
4. Apply an AED and follow its prompts if the person is unconscious and not breathing normally.
5. [Vinegar](#)



## Cone shell (genus *Conus*)



### Distribution

Tropical Australian waters

### Signs and symptoms

- Disturbed vision, speech and hearing
- Numbness of lips and tongue
- Pain, swelling or a spot of blood at the bite
- Progressive weakness of the muscles leading to breathing difficulties and potentially respiratory failure as a result

### Management

1. Primary assessment (follow DRSABCD):
2. Send for help, additional resources (first aid kit and AED) and request an ambulance
3. Provide CPR
4. Apply an AED and follow its prompts if the person is unconscious and not breathing normally.
5. [Pressure immobilisation technique](#) (PIT)

## Note

- Signs and symptoms may begin within minutes or take days to appear.
- Cone shells are usually found within tropical coral reefs and associated with sandy bottoms and inter-tidal environments.

## Fire jelly (*Morbakka fenneri*)



## Distribution

Northern Australian waters; reaches as far south as Sydney at times

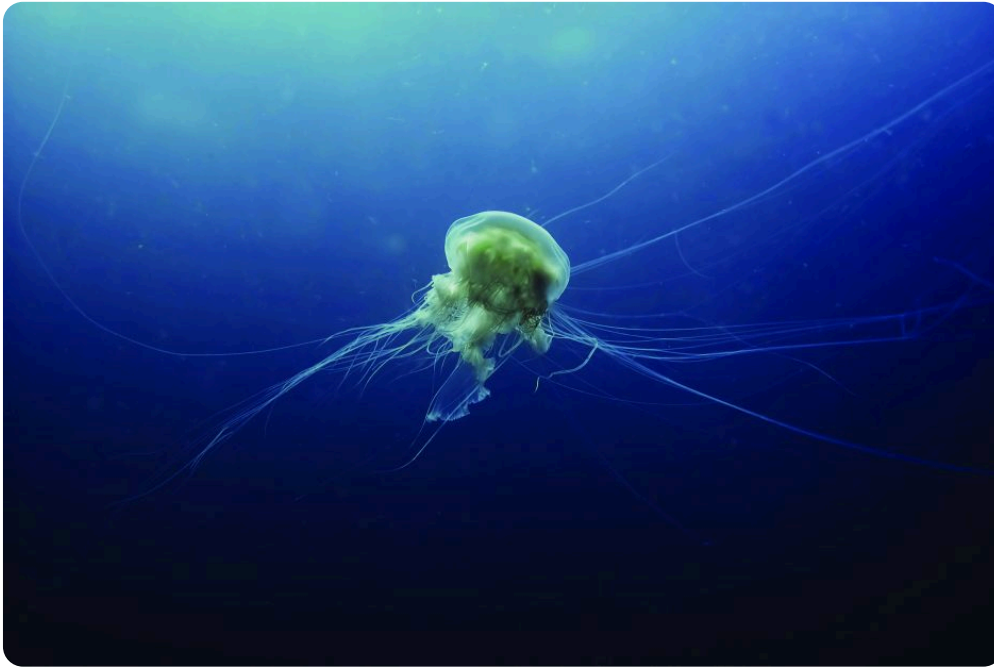
## Signs and symptoms

- Burning, itchy pain at sting site
- Wide, raised pink welts surrounded by red skin flare
- Occasionally Irukandji-type symptoms may arise

## Management

- [Vinegar](#)

## Hair jellyfish (*Cyanea barkeri*)



### Distribution

Worldwide

### Signs and symptoms

- Minor skin pain, although may sometimes be more severe
- Red zigzagged lines or irregular raised white welts surrounded by red flare

### Management

- [Cold](#)

## Irukandji (*Carukia barnesi*)



### Distribution

Tropical Australian waters

### Seasonal note

Stinger peak season is October to May

### Signs and symptoms

- Initial minor sting that may show goose pimples, localised sweating or itching feeling
- After a delay of 5–40 minutes (usually 25–30 minutes), the person may experience
  - anxiety
  - backache
  - headache
  - muscle cramps
  - nausea
  - sometimes a red rash around the affected area

### Management

1. Primary assessment (follow DRSABCD):
2. Send for help, additional resources (vinegar and AED) and request an ambulance
3. Provide CPR
4. Apply an AED and follow its prompts if the person is unconscious and not breathing normally
5. [Vinegar](#)



## Jelly blubber (*Catostylus mosaicus*)



### Distribution

Intertidal estuaries and coastal waters in Queensland, New South Wales and Victoria

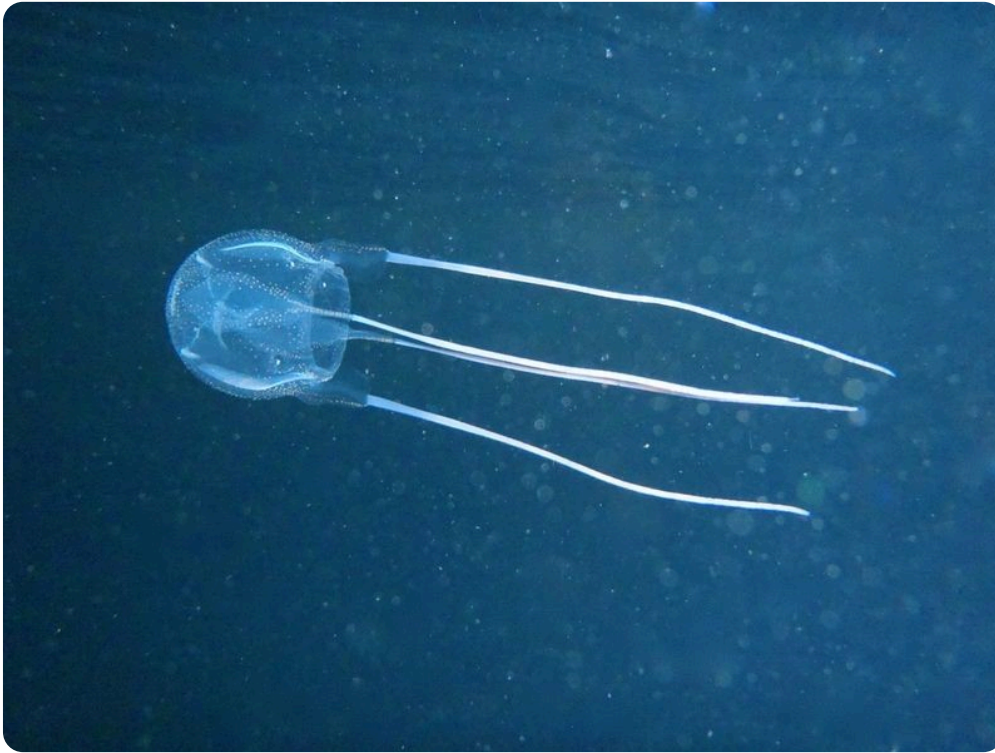
### Signs and symptoms

- Minor skin irritation only

### Management

- [Cold](#)

## Jimble (*Carybdea rastoni*)



### Distribution

Coastal waters, estuaries and oceans near Western Australia to Southern Queensland

### Signs and symptoms

- Thin, raised white welts surrounded by bright red flare
- The welts are itchy, but there is usually little skin pain
- Occasionally there may be local skin pain

### Management

- [Cold](#)

## Sea snake (family Hydrophiidae)



### Distribution

Mainly tropical Australian waters

### Signs and symptoms

A relatively painless bite, possibly followed by drowsiness, vomiting, visual disturbances, weakness, muscle pain, breathing difficulties



## Management

1. Primary assessment (follow DRSABCD):
2. Send for help, additional resources (first aid kit and AED) and request an ambulance
3. Provide CPR
4. Apply an AED and follow its prompts if the person is unconscious and not breathing normally.
5. [Pressure immobilisation technique](#) (PIT)

## Note

Venom is not always injected when sea snakes bite, therefore symptoms may not develop.

## Sea urchin (class Echinoidea)



## Distribution

All oceans

## Signs and symptoms

- Painful puncture wound
- Spines broken off in wound

## Management

- [Heat](#)
- Remove protruding spine with tweezers.
- Refer to medical practitioner if spines under skin.



## Stingray (family Dasyatidae)



### Distribution

All oceans

### Signs and symptoms

- Bleeding
- Cuts or a penetrating injury—the barb may break off and remain in the wound
- Severe local pain from puncture wound, which may get worse with time

### Management

- [Heat](#)
- Send for help, additional resources (first aid kit, hot water and AED) and request an ambulance.

### Note

- Treat for bleeding with a protruding object if required.
- The barb is removed surgically and a tetanus shot given by medical practitioners in a hospital setting.

## Stonefish (including bullrout) (genus *Synanceja*)



### Distribution

- Tropical Australian seawater (stonefish)
- Fresh water (bullrout)

### Signs and symptoms

- Grey/blue discoloration on skin
- Immediate severe localised pain
- Irrational behaviour or panic may occur

### Management

- [Heat](#)

## Venomous land creatures

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Other venomous creatures can be found on Australian beaches or within your SLS club. Some bites, stings and penetrating injuries from venomous land creatures may show signs of bleeding or result in irritation or pain at the site of injection. Bites and stings from these creatures can be treated using some of the same management techniques outlined in this module.

The pressure immobilisation technique (PIT) may also be used to treat bites from Australian venomous snakes and funnel web spiders.

Cold treatment should be used to manage pain for most other Australian spider bites, tick bites and venomous stings, e.g., from bees, wasps, ants, scorpions or centipedes.

Call the Poisons Information Centre at anytime from anywhere in Australia on 13 11 26 for advice on how to provide first aid for a variety of other venomous land creatures.





# Module 7 – Reflective Questions

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Now that you have completed this module, read through the following reflection questions. If you find yourself answering 'no' or 'not sure' to any of them, you may wish to go back and review the relevant content or speak with your trainer for clarification.

1. Are you confident in your ability to recognise the signs and symptoms of a range of first aid emergencies?
2. Are you confident in your ability to treat a range of first aid emergencies?
3. Do you know what first aid equipment is available for your use in your club's [first aid kit](#) and what the different pieces of equipment are used for?
4. Are you confident in your ability to perform and record the results of a verbal and visual [secondary assessment](#)?
5. Would you know what treatments to prioritise and when to [call an ambulance](#) or [refer to a medical practitioner](#)?

# Module 8 – Communication

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- [Communication](#)
- [Public Image](#)
- [Verbal communication](#)
- [Non-verbal communication](#)
- [Graphic communication](#)
- [Selecting an appropriate communication tool](#)
- [Social media](#)
- [Building relationships](#)
- [Communicating with an agitated person](#)
- [Routine communications for lifesavers](#)
- [Module 8 – Reflective Questions](#)

## Communication

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Communication is used to send and receive messages in a variety of forms. Effective communication means giving and receiving information in a way that is clear and easily understood by both the communicator and the receiver.

As SLSA is an organisation that provides expert advice and service to the public and other organisations, it is essential that lifesavers use effective communication methods when:

- clarifying details, roles and responsibilities
- completing documentation
- communicating with an agitated person
- educating and informing other SLS members
- informing members of the public about hazards and safety
- learning new procedures
- offering assistance
- performing rescues, alone or in a team
- providing feedback
- resolving conflicts
- working as a member of a team
- working with other safety organisations and emergency services.



## Effective Communication

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Effective communicators understand that different language is used in different situations. The language used changes depending on the following considerations.



1. What we are communicating about—what is the message?
2. Who we are communicating with—the number of people, their language skills and the relationship we have with them (the target audience)?
3. How the communication takes place—what is the method of communication, is it verbal or non-verbal?
4. Where and when the communication takes place—what is the location and timing?

To communicate effectively, we have to match our language to the situation. We need to clearly work out the:

- **why**—reason for the communication
- **what**—what we are going to communicate
- **who**—audience of the communication
- **how**—best form of the communication
- **when**—best time to communicate.

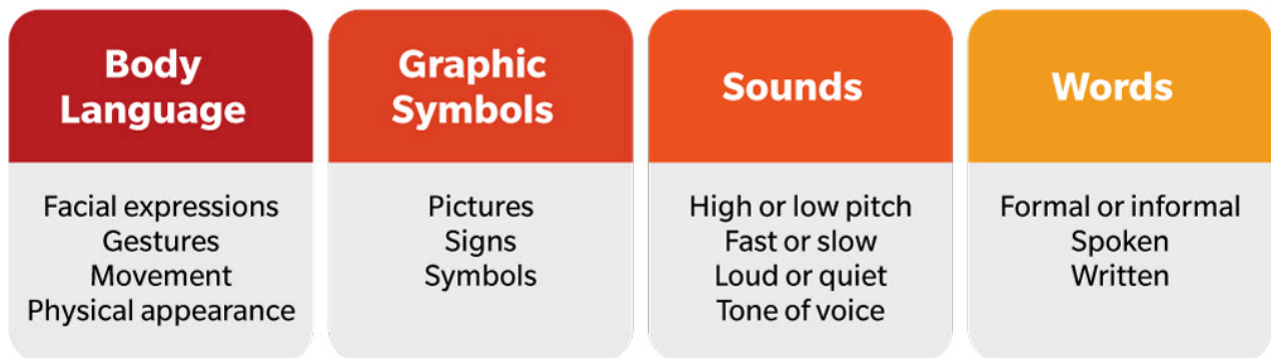




# Methods of Communication

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## Methods of communication



You will use some or all of these communication methods when you are:

- communicating face to face or over long distances
- recording information and filling in forms such as patrol logs and incident report forms
- signalling to your patrol team members
- using different communication tools like radios, phones, sirens, whistles, emails and social media platforms
- using flags and signs containing symbols to help the public safely enjoy the beach
- using gestures to help the public understand your message, such as pointing in the direction you want people to move
- wearing a uniform to identify yourself performing a role.

## Public Image

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One of the most important parts of communication is the first impression you give to the public and other organisations. Ultimately this is about gaining respect for your role in the public eye. Respect can be gained by having a good appearance, a professional attitude and good communication skills. But respect can easily be lost, and it can take a long time to regain.

Lifesavers are easily identifiable when in their red and yellow uniform and they should give people the message that they care. It is important that your dress and actions when performing in the role of a lifesaver convey a message of safety. For example:

- demonstrate respectful and effective communication
- demonstrate safe behaviour like swimming between the flags, taking care in powercraft
- wear sun-safe clothing and promote sun-safe behaviour
- wear water-safe clothing such as life jackets, patrol skull caps and helmets where appropriate.

## Good public image examples



## Poor public image example



## Verbal communication

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There are five key skills that you must understand and master to be an effective communicator.

### Five skills to ensure effective communication

#### 1 Pay attention

Show the speaker you are interested in what is being said.

#### 2 Observe

Watch the speaker to pick up non-verbal signals.

#### 3 Listen

Use any pauses in the conversation to think about what the speaker is saying.

#### 4 Summarise

Put what the speaker has said into a short concise statement to clarify what you have heard and understood.

#### 5 Respond

Show that you have been listening by responding in an appropriate manner.

When communicating verbally, you should:

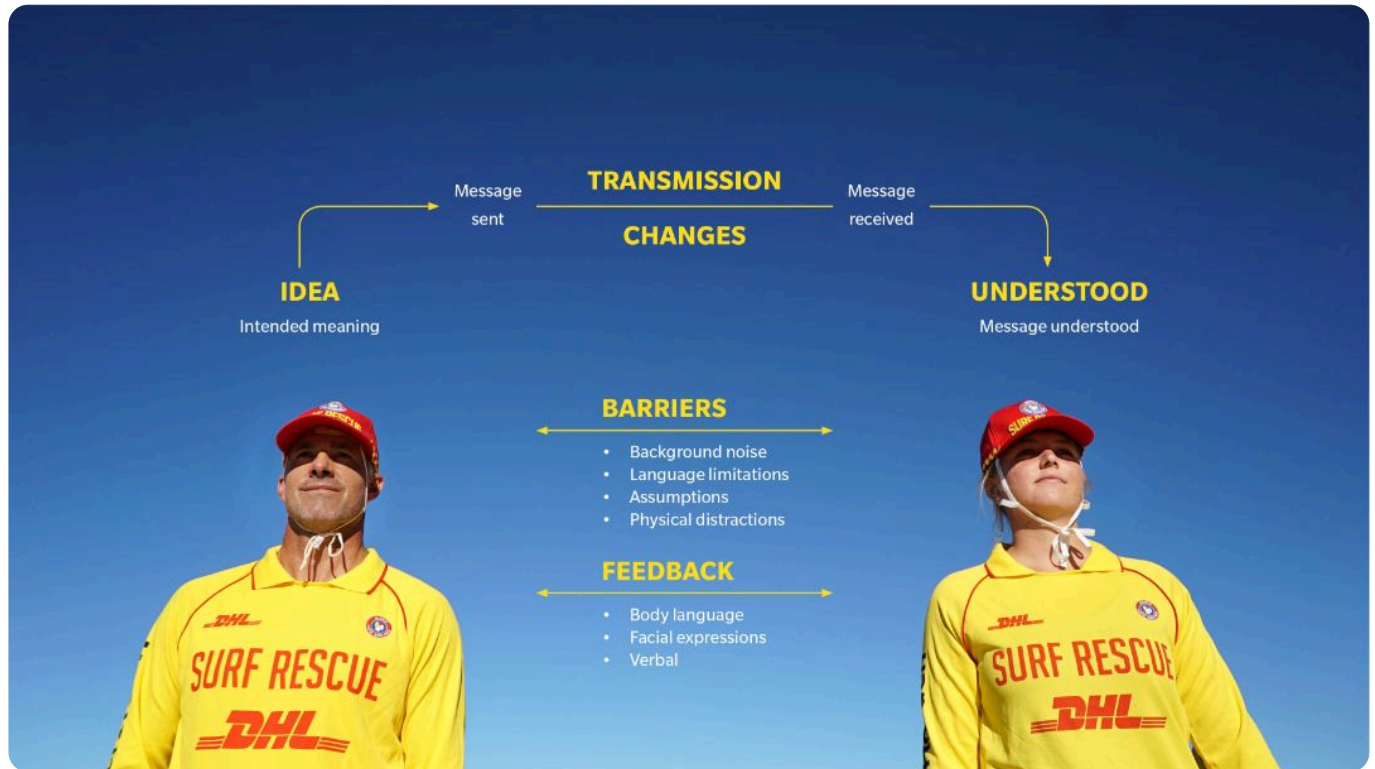
- concentrate on important ideas and supporting points, such as those given in a training session
- exchange information—you might ask questions for clarification about an incident or give instructions/explanations to a member of the public or a patrol team member
- listen to spoken presentations or explanations and patrol briefings
- participate in open-ended discussions with individuals or in a group, to clarify issues or solve problems.

You also need to:

- check that your message was understood by paraphrasing and getting feedback from the receiver
- ensure that the instructions received are acted upon within an agreed timeframe and meet operational requirements
- ensure that instructions are relayed clearly, concisely and accurately
- encourage and acknowledge the participation of other team members
- ensure confidentiality is observed in accordance with SLS policies and procedures
- make sure that the message has a clear structure
- make sure that you have defined and accepted chains of communication, e.g., patrol member to

patrol captain

- seek clarification of instructions from the appropriate person
- use enough words to ensure that your message is understood, but not too many for the receiver to understand
- use recognised or shared terms and language.



## Active listening skills

To be effective in spoken communication, you also need good *listening* skills. There are three levels of listening; you should aim for the third.

1. **Non-hearing**—when we are not taking in what is said. We make noises, for example, um, ah, or perhaps nod encouragingly, but do not really listen.
2. **Hearing**—we hear it all and can even remember little bits of the conversation, but we probably cannot respond adequately. We may say 'yes' or 'no' and nod occasionally.
3. **Listening and thinking**—we hear and think about what is being said without tuning out. We paraphrase and respond appropriately to what is communicated to us. We really take it in.

## Barriers to verbal communication

There are many barriers that get in the way of effective verbal communication. We can help recipients of our spoken communication by recognising and avoiding barriers.

- Actively listen to and acknowledge them to make sure you understand what they are telling you.



- Avoid conflict with them.
- Do not make assumptions about them or their beliefs or feelings on an issue.
- Make sure that background noise does not prevent them hearing the message, e.g., crowd noise, waves, outboard motors.
- Use appropriate tone, emphasis and volume.
- Use language appropriate to their level of language skills and understanding and use other methods of communication if necessary. If you are speaking to a person who has English as a second language, do not use jargon.



# Non-verbal communication



Communication is more than just words and active listening. In fact, words are only a small part of communication.

Non-verbal communication plays an important part in the overall communication process. You need to be aware of and seek feedback on your own non-verbal communication skills in addition to recognising and reading those of others. In situations where you are trying to communicate with someone who does not speak the same language as yourself, or has a hearing impairment, non-verbal communication will be the main form of communication.

We send non-verbal signals through our actions, facial expressions, gestures, posture and appearance. These can help or hinder communication and influence the effectiveness of our message, especially with children and people who are hearing impaired or speak a different language.

Non-verbal signals sent by the receiver of our message can tell us whether our message is being received or not, and whether it has been interpreted as we intended or not. It is important to be able to understand non-verbal messages, especially when working with large crowds and with distressed people.

The following examples of non-verbal communication forms can be read:

- eye contact
- facial expressions

- gait (the way you walk)
- gestures or hand signals
- general physical appearance
- mode of dress and grooming
- posture
- sounds or silence
- touch
- voice tone, pitch, volume and pace.

By watching the non-verbal messages others give and assessing their effect on us, we can ensure our non-verbal communication is positive, culturally appropriate and appropriate for our audience.

## Body language

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It is essential to use your body language to communicate positive, constructive and collaborative intent to others. To maintain good body language, develop good eye contact and smile as a first step. Remember not to stare. Use hand gestures to better explain your points and make sure your body is parallel to the person you are talking with. This means that you should try to face them directly when speaking or listening. Keep your body posture upright and relaxed.

Body language can be positive and complement the verbal message being sent. For example, if you require swimmers to move so that they are between the flags, blow a whistle to gain their attention, point at them to identify that you are blowing at them, then point to where you want them to move to, and begin to move in that direction once they move. Smile in affirmation as they move or give a thumbs up. You can also hold a tube in the direction they must move in, while the other hand directs them or points.

Body language can also be negative, and conflict with the verbal message. Frowning, crossing arms, tapping feet, avoiding eye contact, slumping, cringing, nervous shifting of weight, leaning over people and wagging fingers are all examples of non-verbal communication methods that can be negative in their effect on others.

### Positive communication examples







## Negative communication examples



# Graphic communication

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We use internationally recognised standard water safety signs to communicate with the public regarding safe water areas and appropriate behaviour in public areas. We use symbols, such as the red and yellow flags and our red and yellow clothing, to indicate designated swimming areas and who we are.

Language and literacy can be barriers to understanding the written word. It is therefore necessary to use clearly recognised images and colours to assist people in understanding our water safety messages.

## Warning Signs

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These use a yellow background and include simple symbols to communicate what you should be aware of. It's important to always observe and abide by the safety signs.





ROUGH SURF

DANGEROUS  
CREATURES

SLIPPERY ROCKS



SUDDEN DROP OFF

SHARK SIGHTED  
IN AREA

STRONG CURRENTS



SUBMERGED ROCKS



SHALLOW WATER

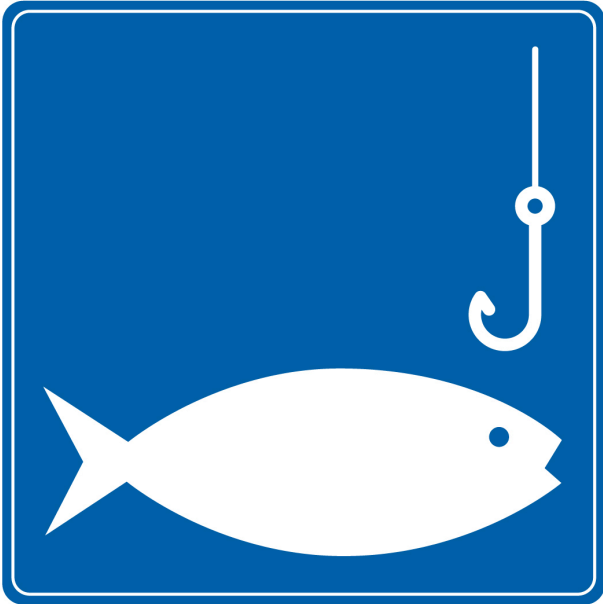
SWIMMING  
NOT ADVISED

WARNING

## Information signs

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These use a blue background and provide information about features or activities that may be present on the beach.



**FISHING  
PERMITTED**



**BODYBOARDS  
AREA**



**DIRECTION TO  
LIFESAVING PATROL**

## **Regulatory signs**

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These inform you about prohibited activities at the beach. They are red circles, with diagonal lines across a black symbol. There may be penalties associated with disregarding these signs.



## Safety signs

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These use a green background and indicate safety provisions or provide safety advice such as emergency beacons, public rescue equipment or first aid.



**EMERGENCY  
BEACON**



**PUBLIC RESCUE  
EQUIPMENT**



**AED**



**Emergency Access**

Refer to the [Safety and Wellbeing module](#) for examples of common graphic communications relating to WHS in the workplace.



# Selecting an appropriate communication tool



As well as communicating face to face, there are many tools to assist you to communicate effectively. The tools SLISA uses to assist you in communicating with others include patrol logs, radios, telephones, whistles, public address systems, circulars, bulletins, letters and memos, newsletters and noticeboards, social media posts, emails as well as articles in magazines and newspapers.

The tool you select will depend on whether the communication is to be:

- **internal** –within the organisation, e.g., your patrol team
- **external** –outside the organisation, e.g., corporate partners
- **formal** –following appropriate written and spoken conventions
- **informal** –conversational language.

The communication tool you select should be the most appropriate for the situation and should ensure a good flow of information for all who need to receive it. For example, you may need to use a radio, signals or telephone to communicate with other members of your patrol who are at a distance from you. You may need to use pictures instead of words on brochures or signs to overcome language barriers.

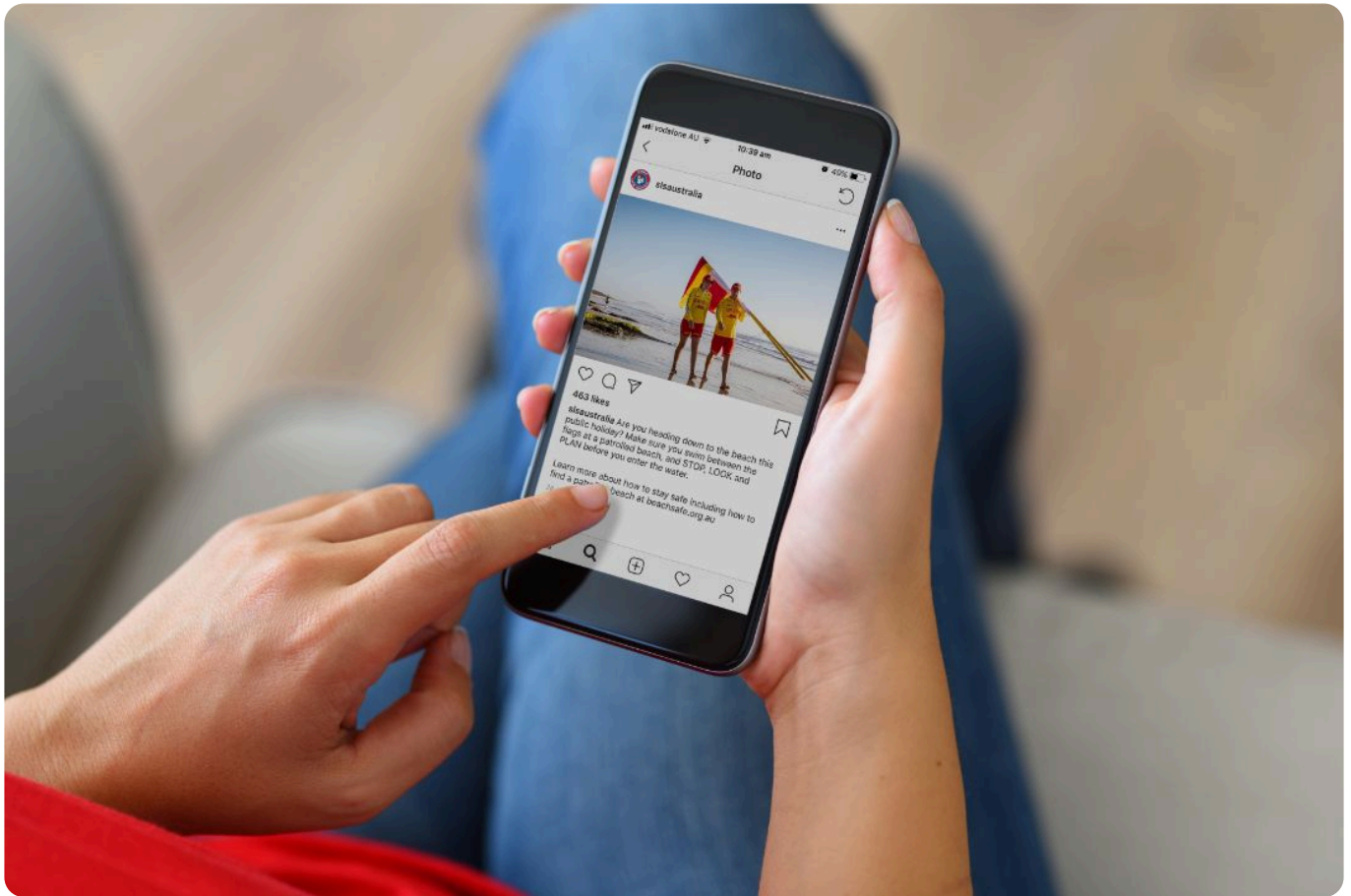
In any organisation, communication must be open and effective. The fewer people a message has to go through, the fewer barriers there are to communication. To select the most effective communication tool,

consider:

- how many people need to receive the message. If many people are involved, it may be best to present it in written form or have a meeting either online via webinar or face to face
- how much information there is. If there is too much for a listener to absorb, break it up and provide a written summary
- how urgently the information is required. If speed is not urgent, an email or entry in a logbook might be best. If it is urgent, then phone, radio or text may be more appropriate
- what facilities are available. Is there access to a digital device, phone, email, internet?
- what costs (money and time) are involved. Preparation and production of formal documents can be time consuming, and participant time might be stretched by too many meetings
- whether documentation or proof is required to meet organisation requirements. If a record may be needed in the future, or proof is needed that information was passed on, use a written tool (this is the case with logbooks, incident report documentation and committee meeting minutes)
- whether the communication is confidential or may excite or distress those who overhear it. If so, use face to face, the telephone (rather than the radio) or other ways of direct communication, e.g., text message
- whether instant responses are required. If so, face to face, telephone or a radio message is best
- who the information is being sent to and how formal or informal it should be.

When you need to communicate, consider the advantages and disadvantages of the available options appropriate to the audience before you proceed.

# Social media



Social media has an effect on our interaction and communication with others. There are three key issues to be considered with the role social media now plays in people's communication styles.

1. When we communicate through social media, we tend to trust the people on the other end of the communication, so our messages tend to be more open.
2. Our social connections are not strengthened as much through social media as they are face to face, so we do not tend to deepen our relationships.
3. We tend to follow and interact with people who agree with our points of view, therefore, we may be missing a diversity of viewpoints.

One potentially negative consequence of social media is a lack of privacy. Because interpersonal communication is changing, we may share on social media the sort of information better shared privately face to face. We need to keep in mind that social networks are searchable and it is possible to find out personal information even with privacy settings.

Another consideration with the use of social media is that as we tend to be more open with our messages, this can impact on how a conflict evolves or resolves. It's important to maintain a calm presence, stick to facts and focus on any cause of conflict to move forward.

Remember to show respect when communicating on social media as per the *SLSA General Code of Conduct*.







# Building relationships



The following may help with building and maintaining personal relationships and connections, which will help support good communication (and mental health).

- Acknowledge the contribution and points of view of others by nodding, gesturing and verbalising that you have heard them and can see their point.
- Admit when you do not know the answer or have made a mistake.
- Ask the other person open questions, e.g., how can I help?
- Follow through on commitments by agreed deadline.
- If you agree or disagree, openly say so and why with consideration.
- Lean forward with hands open and arms and legs uncrossed to show interest.
- Listen carefully, then paraphrase the other person's sentences to check whether you have understood.
- Look at the person as much as possible.
- Provide constructive and compassionate feedback.
- Respect others' right to complete their thought before you interrupt to say what you want to say.
- Respond to enquiries promptly.
- Show genuine empathy.
- Smile (when appropriate).

- Stick to facts.
- Use the other person's name early in the conversation.

## How to provide feedback

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Feedback is an easy and powerful tool for learning and building strong relationships. Communicating positive, compassionate and constructive feedback provides valuable information to support decision-making and improve performance. It is also an effective way to give and receive support to and from team members.

Constructive feedback identifies the impacts of specific behaviours and offers alternative behaviours for improvement. It is also beneficial to show compassion when providing feedback to reduce stress and improve relationships. The acronym 'Think Smart' can help you provide compassionate and constructive feedback.

### The THINK SMART approach to providing feedback

**THINK SMART****True**

Ask yourself if it is true.

**Helpful**

Ask yourself if it is helpful.

**Inspiring**

Ask yourself if it is inspiring.

**Necessary**

Ask yourself if it is necessary.

**Kind**

Ask yourself if it is kind.

**Specific**

Reference a specific behaviour.

**Measurable**

Describe the noticeable and measurable impacts of behaviours on results, feelings, reactions.

**Actionable**

Suggest at least three alternative behaviours or ask them how they can do things differently in future that are relevant, actionable and achievable.

**Relevant**

Make sure suggestions are relevant.

**Timely**

Provide feedback as soon as possible after a specific behaviour is displayed.

SLS encourages all members to provide feedback on all areas of the organisation. Feedback can be provided verbally or in writing. Refer to your SLS club and state centre websites for more information about the different SLS committees you can consult with and provide feedback to.

# Conflict resolution



Conflict is a completely natural, and even healthy, component of any relationship. At times you and another SLS member or another person may have contrasting perceptions of an issue and that can cause conflict. You may also find it difficult to remain calm and professional with team members when your interests and motivations are not in agreement. Conflict resolution is a way for two or more parties to find a peaceful solution to a disagreement among them.

There are three vital principles of conflict resolution:

1. Exploring win-win options and avoiding seeing conflict as situations where you either win or lose
2. Focusing on another's underlying interests, needs and concerns, and those that overlap with yours
3. Focusing on facts and using objective criteria such as common goals, standards, established process and practices.

The acronym CALM is a useful tool to help you remember a simple process for conflict resolution:



## The CALM approach to conflict resolution

### CALM approach to conflict resolution

#### **C** Clarify the issue

Clarify and agree on the real cause of conflict.

#### **A** Ask questions

Ask questions to understand what the other person sees as the real issue and not what you assume it to be.

#### **L** Listen actively

Restate, paraphrase and summarise what you hear to ensure you are on the same page.

#### **M** Move forward

Move forward to an agreed resolution through brainstorming win-win solutions together and keep an open mind to all ideas.

Empathy statements immediately show acknowledgement that you need to build relationships and mentally move through the conflict resolution process. They show an appreciation and understanding even if there is no agreement.

Here are examples of empathy statements.

- 'I appreciate your efforts and am sorry to hear that about your situation'.
- 'I understand your fear and frustration'.
- 'I apologise for your inconvenience and for not resolving the matter sooner'.

As per [\\_SLSA Policy 6.20 Use of Social Media](#), never communicate your frustration with an SLS member, person of authority or an SLS entity on social networking websites. Take a thoughtful approach because the way you communicate can have a big impact on how a conflict evolves or resolves. It is important to maintain a calm presence instead of having emotional outbursts. Stick to facts and focus on the cause of conflict to move forward.

## Communicating with an agitated person

In the role of a lifesaver, you may need to communicate with victims or other people at a scene who are or become agitated. Their agitation may be due to a mental health issue, medical condition (such as an injury), feelings of unfair treatment or circumstances involving drugs or alcohol.

An agitated person may be abusive, aggressive, anxious, argumentative, fearful, hyper-alert, irritable or violent. They may also have poor impulse control and their level of agitation may escalate quickly. Signs a person may be agitated include:

- confusion and disorientation
- fast-changing levels of consciousness
- rigid body language
- reporting seeing or hearing things that are not there.

Staying safe is a priority. Be vigilant of any dangers to yourself, others and the agitated person. Think 'safety first' by:

- avoiding being alone with the agitated person
- keeping at least two arm lengths away from the agitated person when possible
- making sure you have two exit points if possible and avoid blocking exits
- removing any object that could be used as a weapon
- removing conflict partners (other people who are stimulating/escalating the agitation).

If safe to do so, calmly engage with the person and communicate using de-escalation strategies before applying first aid if required (and within the limits of your training). De-escalation strategies to assist an agitated person feel safe include:

- allowing the person to move freely
- communicating with confident and non-threatening body language—avoid prolonged eye contact
- listening actively and non-judgementally to what the person is saying and feeling
- moving the agitated person to a calm, quiet and uncrowded area where they can rest in a comfortable position—touch them gently only when necessary and with their consent
- offering choices and alternatives for the agitated person to stay in control without violence or aggression
- providing reassurance
- setting clear boundaries regarding acceptable behaviour
- showing genuine empathy (See *Conflict resolution*)
- speaking politely, slowly and softly while using positive words.

If you are unsure or feel threatened in any way:

1. Remove yourself from the situation and seek a safe space
2. Report to your patrol captain
3. Send for help, e.g., the police.

# Routine communications for lifesavers

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- [Written instructions](#)
- [Reports](#)
- [Group communication](#)

## Written instructions

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Performing well in any lifesaving task usually starts with following written instructions such as those within training manuals and your local SOPs. These provide clear guidance to decision-making, help maintain consistency of processes and help you to understand what is expected of you. Some written instructions may also help to keep yourself, your team members and the public safe.

Be sure to read all written instructions and clarify anything you do not understand before attempting any task. To minimise any risk, do not start to follow written instructions until you understand them completely. Always follow each step in a written instruction in the exact order that they are written and keep a copy of them with you as you perform the task if possible.

When writing instructions for other SLS members or beachgoers to follow, write in the second person and ensure each task step follows a logical progression, has a single positive action, starts with an action word and is easy for all to understand. Support instructions with graphic communication where possible.

## Reports

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Lifesavers routinely complete reports to document important information relating to the following:

- first aid treatments
- incidents and near-miss incidents
- patrol operations
- powercraft operations
- radio operations.

Reports provide records of operations and activities and are regarded as legal documents. They should be accurately completed as per your local SOPs.

## Group communication

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Within any group or team, there are people with different levels of training, experience, skill and initiative. There is also often a diverse range of age, gender, religious beliefs and cultural backgrounds that influence how people communicate.

In order to be effective as a team, team members need to be able to communicate effectively with each

other. It is important that everyone has a chance to speak and provide input without interruption. You are strongly encouraged to share your thoughts during team discussions and limit your response time so that all SLS members can engage in the conversation. You should also actively listen to other SLS members and open yourself up to provide genuine responses to any questions they pose.

## Module 8 – Reflective Questions

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You are now ready to attempt the eLearning component of your course for this module. You can access the eLearning through the [SLS Members Area](#).

You should also test your knowledge by reading through the following reflection questions. If you find yourself answering 'no' or 'not sure' to any of them, you may wish to speak with your trainer for clarification.

1. Are you aware of your role in presenting a [positive public image](#) of Surf Life Saving and how you can do this?
2. Do you know how to [communicate effectively](#), thinking about what you say, how you say it and how you look when you say it?
3. Are you aware of Surf Life Saving's [Social Media Policy](#) and the information it contains?
4. Do you know how to [disagree in a respectful manner](#) and how to provide compassionate and constructive feedback?



# Module 9 – Spinal Management

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- [The Spinal Cord](#)
- [Common causes of spinal cord injury](#)
- [Classification and level of injury](#)
- [Signs and Symptoms](#)
- [Managing a victim with suspected spinal injury](#)
- [Log roll technique](#)
- [Strapping and extrication](#)
- [Module 9 – Reflective Questions](#)

## The Spinal Cord

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The spinal cord is a collection of nervous tissue connecting the brain to the body. The spinal cord is surrounded for most of its length by the bones (vertebrae) that form the spine, and which protect the soft spinal cord from injury. The cord runs through the oval shaped opening in each vertebra. The vertebrae are stacked on top of one another and are separated by spongy discs that act as shock absorbers between each vertebra.

The spinal cord is divided into four sections: cervical, thoracic, lumbar and sacral. There are 31 pairs of spinal nerves that connect with the spinal cord through nerve roots, which extend from the spinal cord from either side of the spinal column. Each spinal nerve relates to a different section of the body.

The spinal nerves are:

- 8 in the cervical vertebrae
- 12 in the thoracic vertebrae
- 5 in the lumbar vertebrae
- 5 in the sacral vertebrae
- 1 coccygeal nerve

# Common causes of spinal cord injury



Each year in Australia, between 300 and 400 people sustain traumatic spinal cord injuries (SCIs); mostly as a result of car accidents and falls. If a vertebra is broken and a piece of the broken bone presses into the spinal cord, the cord will be injured. The cord can also be injured if the vertebrae, which are normally held in place by strong ligaments and muscles, are pushed or pulled out of alignment, even if they are not fractured. Spinal injuries in aquatic based activities usually occur in the cervical (neck) section of the spine as a result of a traumatic force, such as diving into shallow water.

When being assessed for spinal injury approximately only 50 per cent of victims show recognised symptoms or signs of spinal damage. Therefore, it is important that if a spinal injury is suspected that the victim is managed accordingly.

The five common types and causes of spinal cord injuries are:

## 1. Hyperextension injuries

- Occur when the head is sharply thrust back and the spine is arched backwards beyond its normal limit
- Most commonly result in upper cervical spinal cord injury when there is nothing to restrain the head
- Common causes of hyperextension injuries are:
  - falling face down while climbing stairs

- motor vehicle accidents (whiplash)
- shallow water diving accidents.

## 2. Hyperflexion injuries

- Occur when the spine is arched forward beyond its normal limit
- Most commonly result in injuries to the cervical spinal cord because the head is pushed forward until the chin makes contact with the chest
- Common causes of hyperflexion injuries are:
  - during a football/rugby tackle and/or scrum
  - falling downstairs
  - whiplash.

## 3. Compression injuries

- Occur when the spinal cord is compressed following impact.
- Most commonly results in injuries to the cervical or thoracic spinal cord because the weight of the body is driven against the head by sudden, excessive compression
- Common causes of compression injuries are:
  - a heavy object falling on the head
  - diving injuries
  - jumping from a height and landing feet first.

## 4. Distraction injuries

- Occur when the spinal cord is overstretched, or pulled apart
- Common causes of distraction injuries are:
  - hanging
  - football/rugby tackles
  - gymnastics
  - playground injuries to children.

## 5. Rotation injuries

- Occur when the head and body rotate in opposite directions
- Results in twisting of the muscle, ligaments, vertebrae and/or spinal cord
- Common causes of rotation injuries are:
  - ejection from a motor vehicle
  - motor vehicle injuries.

# Classification and level of injury

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Spinal cord injuries are classified as complete or incomplete depending on how much of the cord width is damaged. It is very difficult in the prehospital setting to identify whether an injury is complete or

incomplete, and the role of the first aider is to minimise movement and protect the patient from further injury.

## **Complete injuries**

Complete spinal cord injury is the term used to describe damage to the spinal cord that is absolute. It causes complete and permanent loss of ability to send sensory and motor nerve impulses and, therefore, complete and usually permanent loss of function below the level of the injury.

## **Incomplete injuries**

Incomplete spinal cord injury is the term used to describe partial damage to the spinal cord. With an incomplete lesion, some motor and sensory function remains. People with an incomplete injury may have feeling, but little or no movement. Others may have movement and little or no feeling.

## **Level of a spinal cord injury**

The level of the spinal cord injury refers to the vertebra that the injury is closest to. For example, an injury to the spinal cord at the level of the sixth cervical vertebra would be referred to as a C6 injury (C for cervical). When the spinal cord is injured, the brain's ability to communicate with the body below the level of the injury may be reduced or lost. When that happens, the part of the body affected will not function normally.

The closer to the head the spinal cord injury is, the greater the area of the body that may be affected. For example, a person with a thoracic spinal injury may lose use of the legs (paraplegia) but the arms will not be affected. A person with a cervical injury may lose use of the legs and arms (referred to as tetraplegia or quadriplegia).



# Signs and Symptoms



Spinal cord injury should always be suspected where the victim has dived into shallow water, or potentially sustained one of the injuries suggested by hyperextension, flexion etc. Some victims may present with minimal or no signs or symptoms. If you are in any doubt treat the victim for a spinal cord injury.

## Signs suggesting SCI

- Abnormal heart rate (may be fast or slow depending on injury)
- Abrasions or bruising to the head or forehead
- Breathing difficulties
- Dilated pupils
- Fluid leaking from the ears
- Loss of or altered level of consciousness
- Loss of function in hands, fingers, feet or toes
- Loss of bladder or bowel control
- Neck or head in abnormal position
- Priapism (erection) in males
- Shock

## Symptoms suggesting SCI

- Back or neck pain
- Feeling of pins and needles
- Headache or dizziness
- Nausea
- Tingling, numbness or lack of feeling in lower or upper limbs, fingers or toes

## Managing a victim with suspected spinal injury

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Spinal injuries in aquatic-based activities usually occur in the cervical (neck) section of the spine as a result of a traumatic force, such as diving into shallow water. Victims may be located in or out of the water.

Good management of a victim with a spinal cord injury will minimise the chance of causing more damage, which may further reduce spinal cord function. A victim with a suspected spinal injury should be managed in the following order:

1. Move the victim **only** to extract them from danger
2. Call an ambulance as soon as possible
3. Manage the victim's airway
4. Provide spinal care.

## Extracting a victim with a suspected spinal injury (aquatic environment)

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In all instances where a victim is discovered floating face down within the break zone, they should be considered to have suffered a spinal injury.

Extracting a victim with a suspected spinal injury from shallow water is a two-part process:

## Part 1

### Extended-arm roll over



Perform an extended-arm roll to turn the victim to a face-up position. The extended-arm roll over technique maintains the victim's airway while immobilising their head in the neutral position by pinning the victim's head between their arms. The technique is particularly useful in calm, shallow waters.

#### *First responder (head position/team leader)*

1. Call/signal for 'assistance required'.
2. Approach the victim from their head and position your body so that it can protect the victim from oncoming waves.
3. Grasp the victim's upper arms.
4. Manoeuvre the victim's arms so they are placed on either side of the victim's head in alignment with their body. This will stabilise their head in a neutral position.
5. Reach under the victim with one arm to grasp the victim's corresponding arm (e.g., right arm holding right arm) at the level of the ears, holding their arms firmly alongside their head.
6. Roll the victim gently onto their back so that they face towards you during the roll.
7. Maintain this grip and move forwards (corkscrew), at the same time rolling the victim towards you until they are in a face-up position.
8. Determine if the victim is conscious or unconscious:
  - unconscious—call out for assistance, such as more lifesavers and a spinal board.
  - conscious—reassure the victim by explaining how you are going to extract them from the water.

***Second responder (hip position)***

!

9. Support the victim's hips with both hands.
10. Slowly raise the hips in line with the surface of the water.
11. Signal for 'assistance required' to attract more lifesavers to assist with the spinal board carry.

**Note:** Alternatively, you can stabilise the victim's head in water and maintain their airway by using the vice grip roll-over technique when you are in sufficiently deep water to be able to fully submerge underneath the victim.

**Vice grip roll over**

Follow the below steps to perform a vice grip roll over:







1. Adopt vice grip:
  - a. Clasp the back of the victim's head with one hand and position the forearm so that it is lying against the victim's spine – take care not to push the head forward
  - b. Grip the victim's jaw with the other hand and position the forearm down the victim's chest
  - c. Squeeze the forearms together to create a vice that supports the neck and head.
2. Move under the victim and roll the victim into a face up position while maintaining the vice grip and taking care not to raise the victim out of the water; this may cause movement of the spine.
3. Move forward to create a corkscrew effect to keep the roll smooth as the victim is turned and you end up on the opposite side of the victim.
4. Stabilise the victim on their back and monitor.

Care must be taken to ensure that pressure is not applied to the soft tissue part of the neck and that the victim's head is not pushed backwards out of the neutral position.

## Part 2—Spinal board carry

After stabilising the victim's head, and while reassuring the victim if conscious, a spinal board (or rescue board if no spinal board is available) can be moved into place under the victim to support their spine and transport them back to shore. SLSA recommends that a minimum of five lifesavers perform this procedure when possible. The lifesaver taking the role of first responder will not grasp the board at any point during the procedure as they continue to stabilise the victim's head.

### *Responder with spinal board*

1. Align the spinal board along the victim's side opposite the lifesaver who is supporting the victim's hips (in the hip position).
2. Submerge the spinal board under the victim by placing it vertically on its edge before pushing it down strongly into the water.
3. Guide the spinal board so that it floats into position under the victim. Other responders except the first responder can assist you with this as they arrive and take their team position.
4. Inform the lifesaver supporting the victim's hips that they can release their hold when the spinal

board is in place, so the victim is in contact with the spinal board.

5. Without losing contact of the spinal board and while the team leader maintains control of the victim's head, the extraction team will need to position themselves around the spinal board for best weight distribution, facing the direction they intend to walk as follows:
  - victim left shoulder
  - victim right shoulder
  - victim left knee
  - victim right knee.
6. Grasp the spinal board beside you using the closest handle.
7. Lift the victim simultaneously to a position above water level when instructed by the head position (team leader).
8. Walk as a team and at the same slow pace towards the shore while following any further instructions from the head position. The head position always walks forward to avoid tripping and does not turn their body to maintain stabilisation of the victim's head.
9. Continue to walk up the beach beyond the high tide line once at shore.
10. Slowly lower the victim while simultaneously dropping to a one-knee position when instructed by the head position.
11. Slowly lower the victim while simultaneously dropping to a kneeling position when instructed by the head position.
12. Slowly lower the victim simultaneously to the ground when instructed by the head position.
13. Lower the victim's arms so that they are in a more comfortable position and less likely to move. The head position continues to maintain stabilisation of the victim's head.
14. Manage the victim's airway and provide spinal care.

### ***Responding to waves***

The first responder in the head position should always have their back to the surf to protect the victim from oncoming waves. They will instruct at least one responder to alert of oncoming waves and provide warnings and advice on movement. When responding to waves:

- stop and stabilise the victim then brace yourself before a wave or white water hits the rescue team
- where possible, all responders should simultaneously lift the spinal board, so the victim's head remains out of water
- ensure the victim is secure after any wave before continuing to walk as a team towards the shore when instructed by the head position/team leader.

### **Note:**

- Avoid tripping by not crossing your legs as you carry a victim on a spinal board.
- All responders should keep their backs straight and practise safe manual handling when lifting and lowering a victim using a spinal board (see *Manual handling*).

- The first responder (head position/team leader) continues to maintain stabilisation of the victim's head while the victim is lowered to the ground and other responders manage the victim's airway.
- The first responder may need to be relieved of their head position after the victim is lowered to the ground. This should be done with minimal movement of the victim's head and neck.
- Team positions may change throughout the process.



## Managing the spinal victim's airway

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Managing the victim's airway takes priority over suspected spinal injuries.

- **When in the aquatic environment** – this is achieved by using the extended-arm roll over technique.
- **When on land** – it is acceptable to gently move the head into a neutral position if the airway is blocked. In victims needing airway management, jaw thrust and chin lift should be used to minimise neck movement.

Lifesavers qualified in advanced resuscitation may administer oxygen.

## Providing spinal care

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All victims with a suspected spinal injury require ambulance assessment. You will need to provide spinal care while waiting for the ambulance to arrive.

### Unconscious victims

An unresponsive, breathing victim with a suspected spinal injury should be placed in the lateral position, to maintain an adequate airway. The victim should be:

- turned onto their side using the log roll technique (see *Log roll technique*)
- handled gently, with no twisting or forward movement of the head and spine
- rolled with spinal alignment maintained and the head in a neutral position
- kept warm and continuously monitored.

An unconscious victim may present themselves lying down in a face-up (supine) or face-down (prone)

position. Maintain spinal alignment of the head, neck and torso at all times.

## Conscious victims

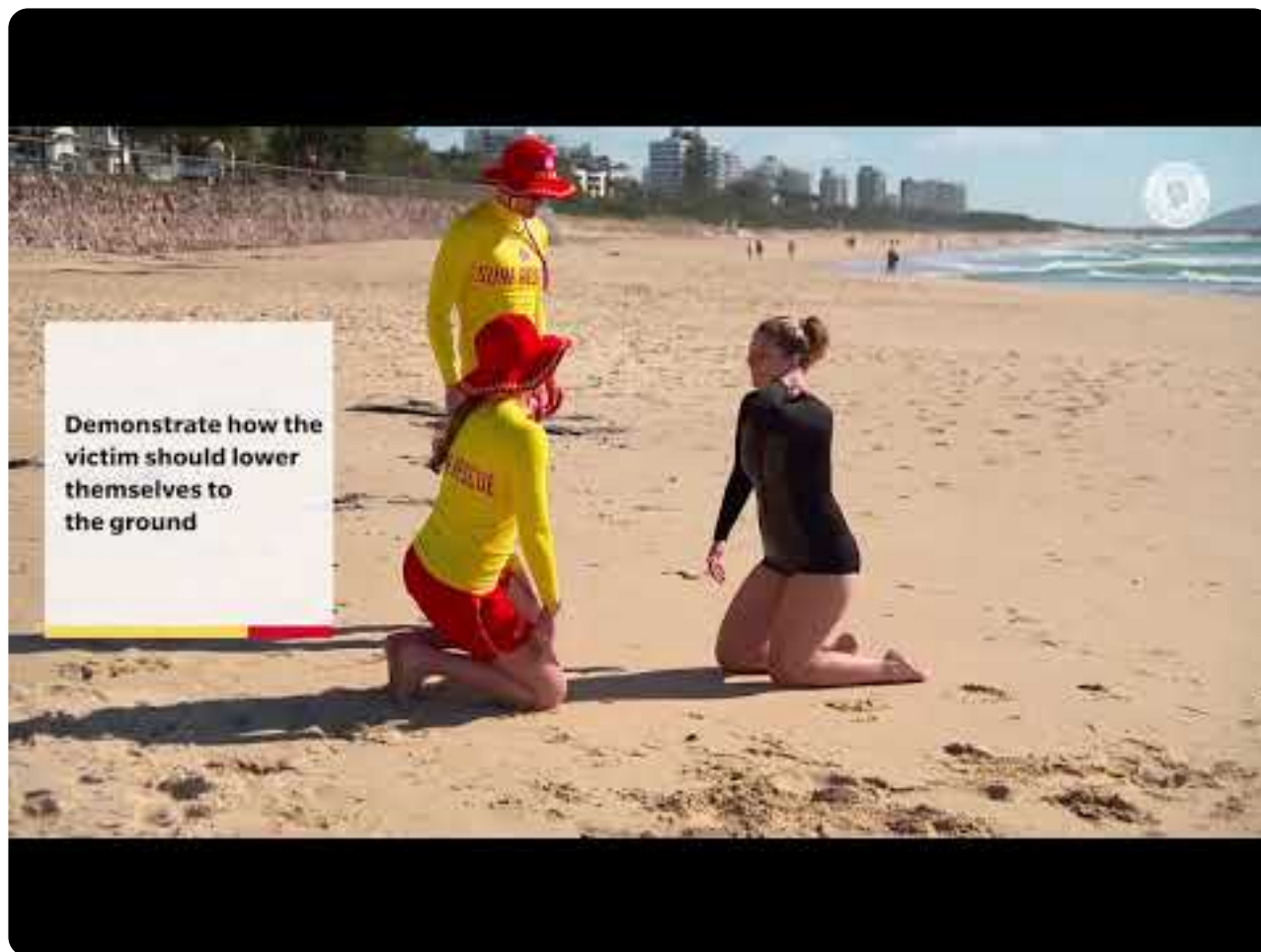
A conscious victim may walk up to you or present themselves lying down.

### Walk up victim



It is common for victims with a possible spinal injury to walk up to lifeguards on duty and complain of neck pain following a collision with a sandbank or from beach activity. Where the victim approaches the lifeguard on foot, the victim should be instructed to lower themselves carefully to the ground while keeping their head still.





<https://www.youtube.com/embed/n6EviC2xWg0?rel=0>

If the victim has difficulty lowering themselves to the ground, they may be supported by two lifeguards each taking a victim's upper arm as they assist the victim lowering to the ground.



When approaching the suspected spinal injury victim, you should approach front on to minimise any

movement of the head and neck. Approaching from the side or the back of the person will normally result in that person turning to look at the first responder to listen and talk, resulting in unnecessary head/neck movement.



<https://www.youtube.com/embed/wUxBFIhJnDs?rel=0>

Once the victim is lying face up on the ground, one lifesaver should then ensure the manual immobilisation of the victim's head and neck in the neutral position (see *Trapezius grip*).

#### **Victim lying down and face up**

A conscious victim with a suspected spinal injury who is found on land lying face upwards should be left where they are found unless movement is necessary to extract them from danger. If the victim can be safely left where they are found, manually stabilise their head while keeping them warm, monitoring their condition and reassuring the victim until medical help arrives.

If the victim starts to regurgitate/vomit, immediately roll the victim into the lateral position using the log roll technique and recommence primary assessment.

A conscious victim lying face down should be log rolled onto their back if their airway requires management. A log roll (see next section) should be used whilst stabilising the victim's head and neck in a neutral position, taking care to ensure spinal alignment during the roll. Unconscious victims should be log rolled into the lateral position and a primary assessment commenced.

#### **Victim lying down on a spinal board**



Victims do not need to be routinely placed on a spinal board unless they need to be extracted from danger. Where a victim with suspected spinal injury has been moved onto a spinal board (for example after removal from the water) and placed on the ground, they must be removed from the spinal board using the log roll technique. They should not be routinely left on the board for any extended period of time.

## Trapezius grip



The trapezius grip is used to support a supine victim's head and neck. This is achieved as follows:

1. Grip the upper trapezius muscle between the thumb and fingers

2. Support the head between the forearms (using a vice-like grip along the side of the head).

When manually immobilising a victim's head, you should:

- spread your fingers across the side of the victim's head to obtain maximum contact
- stabilise your hands by resting your elbows firmly on the ground (if in supine position), or by locking your elbows in place.

Align the victim's head in the neutral position, remembering contraindications

## Spinal care for children and infants

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When treating a victim younger than 8 years old, the anatomical differences between child and adult victims must be considered.

The younger child or infant has a relatively large head in proportion to its body. In the supine position (lying face up) the enlarged head can be pushed forward into a hyper-flexed position, thus narrowing the airway and elongating the cervical section of the spine.

In cases of suspected spinal injury in children, the placement of padding under the child or infant's torso (shoulder to hip) will assist in aligning the victim's head in the neutral position.

## Log roll technique

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The log roll is an accepted method to:

- facilitate airway management in an unconscious spinal victim.
- facilitate clearance of a spinal victims' blocked airway.
- facilitate the victim who is vomiting or regurgitating.
- turn a victim onto their side to allow for the placement or removal of a spinal board.

A log roll is best performed using four to six lifesavers; however modified versions using two or three lifesavers can still be successfully performed. When performing a log roll, the victim's arms are positioned down each side of their torso with their hands against their body. Their head, trunk and toes should always be kept in a straight line during the manoeuvre.

Follow these steps to perform a log roll as part of a team of four lifesavers:

Lifesavers 1–4 position themselves for the roll		
Lifesaver	Position	Position details
<b>1 (Team leader)</b>	At the top of the victim's head.	Manually stabilise the victim's head with both hands using a trapezius grip.
<b>2</b>	Beside the victim's chest.	Reach across the victim; securely grasp their shoulder and upper to mid thigh.
<b>3</b>	Beside the victim's pelvis.	Reach across the victim and securely grasp their upper arm and mid-to-lower thigh (this may vary depending on the size of the victim). They can also secure the victim's legs by grasping both ankles.
<b>4</b>	Near the victim's head.	Prepare to clear the victim's airway and place or remove the spinal board when appropriate.

1. Lifesavers 1-4 position themselves for the roll.
2. Lifesaver 1 positioned at the head coordinates rolling the victim into the lateral or recovery position, e.g., 'three, two, one, roll.'
3. Lifesavers 1–3 simultaneously and slowly roll the victim towards themselves while ensuring the victim's head, trunk and toes are kept in a straight line during the roll.
4. Lifesaver 4 treats the victim as required, e.g., clears the victim's airway, removes or places the spinal board.
5. Lifesaver 1 positioned at the head coordinates rolling the victim into the supine position when appropriate, e.g., 'Three, two, one, roll.'
6. Lifesavers 1–3 simultaneously and slowly roll the victim away from themselves while ensuring that head and spine stability is maintained at all times.

## Strapping and extrication

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### Strapping



A spinal board placed under the victim can be used by first responders should it be necessary to extricate the person. Strapping should be used to adequately immobilise the victim prior to moving. There are a variety of different straps that may be used. You should familiarise yourself with the ones used at your club.

To stabilise the victim for extrication, immobilisation strapping should be fitted over the victim's body and secured to the spinal board (see image above). Medical guidelines generally advise that the chest strap should be secured first, followed by the hip and foot strap. As a precaution, first responders should always check the strapping manufacturer's instructions about how straps should be applied.

Once all straps have been fitted, the first responder should check the security of the victim, and adjust the straps as required. First responders must maintain spinal alignment and head immobilisation until victim handover.

Strapping has been shown to restrict breathing and should be loosened if compromising the victim. It is important that the first responder constantly reassures the victim and monitors for discomfort, breathing difficulties and vomiting.

Strapping should only be applied if the victim is being extricated from danger to a location where medical personnel can assess them, and should be removed immediately after extrication is complete.

## Extricating a victim

Once the victim is secured to the spinal board, they are ready to be extricated.

1. The victim can be given oxygen therapy, if necessary
2. Plan a coordinated lift – the first responder positioned at the head of the victim is in charge of the lift/movement
3. Use safe lifting practices, maintaining head stabilisation
4. Extricate victim to desired location, feet first, maintaining head stabilisation and ensuring that the board stays level
5. Continue to monitor victim's condition.

### Points to remember:

- avoid lifting one end of the board higher than the other – keep the board horizontal, or the head higher on stairs or on an incline
- do not slide the spinal board across the ground or surface; it may catch and jolt the victim
- ensure that hair, jewellery and clothing is clear and cannot catch against surfaces or become caught in the first responders' hands, straps, etc.
- use safe lifting practices and lift in a coordinated manner
- carrying the victim feet first allows the first responder supporting the head to walk in a forward direction.

## Module 9 – Reflective Questions

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Now that you have completed this module, read through the following reflection questions. If you find yourself answering 'no' or 'not sure' to any of them, you may wish to go back and review the relevant content or speak with your trainer for clarification.

1. Are you confident in your understanding of how to respond to and manage a [walk-up victim](#) with a suspected spinal injury?
2. Are you confident in your understanding of how to perform an [extended-arm roll](#) and a [vice grip roll-over](#), and the conditions under which each should be used?
3. Are you confident in your understanding of how to work as a team to perform a [log roll](#) and a spinal board carry?
4. Are you confident in your understanding of how to [immobilise a victim's head](#)?

# Module 10 – Patrol Operations

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- [Patrolling the beach](#)
- [Patrol Uniforms](#)
- [Preparing for patrol](#)
- [Risk management](#)
- [Team Briefing](#)
- [Patrolling the beach as a team](#)
- [Emergencies on patrol](#)
- [Concluding patrol operations](#)
- [Other patrol resources](#)
- [Module 10 – Reflective Questions](#)

## Patrolling the beach

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Patrolling the beach is the most important role you will undertake as a lifesaver. It is where all your training and experience will be called upon to ensure beachgoers are able to return home safely after a visit to the beach.

It is important to remember that when the public see you on patrol, they will have an expectation that:



- you have the knowledge and skills to keep them safe
- you are at all times ready to come to their aid should it be required.

Accordingly, it is important you convey an image of competence and professionalism whenever you are wearing your patrol uniform.

## Patrol uniforms

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Correct branding of our lifesaving red and yellow patrol uniforms is essential. Not only does it allow our lifesavers and lifeguards to be easily identifiable by members of the public and other emergency services, but it promotes our services as unified and professional. Every member undertaking patrol duty must follow the same minimum and recommended uniform requirements, as well as conditions of use, as set out in *SLSA Policy 1.05 Patrol Uniforms*.

In addition to patrol uniforms, there are also uniforms to identify SLS members who are training, assessing, competing, coaching, officiating or acting as water safety personnel.

SLS uniforms also give room to promote our corporate partners that provide funding for our lifesaving programs to continue. It is important that we also promote our corporate partners and seek new ones to ensure the long-term sustainability of the surf lifesaving movement.

Be dressed in the correct patrol uniform and be ready to commence your duties as soon as your patrol is scheduled to commence.

**Note:** Limit the jewellery that you wear, as some jewellery can be a hazard.

## Preparing for patrol

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You should record your rostered patrol dates in your calendar as soon as they become available. If you are unable to attend your rostered patrol, you should advise your patrol captain and find a substitute as far in advance as possible for your patrol. The 'patrol captain' is referred to as the 'senior lifeguard' for lifeguards.

You are required to arrive early to help your patrol team to set up the patrol area and be ready to respond to any incidents that may arise during your allocated patrol. It is important that:

- a risk assessment is conducted so the safe patrolling location is identified for swimmers
- the necessary number of suitably qualified team members are ready to patrol
- the appropriate gear and equipment are available and 'rescue ready'.

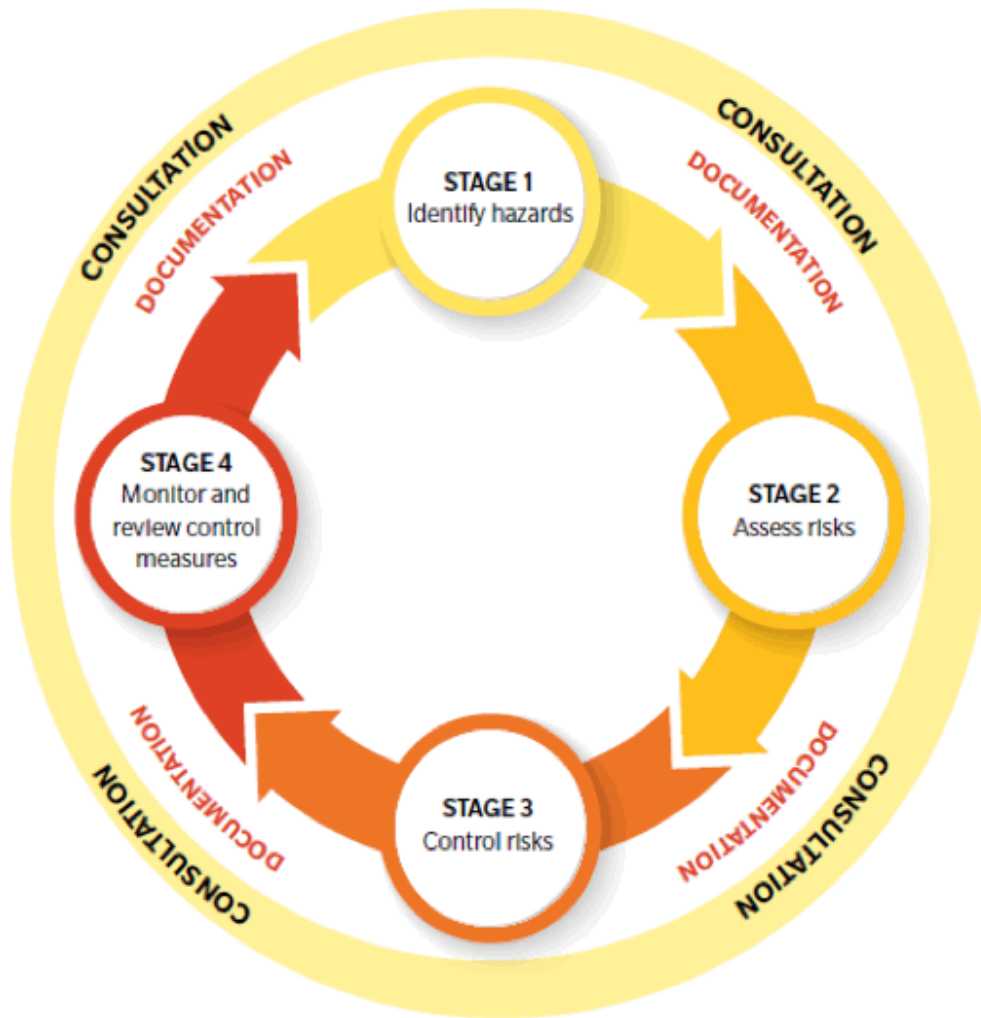
## Risk management

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Establishing a safe beach or aquatic environment for the public involves the effective management of risk. Risk exists in all aspects of lifesaving and club operations. The level of risk faced at any one time is a combination of the likelihood of an incident occurring and the consequences if it were to occur.

Effectively managing risk involves following the risk management process. When following this process within your surf lifesaving club or on patrol, it is important that you report any potential hazards to your patrol captain or club safety officer immediately.

### The risk management process

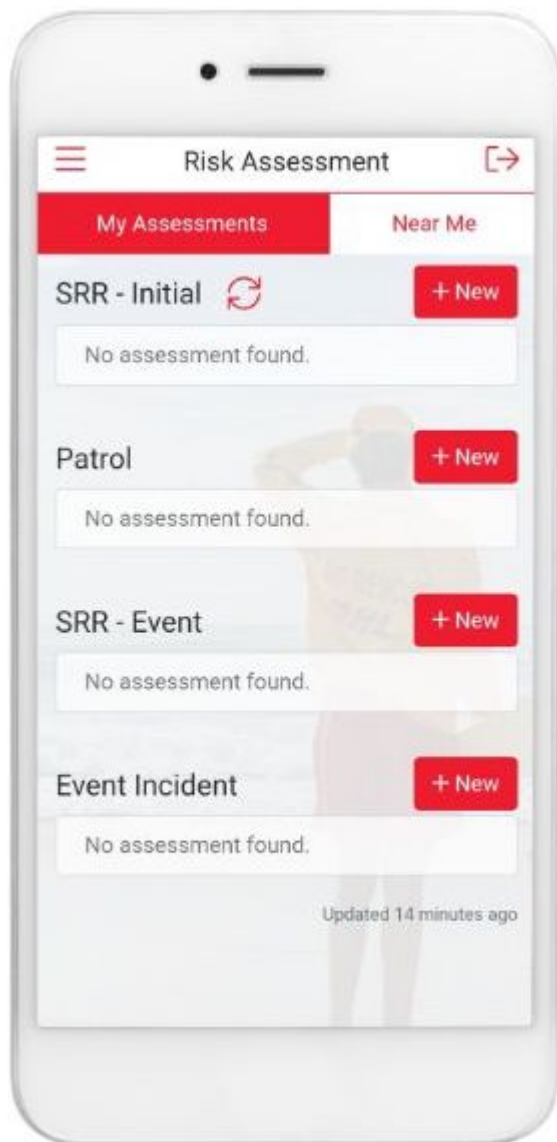


## Communication and consultation

It is essential that lifesavers consult widely at every stage of the risk management process. By drawing on the knowledge and experience of each other, more informed decisions and agreements can be made about how work can be carried out safely.

Discussions often take place during patrol team briefs and debriefs and before commencing training activities, so all lifesavers are made aware of any potential risks. Where possible, hazards should also be communicated to the public using appropriate warning signs, e.g., wet floor, strong currents, stingers. Signage and its location should be assessed regularly during your patrol, as conditions and beach populations can change over time.

Methods for minimising hazards should be discussed and agreed to by SLS members and committees to ensure they meet SLS requirements and maintain a safe environment for both SLS members and beachgoers.



## Identify hazards

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Identifying the source of risk involves finding hazardous things and situations that could potentially cause harm. Some hazards are part of a process such as noise, toxic properties of substances or mechanical hazards. Others may result from equipment failures and misuse, spills and structural failures.

Refer to the [Safety and Wellbeing module](#) of this manual or the [SLSA Guidelines for Safer Surf Clubs](#) in the [SLS Members Area Document Library](#) for more examples of common hazards in a surf lifesaving club and the surf environment.





## Assess risks

A risk is a possibility that harm might occur when exposed to a hazard. Carrying out a risk assessment for each risk posed by a hazard can help you evaluate the level of risk a hazard poses and inform what appropriate actions you should reasonably take. Assess risks by considering what could happen (consequence) if someone or something is exposed to a hazard and the likelihood of it happening before plotting them in a risk score matrix to determine the level of risk (See example in Table 1).

On patrol, a risk matrix table is not prepared; however, for each risk identified by your patrol team you will need to consider the likelihood of occurrence and the consequences. Where both the likelihood and consequence are both high, your patrol team will need to decide what can be done to reduce or eliminate the level of risk.

### Example risk matrix

		Consequence				
		Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
Likelihood	Almost certain A					
	Likely B					
	Possible C					
	Unlikely D					
	Rare E					
		Risk level: Low Moderate High Extreme				

The patrol team will need to establish a safe patrol area (and flagged area) for beachgoers of varying swimming abilities before the beach is opened. Each patrol member needs to take into account potential risks, which may include:

- areas known to be popular for boardriders

- areas that may be inappropriate for swimmers
- easy access to beach, e.g., car parks adjacent to dangerous surf zones, caravan park access
- identified hazards, e.g., rock formations, rip currents or potholes
- special considerations known to apply to your particular patrolling location
- the surf lifesaving club's condition
- the likely number of beachgoers
- the surf conditions
- the beach condition and suitability, e.g., clear of broken glass.

## Control risks

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If your patrol is uncomfortable with the level of risk associated with a particular activity, control measures will need to be implemented to reduce the level of risk to a tolerable level before the activity can be undertaken. For each risk assessed, lifesavers should consider how to make the level of risk as low as reasonably practicable, then choose an appropriate control measure.

Some risks can be controlled easily with appropriate actions taken immediately, while others will be complex and require more time, consultation and planning to resolve. You should prioritise areas for action and focus first on those hazards with the highest level of risk.

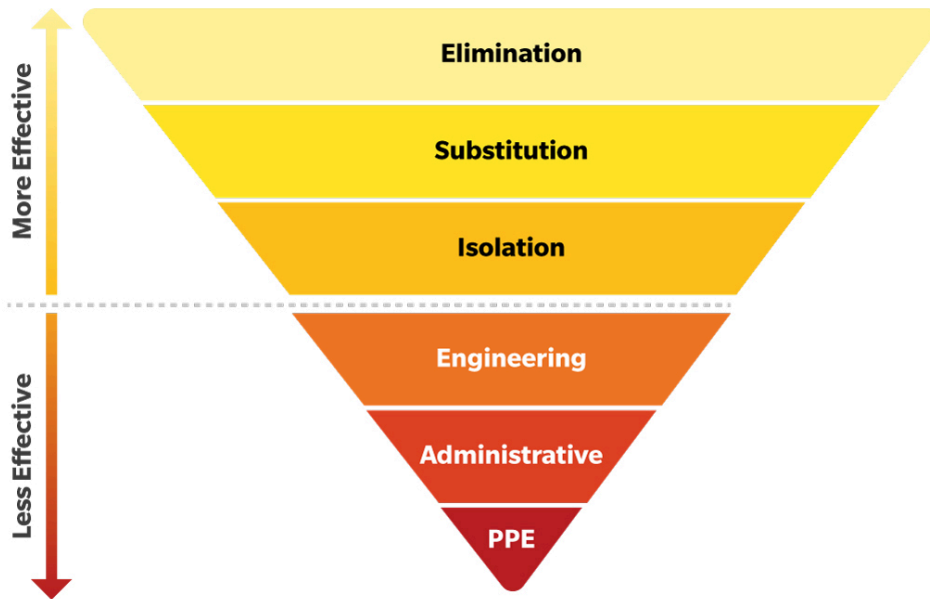


## Control measures

When determining the most suitable risk control measure, you need to consider various options and choose the control/s that most effectively eliminates the hazard or minimises the risk. A level of risk can be reduced by a single control or a combination of different controls.

The ways of controlling risks are ranked from the highest level of protection and reliability to the lowest. This ranking is known as the hierarchy of risk controls (see Hierarchy of controls diagram below).

## Hierarchy of controls



Once a risk is controlled, it is important that there is ongoing monitoring and review to see if the likelihood or consequence has changed and ensure that the control measures are working as planned. For example, is the prohibited area signage still effective as an administrative control to prevent beachgoers entering an IRB storage shed, or should a coded lock be added to the storage room's door as an engineering control?

## Monitor and review control measures



Documentation assists you to monitor and review the risk control measures you and other members put in place. Thorough documentation is required at every stage of the risk management process to help with controlling risks. It also provides comparison points for future risk assessments, which can identify periodic issues and verify the effectiveness of implemented controls.

WHS documentation and reporting at your surf lifesaving club also contributes to decision-making at

every level of the organisation, ensures SLS complies with legislative requirements and informs national coastal safety research.

Refer to the [SLS Members Area](#) Document Library for example SLS WHS documents and templates, e.g., hazard and risk registers.

## Team Briefing

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On arrival at patrol, your patrol captain will conduct a preliminary briefing. It may be the case that you are the first team to patrol the beach for the day, or you may be taking over from a team that has patrolled the beach earlier in the day. If a change-over in patrol teams is occurring, it is critical the beach remains effectively supervised by patrolling members during this period.

In either case, it is important you arrive at least 30 minutes before your patrol commences so that you are able to properly participate in this briefing. You should sign on to the patrol using the method designated by your SLS state centre standard operating procedures (SOPs).

The team briefing conducted by your patrol captain will generally include all members of the team working together to identify:

- any new and substitute patrol team members
- what roles individual team members will perform
- how team members will rotate in their roles during the patrol
- how the beach will be effectively supervised and managed by your team
- how you will communicate with each other and beachgoers while on patrol
- what potential hazards to beachgoers and patrol members exist or may arise during the patrol
- any special events or activities (such as Nipper activities, surfing contests, oceans swims, etc.) that are known to be taking place during the day that may influence how you effectively manage



the beach

- how gear and equipment will be allocated to key areas of risk
- the risks identified in the initial risk assessment and methods for minimising these risks.

## Safety First

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As part of your duty to ensure the safety of yourself and others, you should always ensure you are both physically and psychologically prepared for duty and any lifesaving training activities. The IM SAFE acronym can help you to prepare for patrol as well as communicate your personal capabilities and limitations with your patrol captain.

### I'M SAFE

#### **I** Injury or illness

Am I fit to work or fully recovered?

#### **M** Medication

Am I under the influence of any medication?

#### **S** Stress

Am I showing signs and symptoms of severe or critical incident stress?

#### **A** Alcohol or drugs

Am I under the influence of alcohol or drugs?

#### **F** Fatigue

Am I feeling extreme tiredness?

#### **E** Expertise

Do I need any further training to meet competency standards?

# Allocation of responsibilities



Every member of your team will have a role to perform during a patrol, and roles may change throughout the day. The role you are allocated by your patrol captain may be influenced by any number of factors, including:

- Any changes in the number, behaviour and activities of beachgoers from time to time
- The need to ensure all team members are engaged, and are provided the opportunity to develop their skills in all aspects of patrol operations through training opportunities and appropriate mentoring from those with more experience
- The prevailing surf or weather conditions and their influence on the patrolled areas
- Your awards and qualifications, and those of the other members of your team
- Your own particular skills and experience, and those of the other members of your team.

## Examples of roles on patrols

### Allocated role    Activities during patrol

**Patrolling the water's edge**    Members allocated to this role may be expected to act as the primary intervention with swimmers and boardriders entering and exiting the water. They should have readily available rescue equipment and communication tools such as whistle or loudspeaker and may be called upon to effect water-based rescues at any time.

**Surveillance**    Members allocated to this role will be primarily responsible for ensuring the bathing area is properly supervised, usually from an elevated position and direct radio contact with the patrol captain.

**Roving patrol**    Members allocated to this role will conduct a roving patrol to a location designated by the patrol captain, with the minimum equipment prescribed for this patrolling method.

**Crowd control**    Members allocated to this role will be expected to maintain a sufficient boundary between members of the public, lifesavers and victims, while other members respond to an incident.

**Water safety**    Members allocated to this role provide water safety for SLS junior development activities, special events, skills maintenance sessions and SLS member training as required. They ensure the safety of participants in SLS sanctioned activities while positioned in the water with rescue equipment



## Setting up the patrol area

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It is the patrol captain's decision on where to set up the patrol area, but your patrol captain may ask you to participate in this process. You may need to help assess the surf conditions or establish a safe area to set up the patrol. It is important that a risk assessment is undertaken before the patrol team briefing.

The minimum rescue equipment required in order to effectively conduct a beach patrol will be outlined in your local SOPs and/or Lifesaving Service Agreement (LSA).



# Checking gear and equipment

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It is essential all patrol gear and equipment is in proper working order and condition prior to your patrol commencing, so that you can be confident it is 'rescue ready' and can be used should the need arise. Any damaged or unserviceable equipment should be reported to your patrol captain as soon as possible, removed from service and tagged as unserviceable (as per your local SOPs) and repaired or replaced where appropriate.

## Rescue tubes

Regularly check that:

- the clip to secure the victim is operational and not rusty
- the line is not fraying, especially where the knot is tied to the ring. Any other knots in the rope will weaken it over time
- the sash is not frayed or torn
- the 'webbing' is in good condition by pulling and applying load
- there is no splitting, particularly at the ends.



## Rescue boards

Regularly check that:

- the deck is waxed (where required)
- the board fin is solidly in place and has no sharp edge
- the hand grips are in good condition
- the knee pads are secure (where required)
- there are no sharp or abrasive areas, holes or cracks in the board.



## Radios

Your patrol captain may request your assistance to check that radios are operational. The [Radio Operations module](#) of this manual contains vital information in relation to radio usage and maintenance and should be referred to as required.

## First aid kits

First aid kits should be checked before a patrol, after each time the equipment is used and at the end of the patrol. It is important to maintain the first aid kit by making sure any items are replaced as soon as possible after use, and that items remain within their use-by date. Your patrol captain will assign a team member appropriately qualified to confirm first aid kits are operational.



## Oxygen and defibrillation equipment

Oxygen and defibrillation equipment should be checked before a patrol, after each time the equipment is used and at the end of the patrol. Your patrol captain will assign a team member appropriately qualified to confirm oxygen and defibrillation equipment is operational.



## Patrol flags

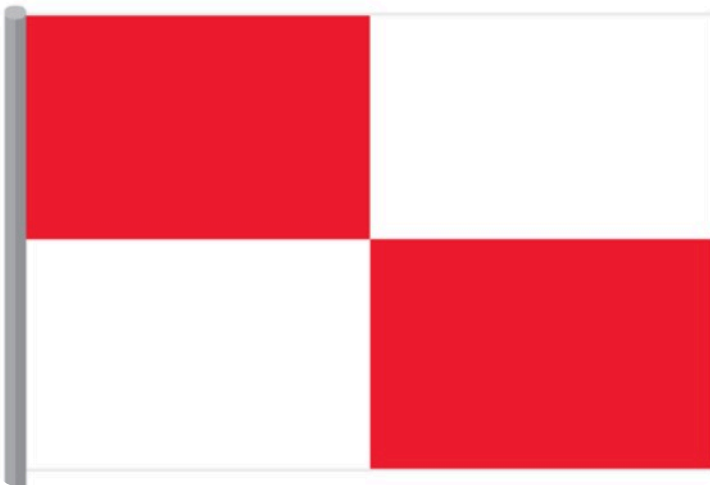
Red and yellow flags — patrol flags — are placed to indicate the supervised area where the public should swim.



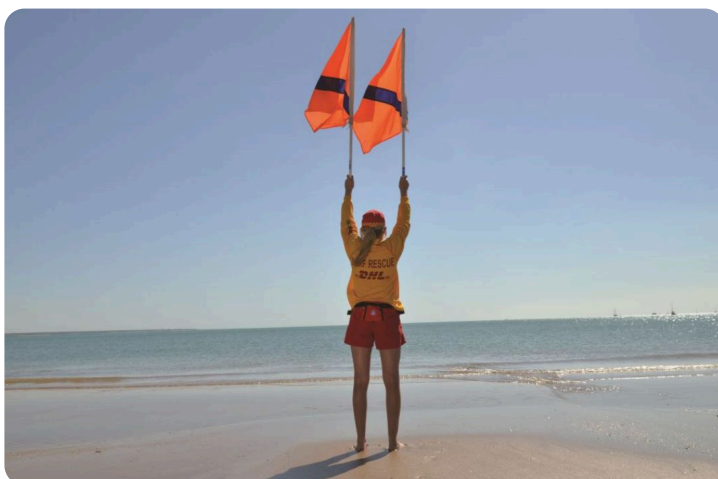
Black and white quartered flags — craft flags—are placed to indicate an area where surfing and other craft are not permitted. This is often set as a buffer zone on either side of the red and yellow flags.



**Red and white quartered flag** – emergency evacuation—is placed to indicate that people should leave the water immediately due to an emergency.



**Orange with a blue diagonal stripe flags** – signals flags—may be used when performing beach to water signals.





# Patrolling the beach as a team

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- [Roles and responsibilities](#)
- [Patrolling methods](#)
- [Working as part of a team](#)
- [Community Service](#)
- [Reporting incidents to the patrol captain](#)
- [Preventative actions](#)
- [Crowd control](#)
- [Working with inflatable rescue boats](#)

## Roles and responsibilities

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### Your responsibilities as a patrol team member

- Actively patrol the water's edge. It is advisable to have a piece of rescue equipment nearby or on you in case of emergencies.
- Avoid undertaking too many duties on the one day, to avoid fatigue and reduced effectiveness.
- Ensure you are in a position, both physically and psychologically, to undertake the duties expected of you during the patrol, having regard to the IM SAFE principles.
- Follow patrol captain instructions within your limitations and training.
- Inform your patrol captain if you are unable or unwilling to perform a task.
- Know your patrol area.
- Place (and maintain) flags and equipment as close as possible to the water's edge that can move with tidal changes.

- Promote safety first.
- Remain vigilant in your surveillance of the patrol area and its surrounds.
- Report to the patrol captain on any:
  - potential hazards for beachgoers that are identified
  - significant changes in swimmer activities or behaviour
  - significant changes in the surf or beach conditions
  - other activities taking place on the beach that may constitute a risk to the safety and wellbeing of members of your team and/or beachgoers.
- You must not leave the patrol area unless authorised to do so by your patrol captain.

## **Responsibilities of the patrol captain**

- Be in charge of all operations.
- Brief team members at the start and end of patrol duty.
- Collate reports of equipment faults reported by team members.
- Ensure that all relevant information is recorded in the appropriate logs.
- Monitor weather forecasts and beach conditions.
- Organise the rotation of patrol member responsibilities.
- Place rescue equipment ready to access in and around the flagged area.
- Provide direction to patrol team members when needed.
- Respond appropriately to reports from patrol members.
- Support member development.

# Patrolling methods

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## Between the flags method



This is the most commonly used patrolling method. It requires setting the red and yellow flags in a location that provides for maximum safety to swimmers. This will take into consideration:

- prevailing surf conditions
- accessibility
- beach usage
- ensuring swimmers and boardriders are each allocated separate zones on the beach so that they do not impede or present a risk to the safety of one another.

Equipment will be placed near the flags ready for use.

## Roving method



Roving patrols are used in conjunction with the 'between the flags' method. They can be undertaken by a minimum of two lifesavers or as per your local SOPs. As well as setting and monitoring the flagged area, additional team members are allocated to walk back and forth along the beach, watching outside the flagged area. Side-by-side vehicles (SSVs) or IRBs can also assist with a roving patrol. This allows greater coverage of the beach outside of your designated patrol area.

In 2017-18, almost one-third of all drowning deaths in Australia occurred within 1km of the nearest lifesaving service<sup>[22]</sup>. The area covered by roving patrols will be directed by your patrol captain as per your local SOPs and/or LSA.

The minimum equipment to be carried by lifesavers on a roving patrol includes:

- a radio
- a rescue tube (with swim fins where available)
- personal protective equipment in a waistbag with a note pad and pen.



## Outpost method



This method also works in conjunction with the 'between the flags' method. As well as setting and monitoring the flagged area, additional lifesavers can set up a patrol at areas that are outside the red and yellow flags. This outpost method usually does not include the actual setting up of a flagged area.

In other cases, an outpost patrol may be established outside of the flags when a large group of swimmers are identified outside your primary supervision zone and your patrol team has enough members to dispatch additional lifesavers to that location for a brief period.

## Open beach method



In some locations, there may be only a tower or a series of towers with overlapping supervision zones, and no flags. The tower is a point of reference for members of the public wishing to access the services of lifesavers or lifeguards. Open beach observation is best accompanied with a roving patrol.

## Stand-by method (surveillance method)

This method involves the minimum number of lifesavers or lifeguards monitoring the public during periods of very low activity, e.g., in the early mornings, late afternoons or bad weather. Refer to your SLS state centre SOPs for the minimum number of lifesavers and what SLS award holders are required to be on patrol duty.

# Working as part of a team



Lifesavers rarely work alone. To maximise the efficiency of your team, you should:

- be aware of your limitations
- be aware of who the patrol captain is for the patrol, e.g., patrol captain or senior lifeguard
- be ready to assist other patrol members if called upon to do so
- communicate effectively, and be supportive of your team members
- encourage participation from all members, e.g., listen and ask relevant questions where clarification is required
- have a clearly defined purpose and established goals, e.g., how will the beach be supervised?
- have lifesavers and lifeguards working together when both services are patrolling the beach at the same time
- identify and carry out tasks that need to be done, subject to your patrol captain's directions, e.g., who performs what roles?
- include all members in group activities
- make new and substitute team members feel welcome
- speak up if you see or hear something that warrants your team members' attention
- use time efficiently, e.g., when will roles be swapped?

**Note:** It is important that your team conducts scenario-based training together, whether during or



outside of your rostered patrols. This will ensure you are all confident in each other's skills and abilities and have shared experience in carrying out rescues and emergency care treatments working together as a team.

## Community Service

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High-quality community service involves commitment to doing your job in the best way possible, including being willing to help and maintain a positive attitude. Remember that the people you are helping may be distressed, scared or under pressure, and this will affect how they feel when interacting with you.

Following the guidelines below will help you create a positive relationship with the community:

- always be polite and courteous
- avoid congregating together in the patrol tent to appear more approachable
- provide information about rip currents and other hazards
- say 'hello' to and engage with beachgoers
- smile, listen actively and ask for a person's name when you are talking to them
- wear your patrol uniform and promote sun safety.



# Reporting incidents to the patrol captain



Where you are requested by your patrol captain to assist in responding to an incident, it is imperative that you keep them up to date with the situation as it develops.

This will ensure your patrol captain is able to:

- constantly assess the seriousness of the situation
- communicate critical details and updates through to your SLS state communication centre
- ensure appropriate allocation of resources to the incident (both internal and external).

You should include the following critical details about a victim when following the '4 Ps' incident procedure to communicate their condition:

- approximate age
- gender
- injury or illness suffered
- level of consciousness
- signs of breathing (normal or abnormal)
- signs of severe, life-threatening bleeding

- the event that caused this injury or illness
- the treatment you are currently providing them and if further assistance or equipment is required for treatment.

## Preventative actions



As a patrolling lifesaver, your primary role will be one of prevention. A preventative action is a direct action taken to reduce or eliminate the probability of a specific rescue, first aid or other reportable incident from happening in the future.

Preventative actions can be either '*static*' or '*dynamic*'.

**Static** preventative actions are interventions that, once set in place, have the effect of reducing risk to all beachgoers over time. Examples may include:

- conducting risk assessments to eliminate or reduce risks posed by hazards
- conducting stinger net drags prior to patrol
- erecting proper signage to identify key risks
- establishing the flagged area in a safe location for swimmers.



**Dynamic** preventative actions involve direct interventions with particular beachgoers, preferably at an interpersonal level, and can often have a greater effect on beachgoer behaviour than passive preventative actions. Examples may include:

- communication with swimmers to ensure they maintain their position between the flags
- direct communications with particular individuals or groups of beachgoers engaged in risky behaviour
- providing surf awareness education to members of the public
- public address announcements to particular boardriders encroaching into the flagged area.







Just as incidents are reported, so are preventative actions. These statistics contribute to the research and drowning prevention strategies utilised by SLSA.

## Crowd control



When an incident occurs, it is natural for members of the public to want to see what is happening. However, unintentional interference by onlookers can hinder the progress of a rescue or first aid treatment. It is important for patrol team members not directly involved in the incident to try to keep the public clear of the scene.

A 'public address' (PA) announcement or a loudhailer ('megaphone') may be used to clear an area if necessary.

You may also attempt to create a visual barrier using towels and umbrellas to help control the crowd while maintaining the victim's privacy.

If you are short of patrol team members for crowd control, you can try allocating a bystander to this role. Most people will be happy to help, and this will give them something to do while you are focused on rescuing or treating the victim.

# Working with inflatable rescue boats



Lifesavers may be called on to assist the IRB driver and IRB crewperson with the launching and return of the IRB. The four main considerations you will need to be aware of include:

1. safety around the IRB
2. assisting with launching the IRB
3. assisting with IRB returning to shore
4. victim transfer from the IRB to the beach or designated evacuation area.

At all times the IRB driver will direct this process.

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## Safety

### ✓ DO

- always stay clear of the propeller
- approach the boat from the side, not the rear
- follow all instructions given by the IRB driver and crewperson

- keep all objects (e.g., boards, tubes, hair, etc.) away from the vessel when it is in the water
- keep naked flames away from the IRB, fuel and the storage shed.

## ✗ DO NOT

- attempt to board the IRB if it is out of control
  - stand behind the IRB when it is in the water
- 

## Assisting to launch an IRB

SLS recommends that two lifesavers assist the IRB driver and IRB crewperson launch an IRB.

1. Take your team position:
    - Lifesaver 1—stand behind the IRB crewperson and hold the handle closest to your position
    - Lifesaver 2—stand in front of the IRB driver and hold the handle closest to your position
  2. Prepare for the driver to board:
    - pull the IRB via the handle directly into oncoming waves
    - keep the IRB positioned straight into the waves, using your legs and body weight while pulling the handle
  3. Move away from the IRB when directed by the IRB driver and keep clear of the propeller
- 

## Assisting with IRB returning to shore

When the IRB crew signals that they wish to return to shore, lifesavers need to:

- acknowledge signal as understood
  - stand in the location that they wish the IRB to return to
  - clear the designated IRB area of swimmers
  - signal 'return to shore' to the IRB when it is safe for the IRB to return to shore.
- 

## Victim transfer





Patrol members are often required to assist the IRB crew to transfer victims from an IRB to the beach where CPR or first aid treatment can begin if required.

Refer to the [Rescue module](#) and [Victim handling techniques](#) for more information on how to perform the IRB variation of a two-person carry.

## Emergencies on patrol



- [Search and rescue operations](#)



- [Major emergencies](#)
- [Closing the beach](#)
- [Working with other emergency services](#)
- [Working with other powercraft in emergencies](#)

## Search and rescue operations

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Lifesavers may sometimes be required to take part in organised search and rescue (SAR) operations during patrol or while off duty. In some situations, they may be asked to assist in searches in unfamiliar areas away from their local surf lifesaving club or lifeguard base. An organised search may be conducted for a missing person, or group of people, either at sea or on land.

If you are the lifesaver who is first notified of a missing person, your responsibility is to:

- alert the patrol captain
- obtain as much information as possible from the informant about the missing person
- keep the informant with you at all times.

The following questions should be asked of the informant:

- a general description of the missing person, including their age, height, gender, complexion, clothing, etc
- the last known location of the missing person
- the last known time the missing person was seen
- the missing person's swimming ability (if known)
- what areas or locations have been searched already
- what areas or locations the person might go to, e.g., car, home, local shops
- whether the missing person has any known medical conditions or special needs
- whether the missing person was or could be with any other persons.

Once your patrol captain is informed of the situation and missing person details, you are likely to become a member of the SAR team. Always follow the directions of the patrol captain or the individual appointed to control the search.

If the missing person is still not found after an initial search, the police should be alerted immediately.

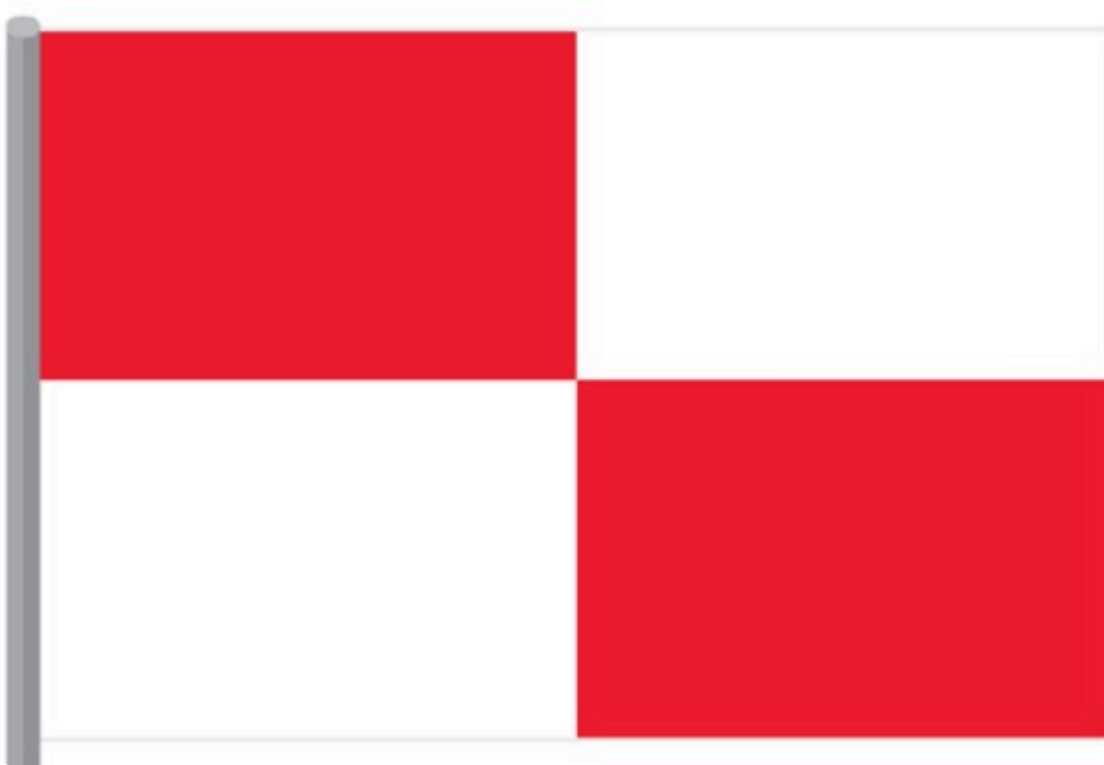
# Major emergencies



During your patrol there may be a major emergency on the beach. This might include a serious first aid situation or being called on to assist emergency services. If your patrol captain is concerned that the team does not have enough resources to maintain effective surveillance of the beach while attending to a major emergency, depending on local SOPs and legislation, they may decide to close the beach until the team is ready to provide surveillance.

# Closing the beach

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If you are required to close the beach due to the prevailing conditions or an emergency, the laws of the local authority should be followed.

Follow the steps below when closing the beach.

1. Determine whether the water area is to be evacuated.
2. Inform your surf lifesaving communication centre that you are about to close the patrolled area.
3. Activate the emergency evacuation alarm and raise the red and white quartered flag.
4. Inform everyone that the water area is being closed and give the reason for the closure.
5. Lower and remove the red and yellow patrol flags and the black and white quartered flags.
6. Post 'Swimming not advised' or 'Beach closed' signs at identified beach access points and where the flagged area was located.
7. Continually monitor all water areas.
8. Maintain minimum personnel, qualifications and equipment as per your lifesaving service agreement (LSA).
9. Maintain an active presence on the beach to advise/warn beachgoers.
10. An appropriate record should be made in the relevant logbook or operations app giving an outline of the incident.

Refer to your SLS state centre SOPs for more detailed information.

# Working with other emergency services



The various services available to a surf lifesaving club form a vital link in controlling an emergency situation effectively. You must have a good knowledge of the emergency services available in your area of operation when seeking assistance. Many emergency situations arise outside normal patrol hours, and you therefore also need to know where various pieces of lifesaving equipment are stored.

The increased development of coastal areas has led to a greater need for efficient lifesaving services. Some sections of the coast are patrolled by surf lifesaving clubs and/or lifeguard services with their inflatable rescue boats, while support such as rescue water craft, jet rescue boats, offshore rescue boats and helicopters provide coverage that overlaps and covers other gaps in service. Search and rescue support operations provide gap coverage with the ability to cover large sections of coastline and areas that are not covered by beach patrols. Let your patrol captain know if you are interested in following any SLS support operation pathways.

## Ambulance services

In many areas, the ambulance service and its paramedic team form a vital link between the first aid given by lifesaving services and the hospitalisation of an injured victim. The ambulance service's knowledge and supplementary medical equipment can have a significant positive impact on the wellbeing of an injured victim. An ambulance should be called for any incident that the patrol captain deems necessary. Refer to the *Resuscitation module* for information about victim handover to ambulance paramedics.



## Police

During major emergencies, the police will often be responsible for the coordination of emergency activities.

## Fire and rescue services

During your patrol, you may encounter a situation that requires the assistance of fire services. Like other emergency services, contact with fire and rescue services should be made through your surf lifesaving communication centre via your patrol captain. Refer to the [SLSA Guidelines for Safer Surf Clubs](#) (Chapter 3) for more information about fire safety at and around a surf lifesaving club. Also refer to the [Surf Life Saving Australia Fire Extinguisher Selection Chart](#).

**Surf Life Saving Australia Fire Extinguisher Selection Chart**



Class of Fire		A	B	C	E	F	Notes
Colour	Type of Extinguisher	Wood, Paper and Plastic	Flammable and Combustible Liquids	Flammable Gases	Electrically Energised Equipment	Cooking Oils and Fats	
		✓	✗	✗	✗	✗	Limited indicates that the extinguishant is not the agent of choice for the class of fire, but that it will have limited extinguishing capability. <b>Class D fires</b> involving combustible metal(s) use only specific purpose extinguishers—seek expert advice. Dangerous if used on flammable liquid, energised electrical equipment and cooking oil/fat fires.
		LIMITED	LIMITED	✗	✓	✗	Not suitable for outdoor use or large Class A fires. Suitable only for small fires.
		✓	✓	✓	✓	✗	Look carefully at the extinguisher to determine if it is an AB(E) or B(E) extinguisher. Special powders are available specifically for various types of metal fires—seek expert advice.
		✗	✓	✓	✓	✓	Look carefully at the extinguisher to determine if it is an AB(E) or B(E) extinguisher. Special powders are available specifically for various types of metal fires—seek expert advice.
		✓	✓	✗	✗	LIMITED	Dangerous if used on energised electrical equipment.
		✓	✗	✗	✗	✓	Dangerous if used on energised electrical equipment.
		LIMITED	LIMITED	✗	✗	✓	Fire blankets are effective for oil and fat fires that are contained, e.g., within a saucepan or deep fryer, and are effective for extinguishing clothes that catch on fire (ensure you replace after every use).
		✓	✗	✗	✗	✗	Ensure you maintain an unobstructed path between you and the nearest exit.

### How to use a fire extinguisher

Extinguishers come in a number of shapes and sizes. They all operate in a similar manner. Here's an easy acronym for fire extinguisher use:

- P** PULL THE PIN — Break seal and test extinguisher.
- A** AIM AT BASE OF THE FIRE — Ensure you have a means of escape.
- S** SQUEEZE THE OPERATING HANDLE — To operate extinguisher and discharge the agent.
- S** SWEEP FROM SIDE TO SIDE — Completely extinguish the fire.

This information comes from Australian Standards AS2444 & AS3745. As per Australian Standard AS1851, fire extinguishers must be tested by qualified people at half-yearly intervals.

## Other medical services

Other qualified medical professionals can also assist in emergencies. They may be nearby on the beach, or they may be available locally for anyone who does not want to go to hospital. You should have the contact details of any local medical services listed in your emergency contacts.

# Working with other powercraft in emergencies

## Side-by-side vehicles



You may have access to side-by-side vehicles (SSVs). Only appropriately qualified and licensed personnel should drive these vehicles. There may be local laws governing the use of SSVs on the beach, e.g., speed limits that must be adhered to.

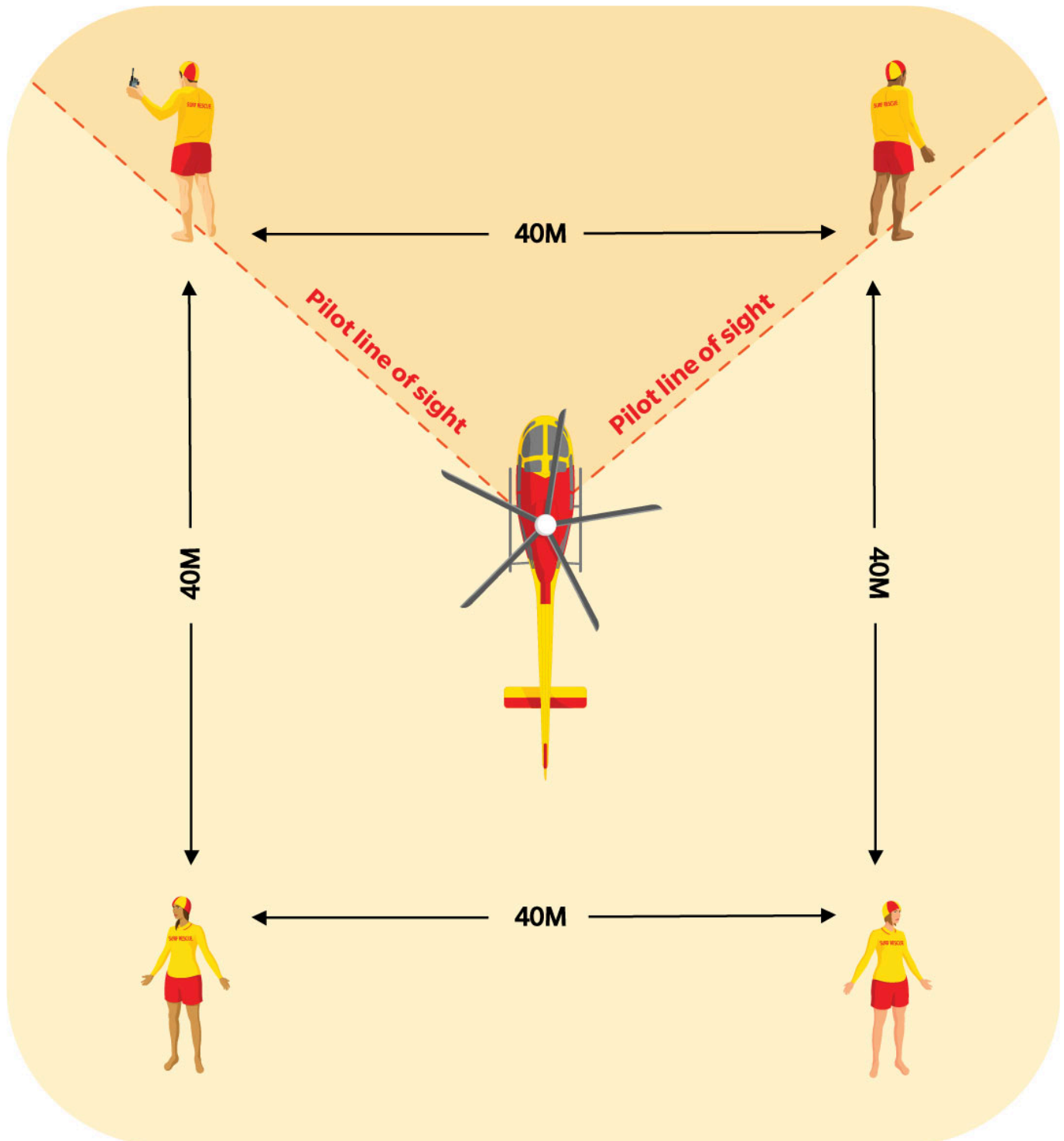
Although some SSVs may allow for safe transportation of victims, it should be remembered that it is not the vehicle's primary intended purpose. It is only permissible for a victim to be transported using an SSV under extreme circumstances where a victim is in an isolated area. This must be determined by a paramedic or the patrol captain to be safe and the most appropriate method for transportation.

## Helicopters

Where there is a possibility that a surf lifesaving club will have access to a rescue helicopter, the club should be able to establish a clear square 40 m by 40 m emergency area, preferably extending back from the water's edge, that can serve as a safe helicopter landing zone.

The patrol captain will instruct team members to mark each corner of the square emergency area with signal flags, to stand outside the landing area, as well as to keep it clear and secure. Nobody should enter the landing area for any reason during take-off or landing, while the rotor blades are turning, or

while the pilot is in the pilot seat.



The downwash from the helicopter may cause sand, grit and objects to fly around, both on the beach and in the water. Advise beachgoers and remind other SLS members to stay safe by:

- avoiding the helicopter unless directed by a patrol captain or incident controller under the guidance of the pilot
- holding equipment horizontally below the waist, e.g., rescue tubes
- securing possessions, hats, umbrellas and any other loose items so they don't fly away
- shielding their eyes and closing their mouths

- turning away from the helicopter during take-off and landing.

If you are in the water as a helicopter approaches, stay on the surface of the water to make sure the pilot is able to see you.

## Remotely piloted aircraft



Some states have introduced the use of remotely piloted aircraft (RPA), commonly referred to as 'drones' or 'unmanned aerial vehicles' (UAVs) to assist in beach surveillance and search and rescue operations.

The use of RPAs by SLS members is subject to the holding of the relevant qualification endorsed by their SLS state centre, and compliance with all relevant Civil Aviation Safety Authority (CASA) regulations.

While the use of RPAs may be undertaken privately, permission is required from your SLS state centre for any use aligned with SLS purposes in order to ensure all SLS, government and CASA requirements and laws are complied with.

Members should consult their own SLS state centre and their SOPs for more information.



# Concluding patrol operations

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Your patrol operations will finish when you hand over to another patrol to take over management of the beach, or at the end of the day, at the time designated by your lifesaving service agreement. At the end of routine patrol operations, it is important all gear and equipment is returned to 'rescue readiness' in preparation for immediate use by the next patrol.

## Team debrief

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Before your team leaves for the day, your patrol captain will conduct a team debrief. This debrief will include:

- completing all relevant reports and documentation
- confirming all SOPs were followed
- discussing how the team worked together, and any steps that could be taken to help the team improve their response in the future
- ensuring all members are aware of the availability of peer support.
- identifying any patrol team skill gaps or training opportunities that patrol team members may wish to undertake.

During this meeting, it is important that you:

- encourage and acknowledge participation by all team members
- give and receive feedback in a constructive manner
- make suggestions for continuous improvements that you think of during patrol.



## Other patrol resources

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- [Service agreements](#)
- [Standard operating procedures](#)

## Service agreements

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The standards of service provision for lifesaving or lifeguarding are covered by a service agreement. A lifesaving service agreement (LSA) is a surf lifesaving service's patrol contract with their local

government authority and sets out the service's responsibilities and commitments for providing lifesaving services to the community.

A lifesaving service agreement for lifesaving services will cover:

- the patrol season
- times of the day services are provided
- patrol strength (minimum number of people)
- equipment to be available
- minimum qualifications held by members
- the location and extent of your service.

It is very important that your lifesaving service meets their obligations under this agreement at all times.

## Standard operating procedures

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SLS has standard operating procedures (SOPs) that relate to the conduct of certain activities. These may include:

- activity zoning, e.g., keeping boardriding and swimming areas separate
- a breach of the peace
- emergencies involving body retrieval
- environmental factors such as tsunami warnings
- inappropriate behaviour
- insufficient numbers to meet your LSA
- junior activities
- lightning
- lost property
- risk management processes
- marine creatures such as marine stingers, sharks and crocodiles
- marine pollution
- media liaison
- missing person(s), in and out of the water
- opening and closing a beach
- peer support
- reports and forms
- use of SLS equipment
- use of social media
- water safety.

While your patrol captain is ultimately responsible for how the beach is effectively managed during a patrol, it is important for you to be familiar with these SOPs. They help you to monitor your own work and ensure your continued compliance with SLS requirements. They are available for all members to access through the SLS Members Area Document Library. Your SLS state centre may also have its own SOPs relating to matters specific to the region in which you patrol, such as those relating to performing stinger net drags in northern parts of Australia.

It is important to remember that there are a number of internal and external factors that will have an impact on your local SOPs, particularly the constantly changing legislation that they support. The following factors may cause changes to be made to your local SOPs:

### Internal:

- Changes to the SLS organisational structure
- The introduction of new technologies to complete work tasks
- Changes to SLS policies and guidelines

### External:

- New or amended legislation
- New or amended International Lifesaving Federation position statements
- Changes in political climate
- Changes in community expectations

Any updates to your local SOPs or the SLS policies they help you enact will be communicated via the 'news and events' menu within the SLS Members Area. You should monitor this page as this is how SLS communicates the implementation of new work practices and services as well as other important information that can impact patrol operations.

## Module 10 – Reflective Questions

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You are now ready to attempt the eLearning component of your course for this module. You can access the eLearning through the [SLS Members Area](#).

You should also test your knowledge by reading through the following reflection questions. If you find yourself answering 'no' or 'not sure' to any of them, you may wish to speak with your trainer for clarification.

1. Are you aware of the range of [patrol methods](#)?
2. Are you aware of Surf Life Saving's [standard operating procedures](#) (SOPs)?
3. Are you familiar with the range of [preventative actions](#) that you can take as a lifesaver, and of the importance of prevention vs. rescue?
4. Do you know how you can assist with [launching an IRB](#)?
5. Are you confident that you know how you can assist in [patrol set-up](#) and [pack-down](#)?



# Reflection Questions

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Now that you have read through the 35<sup>th</sup> edition Public Safety and Aquatic Rescue training manual, you should be able to complete all the eLearning components of your course. To access your eLearning log into the SLS [Members Area](#) and select the eLearning tab.

You should also test your knowledge with the following reflection questions, if you find yourself answering 'no' or 'not sure' to any of them, you may wish to go back and review the relevant content or speak with your trainer for clarification.

## Introduction to Surf Life Saving Australia

1. Are you familiar with the different ways in which Surf Life Saving works to [reduce drowning](#)?
2. Do you know how your SLS club fits into the [national organisation](#) and how decisions are made in your SLS club and state centre?
3. Are you aware of the different award pathways and [training opportunities](#) available to you?
4. Do you know who is available to support you in your role at your SLS club?

## Safety and wellbeing

1. Do you know what your responsibilities are in relation to [work health and safety](#)?
2. Are you aware of the physical and psychological [hazards](#) which you may encounter in your role in Surf Life Saving?
3. Would you know what to do if you had a safety concern or [sustained an injury](#) while volunteering?
4. Do you know the signs and symptoms of [mental ill-health](#) and would you know what to do if you observed these in yourself or others?
5. Are you aware of Surf Life Saving's [Member Protection Policy](#) and the information it contains?

## Radio operations

1. Do you understand [how radios work](#), including the purpose of channels, repeaters and networks?
2. Are you confident in your knowledge of Surf Life Saving's [prowords](#)?
3. Are you confident in your ability to use call [prowords](#), [call signs](#) and the [4 Ps](#) to communicate over the radio?
4. Would you know what to do if your radio is [dropped into water](#), or shows signs of physical damage?

## Surf awareness

1. Do you understand how the [characteristics of each beach](#) interact, determining how hazardous they are at any point in time (e.g., swell, waves, wind, rips, tide, underwater topography)?

2. Are you aware of the common features of [rip currents](#) and how to [escape one](#) if you are caught in it?
3. Do you know what considerations should be taken [before entering the surf](#)?
4. Are you confident in your use of [techniques to negotiate the surf](#) (e.g., wading, dolphin diving, bodysurfing)?

## Rescue

1. Are you aware of the range of [scanning techniques](#)?
2. Could you recognise the [difference between a distressed victim and a drowning victim](#)?
3. Are you confident in your knowledge of Surf Life Saving's [water safety signals](#)?
4. Do you know what [considerations should be made before performing a rescue](#)?
5. Do you understand the advantages and disadvantages of [different rescue techniques](#) using rescue tubes and boards as well as unaided rescues?
6. Are you confident in your ability to correctly use [rescue tubes](#) and [rescue boards](#)?
7. Do you understand the different [carries/drag](#)s that can be used to move a victim to a safe location?

## Resuscitation

1. Do you know what the ['Chain of Survival'](#) is?
2. Are you confident in your understanding of [DRSABCD](#)?
3. Are you aware of the [legal considerations](#) related to the provision of emergency care (duty of care, consent, recording and confidentiality)?
4. Do you know how to ensure that [CPR](#) effective?
5. Are you confident in effectively performing [CPR individually](#) and as [part of a patrol team](#)?
6. Are you aware of the [safety precautions](#) that should be considered when using an AED?

## Emergency care

1. Are you confident in your ability to recognise the signs and symptoms of a range of first aid emergencies?
2. Are you confident in your ability to treat a range of first aid emergencies?
3. Do you know what first aid equipment is available for your use in your club's [first aid kit](#) and what the different pieces of equipment are used for?
4. Are you confident in your ability to perform and record the results of a verbal and visual [secondary assessment](#)?
5. Would you know what treatments to prioritise and when to [call an ambulance](#) or [refer to a medical practitioner](#)?

## Communication

1. Are you aware of your role in presenting a [positive public image](#) of Surf Life Saving and how you can do this?
2. Do you know how to [communicate effectively](#), thinking about what you say, how you say it and how you look when you say it?
3. Are you aware of Surf Life Saving's [Social Media Policy](#) and the information it contains?
4. Do you know how to [disagree in a respectful manner](#) and how to provide compassionate and constructive feedback?

## Spinal management

1. Are you confident in your understanding of how to respond to and manage a [walk-up victim](#) with a suspected spinal injury?
2. Are you confident in your understanding of how to perform an [extended-arm roll](#) and a [vice grip roll-over](#), and the conditions under which each should be used?
3. Are you confident in your understanding of how to work as a team to perform a [log roll](#) and a spinal board carry?
4. Are you confident in your understanding of how to [immobilise a victim's head](#)?

## Patrol operations

1. Are you aware of the range of [patrol methods](#)?
2. Are you aware of Surf Life Saving's [standard operating procedures](#) (SOPs)?
3. Are you familiar with the range of [preventative actions](#) that you can take as a lifesaver, and of the importance of prevention vs. rescue?
4. Do you know how you can assist with [launching an IRB](#)?
5. Are you confident that you know how you can assist in [patrol set-up](#) and [pack-down](#)?

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