



SCHOOL TEACHERS AQUATIC RESCUE TRAINING

Learner Guide



Royal Life Saving

THE ROYAL LIFE SAVING SOCIETY WESTERN AUSTRALIA INC.

ABOUT THE LEARNER GUIDE

This Learner Guide has been produced by The Royal Life Saving Society Western Australia Inc. to aid participants in the course School Teachers Aquatic Rescue Training.

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All information is true and correct at time of publication.

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ASSESSMENTS

Assessment	Topic	Assessment Type
Pool Component		
1	Resuscitation Initiative	Demonstrate initiative in dealing with a non-breathing person.
2	400m Swim	Complete 200m freestyle (first) followed by a further 200m in any two recognised survival stroke. Total time is not to exceed 13 minutes.
3	Accompanied Rescue	Rescue an injured swimmer in difficulty with a flotation aid.
4	Defensive & Escape Techniques	Perform escape and defensive techniques in deep water.
5	Contact Tow	Rescue a unconscious swimmer in deep water who is 25m from safety.
6	Survival Skills	Demonstrate survival skills: Swim 200m using three survival strokes. Tread water for 5 minutes.
7	Search and Rescue	Demonstrate a search pattern in approximately 2m of water.
8	Recovery and Resuscitate	Identify a submerged casualty at the bottom of the pool 15 - 25 metres away. Recover and resuscitate the casualty.
9	Spinal Injury	Apply the vice grip for the immobilisation of a spinal injury then wade/swim with the casualty for 5m.
10	Rescue Initiative	Demonstrate initiative in effecting a rescue of 2 people who are in difficulty up to 15m from safety and whose conditions are initially unknown to the rescuer. Group scenarios, utilising 3 teachers.
Beach Component		
11	Assessing the Environment	Assess the beach using the school safety check-list.
12	Signals	Demonstrate beach water signals and other signals important to swimmers and teachers.
13	Run Swim Run	Run 100m, then swim 100m, then run 100m in a beach environment in 5 minutes.
14	Tube Rescues	Swim 25m to retrieve a conscious and unconscious casualty, correctly utilising the rescue tube.
15	Spinal Management	Apply appropriate immobilisation of a suspected spinal injury using a five man carry.
16	Rescue Initiative	Rescue Initiative in open water.
Pool And Beach		
17	Risk Management	Complete a Risk assessment.

ASSESSOR INFORMATION

The assessor will be an approved Royal Life Saving assessor holding a current Aquatic Trainer award, and relevant qualifications at the level being assessed, or higher.

DESCRIPTION OF TASK

Candidates must satisfactorily complete the assessments as outlined in the table on page 6:

- A practical resuscitation scenario.
- Identification of the use of a defibrillator.
- Theory examination, within the allotted class revision time.

ASSESSMENT REQUIREMENTS

The resuscitation assessment must be completed within class time.
The current nominal allotted time for both training and assessment is 8 hours.

ACCESS AND EQUITY

Royal Life Saving has a Building Diversity Policy that ensures that people from all groups, such as Aboriginal people, people with a disability, people from culturally and linguistically diverse backgrounds, people from rural and remote areas, mature aged people, and women, have equal opportunity to successfully complete Vocational Education and Training to gain skills and knowledge that equips them for a reasonable working life.

COMPLAINTS, GRIEVANCES AND APPEALS POLICY

Complaints:

All participants in any training or assessment activity conducted by Royal Life Saving have the right to seek redress if they believe that they have been treated unfairly or if they are not satisfied with any process or relevance of the training or assessment activity.

Grievance Mechanism:

Royal Life Saving has developed a Grievance Policy to ensure that participants and clients have access to a fair and equitable process for dealing with grievances <https://royallifesavingwa.com.au/about/privacy-policy>

Appeals Process:

Royal Life Saving has developed an Appeals Policy to ensure that participants and clients have access to a fair and equitable process for dealing with complaints regarding final assessment outcomes. Any appeal on an assessment decision must be made by the participant within 10 working days after the participant was notified of the result.

HISTORY OF RLSS AUSTRALIA AND WESTERN AUSTRALIA

The Royal Life Saving Society Australia (RLSSA) is a not-for-profit organisation that has developed into the leading water safety education organisation in Australia. Its foundation stems from the United Kingdom, where William Henry commenced water safety education in 1891 and this was adopted in Australia in 1894.

In 1924, the RLSSA was granted a Royal Charter by King George V and the official RLSSA was formed in 1934. Many aspects of the Society's operations were managed from the United Kingdom until 1957. In 1959 a supplemental Charter was granted by Queen Elizabeth II and this formally established the National Branch of the Society in Australia. A permanent national secretariat was established in 1978.

In 1984, the Society was incorporated as a public company limited by guarantee.

The Western Australian Society was formed in 1909 by a Police Sergeant in Kalgoorlie who conducted water safety education programs for people who traveled to the coast for holidays.

HISTORY OF SLS AUSTRALIA AND WESTERN AUSTRALIA

Australia's first volunteer Surf Life Saving clubs emerged in 1907 on Sydney's ocean beaches. Surf-bathing had been rapidly increasing in popularity in the early 20th century and in turn, between 1902 and 1905, by-laws which had prevented bathing in daylight hours since the 1830s were gradually removed, reflecting changing public attitudes. These changes had a dramatic impact on local beach culture as the number of beach-goers entering the surf suddenly increased. As many bathers couldn't swim, the number of drownings and attempted rescues also suddenly increased.

On October 18, 1907, representatives from Sydney Surf Life Saving Clubs, together with members of other interested groups, met to form the Surf Bathing Association of New South Wales, the organisation which is now known as Surf Life Saving Australia.

The Surf Life Saving movement in Western Australia was founded at Cottesloe Beach in 1909 (after originating at Bondi Beach in 1907) in response to a number of drowning incidents on the beach. Over the next 20 years a number of additional clubs commenced operations around the metropolitan and regional coast.

In 1926 the Surf Life Saving clubs met to determine a peak body to support and advocate on their behalf and Surf Life Saving Western Australia was born.

THE CULTURE OF START

The School Teacher Aquatic Rescue Training (START) has been developed specifically to assist school staff in obtaining qualifications suitable for supervising students participating in activities both in and around aquatic environments.

The START online learning resource is also intended to be used as a reference tool for teachers when planning aquatic activities by providing information on planning, hazard identification, supervision strategies, and links to other useful resources.

This is a joint initiative between Royal Life Saving WA and Surf Life Saving WA, using the components from the Bronze Medallion award and the Surf Rescue Certificate. Successful participants will be awarded START Certification which will give participants the confidence, skill and knowledge to supervise and participate in safe and fun water activities.

RESOURCE LINKS AND FURTHER INFORMATION

- Royal Life Saving Society WA and Australia - www.royallifesavingwa.com.au
- Surf Life Saving Australia - www.surflifesavingwa.com.au
- Bureau of Meteorology - www.bom.gov.au
- Department of planning and infrastructure - <http://www.coastaldata.transport.wa.gov.au/coastalcam/index.html>.
- Department of sport and recreation - www.dsr.wa.gov.au
- Snr First aid course RLSS
- KEEP WATCH safety message - <http://www.keepwatchwa.com.au>
- DON'T DRINK AND DROWN safety - <http://www.dontdrinkanddrown.com.au/>
- Use the Recfishwest safety - <http://www.recfishwest.org.au/fishing-in-wa/rock-fishing-safety2.html>
- Rips and currents - www.ripcurrents.noaa.gov
- www.sharksmart.com.au
- Beachsafe.org.au (Phone App)
- Water Safety (Phone App)
- Emergency + (Phone App)

ACTIVITIES THE START COURSE QUALIFIES YOU TO SUPERVISE

- School swimming carnivals.
- School camps near or on water.
- School excursions near or on water.
- Snorkelling.
- Surfing.
- Boating (not including driving/skippering).

COURSE OUTLINE

School Teachers Aquatic Rescue Training

Theory / Practical	Topic
	Introduction
Theory	Culture of RLSSWA and SLSWA
Theory	How to Call For Help in an Emergency
Theory	Water Safety and Hazards Identification
Theory	Aquatic Environments
Demonstration/Practical	Recovery Position. Demonstration and Practice of Recovery Position Variations
Demonstration/Practical	Adult, Child and Infant Resuscitation
Demonstration/Practical	Cardio Pulmonary Resuscitation (CPR) Scenarios with Ongoing Assessment (including choking)
Theory	Automated External Defibrillator Demonstration
Theory	Communicable Diseases and Hygiene
Theory	Alcohol and Recreation Aquatic Activity
Theory	Rescue Principles – Steps in a Rescue
Practical	400 Metre Swim
Demonstration/Practical	Types of Entries
Theory/Demonstration	Characteristics of a Person in Difficulty
Theory/Demonstration/Practical	Rescue Techniques (including defensive and escape techniques)
Practical	25 Metre Tow
Theory/Practical	Search Patterns
Demonstration/Practical	Recover and Resuscitate
Practical	Survival Skills
Theory / Demonstration/Practical Beach and Pool	Spinal Management
Practical Beach and Pool	Rescue Initiative
Theory Beach and Pool	Risk Management
Theory/Practical	Accident Report Forms
Beach-specific Components	
Theory	Assessing the environment
Theory	Signals
Practical	Run, swim, run
Practical	Tube rescues

Please Note: The Swimming and Lifesaving manual is available for purchase from the course instructor. The manual is Australia's most comprehensive Swimming and Lifesaving manual covering all theoretical and practical aspects of water safety, personal survival, lifesaving and emergency care. The sixth edition of the Swimming & Lifesaving textbook is the preferred reference book for all students undertaking lifesaving training.

LEGAL CONSIDERATIONS

CONSENT

Consent should be sought from the casualty whenever possible prior to applying first aid. Treatment given without the person's consent could be constituted as **assault**.

Consent can be implied or expressed:

- It is implied when a person attends a first aid room for treatment.
- Consent is expressed when **oral or written** permission is given.

In some circumstances a person **cannot** give consent for treatment:

- If the casualty is unconscious.
- If the casualty is a child or has a severe intellectual disability.
- Where injury or illness has affected the person's ability to make an informed choice.

In these cases, consent is implied; spoken or written consent is not required and a qualified person may administer any necessary treatment to save the person's life or to prevent serious illness or further injury. If the casualty is under 18 years, and if possible, **obtain consent from the parent or legal guardian**.

DUTY OF CARE

In the case of an emergency, the law does not require a first aider to render assistance unless that person already **owes a duty of care** to the injured or ill person (for example, a school teacher responsible for their students). Once first aid is commenced, a **duty of care** has been established. If a person in your care becomes ill or injured, you must help them by doing something within the scope of your training that assists that person. The first aider who has established duty of care must apply their first aid skills and knowledge in a **responsible and reasonable manner**.

NEGLIGENCE

Negligence is the most likely allegation in a lawsuit. Negligence refers to carelessness, or the failure to behave in the manner accepted by the community when dealing with others. The key concern is determining if fault exists in the legal sense.

A court will look at all the circumstances to determine what is reasonable in any given situation. Upon rendering assistance, a person is under a duty of care to do everything reasonable in the circumstances. A first aider will be judged according to the level of first aid training, their responsibilities and experience, and the conditions that prevailed at the time.

RECORDING

In the event of any dispute, it will be helpful to the first aider to have a record made at the time of the incident. The importance of accurately recording and retaining written facts can not be underestimated. When authorities investigate serious accidents, all written details are carefully examined. Such records are referred to and used as evidence at inquests and court cases.

The following guidelines may be of assistance in the preparation of a first aid report:

- Write in ink only.
- Sign and date any alterations.
- Do not use correction fluids.
- Keep the contents strictly confidential, clear and concise.
- Make sure that the record is factual and based on your observations.
- Have a witness sign it.
- Where appropriate, refer to individual school policy.

First Aid Report

Date: / / Time: : am pm

Victim's name: male female Age:

Victim's phone number: -

Your name:

Your phone number: - Signature:

Consent for first aid:

Yes
No
Guardian consented
Unconscious
Minor without guardian

Contacted EMS: yes no Time: : am pm

Contacted other service: yes no Time: : am pm

What service? -

You can find an example of an incident report template on page 42 of this booklet

THE GOOD SAMARITAN

Volunteers are generally protected if acting in a bona fide manner, and do not need to fear litigation if they come to the aid of a fellow human in need. No 'Good Samaritan' or volunteer in Australia, or elsewhere to our knowledge, has ever been successfully sued for consequences of rendering assistance to a person in need.

A '**Good Samaritan**' is defined in legislation as a person who in good faith and without expecting payment or other reward comes to the aid of an injured, apparently injured, or person at risk of injury, with assistance or advice. Volunteers acting as 'Good Samaritans' are under no legal obligation to assist a fellow being, however, the RLSS encourages the provision of assistance to any person in need. Having decided to assist, a standard of care appropriate to the rescuer's level of training is expected.

HOW TO CALL FOR HELP

When possible, the person with the best first aid knowledge should stay with the casualty while someone else calls for the emergency assistance.

1. To call for the Ambulance, Police or Fire Service, use 000 from all phones, including mobiles. Mobiles just need to have a signal to **any** network service (evident when 'emergency calls only' is displayed on your phone) and do not need credit to be able to dial 000.
2. When the emergency operator answers, state clearly which service is required.
3. Stay calm and speak clearly to convey the message. Be ready to answer any questions.
4. You will be asked to state the following:
 - The exact address or location with any clear landmarks or closest street cross reference. Use GPS (Global Positioning system) if possible.
 - An outline of the emergency.
 - The number of casualties involved.
 - Any information about the condition of the casualty(s) particularly the 4 B's – Breathing, Bleeding, Burns, Bones.
 - Any hazards relevant to the area, such as fire, chemical, spill, fumes, water or electricity.
 - The telephone number where the caller can be contacted in case further information is needed.
5. Stay on the line and wait until the operator tells you to hang up.
6. Ask someone to stay in a prominent position to direct the emergency service vehicle to the correct area.



Resuscitation and First Aid



DRSABCD

D – DANGER

Assess the scene for danger to yourself first.

If you end up injured, you may be unable to help the other casualties.

Are there bystanders who could be injured?

Ask them to move away from the scene if you can't use them to assist you.

Is there danger to the casualty?



R – RESPONSE

Begin to assess the casualty for a response as you walk towards them. For example: are they making eye contact, are they crying and asking for help.

Types of response

A	alert	responds to your presence, may have some confusion or disorientation; will have some motor body function
V	voice	makes some type of response when you talk to them: grunt, moan or a movement of limb
P	pain	response to pain stimulus, or squeezing fingers/shoulders
U	unresponsive	“unconscious” is recorded if the casualty does not give any eye, voice or motor response

Levels of consciousness

- **Conscious** - Person responds normally to your questions, makes eye contact, obeys commands (e.g. “Take a deep breath for me.”).
- **Semi-conscious** - Person may respond with some sounds, inappropriate answers, may respond slowly or inappropriately to commands.
- **Unconscious** - No response from casualty either verbally or physically.

S – SEND FOR HELP

- Act as soon as you realise you may need further assistance.
- Follow the procedures outlined on page 13, 'How to call For Help'
- Where possible, the person with the best first aid knowledge should stay with the casualty while someone else calls for the emergency assistance.
- If you don't have a phone, ask a bystander for one, or check if the casualty has one. You will be able to make an emergency call without needed a password or special access.
- Enlist any (competent) bystanders to assist you - send someone to call an ambulance, collect a defibrillator, pick up a first aid kit, or redirect onlookers.



A – AIRWAY

DO NOT TILT THE HEAD WHEN CHECKING THE AIRWAY

Open the mouth and look inside for any foreign matter.

If foreign matter is seen, roll the casualty onto their side and then remove the foreign matter by scooping downwards with their own fingers.

If a casualty has been removed from the water, they should be positioned on their back to assess airway and breathing.

Once you have cleared any foreign material from the airway, or if there is no foreign matter detected, a head tilt should be applied to open the airways and assist breathing. The most common cause of airway obstruction is the tongue; tilting the head will lift the tongue away from the airway.



HEAD TILT AND JAW SUPPORT

The head tilt can be achieved by placing one hand at the top of the head (hair line) and the other on the chin (pistol grip), and gently tilting the head back.

When assessing an **infants** airway (12 months and under), the head is kept in a **neutral position**. Tilting the head of an infant may damage their delicate throat tissue.



B – BREATHING

Maintain head tilt and jaw support when checking for breathing.

Check for breathing: **Look, Listen, Feel for 10 seconds**

Look down the chest, listen for breath and feel it on your cheek.
Rest your hand on the person's diaphragm and feel for breathing.

A minimum of 2 breaths within 10 seconds need to be recognised for normal breathing.

If **normal breathing** is **NOT** present, **start CPR.**



ABNORMAL BREATHING

- Excessively fast or slow.
- Bubbling, gurgling, or absence of breathing.
- Shrill, harsh, wheezing, or high pitched breathing.
- Gasping.

Agonal breathing - The body is trying to draw oxygen into the lungs, the person is not breathing normally. This is commonly seen as the last few breaths a person may take. It is generally seen in cardiac arrest casualties.

Rescue breathing:

Maintain head tilt and jaw support when rescue breathing.

Infants (12 months and under) head is kept in a neutral position when assessing and providing breaths. Provide breaths as puffs – air that is in your cheeks.



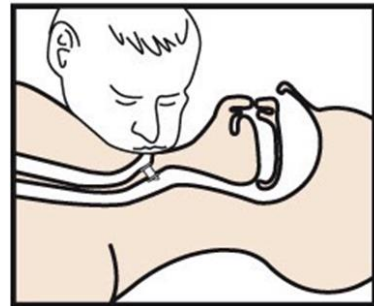
The following techniques can be applied to effect rescue breathing on a casualty:

Mouth to Mouth – Open the casualty's mouth and cover it with your mouth. Seal the nose with your cheek, or with a nose pinch.

Mouth to Mask – Use a resuscitation mask to provide a barrier. Ensure correct head tilt is maintained and apply adequate pressure on the mask to maintain a complete seal.

Mouth to Nose – Close the casualty's mouth using the pistol grip and seal the nose with your mouth. Apply rescue breathing as normal.

Mouth to Stoma – A person who has had a laryngectomy may breathe through a small hole in their neck. Simply create a seal over the stoma with your mouth and apply rescue breathing.



COMPLICATIONS OF RESCUE BREATHING

If the **chest does not rise**, check:

- Head tilt and jaw support.
- Mouth and nose seal.
- Any obstruction of the airway.
- Adequate volume of inflation.

Vomiting is an active process, often indicative of recovery, while **regurgitation** is a passive process involving the outflow of stomach contents. If a casualty begins to vomit or regurgitate:

- Turn the casualty on their side.
- Clear the mouth using a finger sweep.
- Check for breathing.
- If no breathing is present, continue CPR.

If there is **air in the stomach**, it may be caused by a partially blocked airway or over inflation:

- Check the head tilt and jaw support.
- Reduce the volume and force of inflation.

RECOVERY POSITION

A casualty who is **unconscious** on their **back** and **breathing MUST** be placed in the **recovery position**.

One method to perform recovery position, for a casualty on their back:

- The direction you are rolling the casualty, extend their arm to 90°. (Image 1)
- The arm closest to you, place across the casualty chest. (Image 1)
- The leg closest to you, lift the casualty knee. (Image 1)
- Place your hand under the casualty shoulder and on the bent knee and push the casualty away from you until they are in the position. (Image 2)
- Bring the casualty leg up and tilt the head back to open the airway.



Image 1

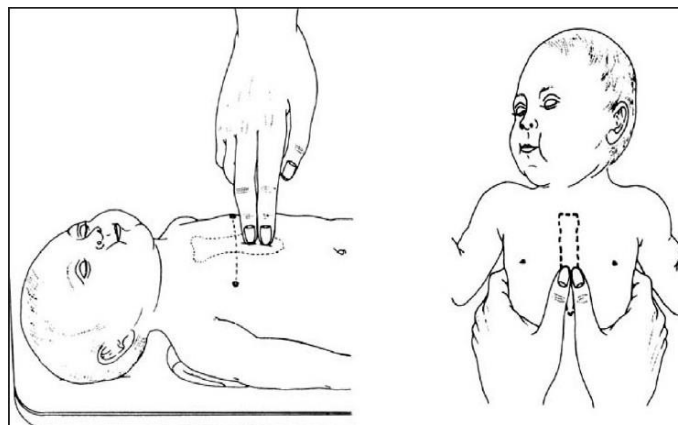


Image 2

C - COMPRESSIONS

The location of the **compression point** is in the centre of the chest or lower half of the sternum. This can be found by direct visualisation.

Compressions should always be **1/3 of the depth of the chest** of the casualty.



- The rate is approximately **2 compressions every second** or **100 – 120 per minute**.
- The ratio is **30 compressions:2 breaths**.
- The rescuer should complete approximately **5 rounds** of 30:2 in **2 minutes**.

If another first aider is available complete a maximum of 2 minutes of compressions and swap over. Continue swapping every 2 minutes to ensure compressions remain effective.

TWO OPERATOR RESUSCITATION

If a second person is available to assist, you should first instruct them to call for help (if not already done), and locate a defibrillator (if in an area likely to have one). Once the second rescuer returns:

- Continue 1 operator CPR as you instruct them how to perform the compressions.
- Guide their hand placement and help them count / obtain a rhythm.
- Once competent, 2 operator CPR can be performed with one person completing each role, i.e. one delivering rescue breaths, and one delivering compressions.
- Swap the compressions role every 2 minutes to ensure compressions remain effective. The person delivering rescue breaths should remain in the same position (head) at all times.



RESUSCITATION DURING PREGNANCY

When resuscitating a casualty believed to be pregnant, complications may occur as a result of pressure from the baby on the expectant mother's stomach, major blood vessels, diaphragm and lungs. To provide an optimal situation for resuscitation, padding should be placed under the right buttock of the casualty, to create a 'left lateral tilt', reducing pressure on blood vessels and therefore providing unrestricted flow of blood back to the heart.



D – DEFIBRILLATION

Defibrillation refers to an electric shock delivered across the heart, a process designed to resume the coordinated rhythm and pumping action of the heart in certain situations.

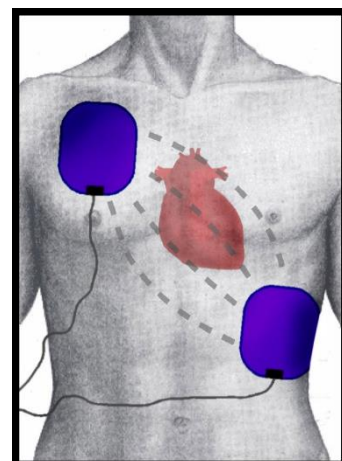
It is an effective treatment for **Ventricular Fibrillation (VF)** and pulse-less **Ventricular Tachycardia (VT)**.

Ventricular Tachycardia is rapid heart rhythm that originates in one of the ventricles of the heart. It is a life-threatening arrhythmia. It may lead to ventricular fibrillation, asystole, and sudden death.

Ventricular Fibrillation is a cause of cardiac arrest and sudden death. The ventricular muscle twitches randomly, rather than contracting in a coordinated fashion.

When applying an Automatic External Defibrillator (AED):

- **Do not stop CPR** to place the AED on the casualty.
- Move jewellery, cut all clothing off the top half including bras. Be mindful of dignity for casualty and cover their chest if able.
- Place pad under pace maker or 10cm away.
- An AED **can** be used on wet surfaces, metal surfaces and pregnant casualties.

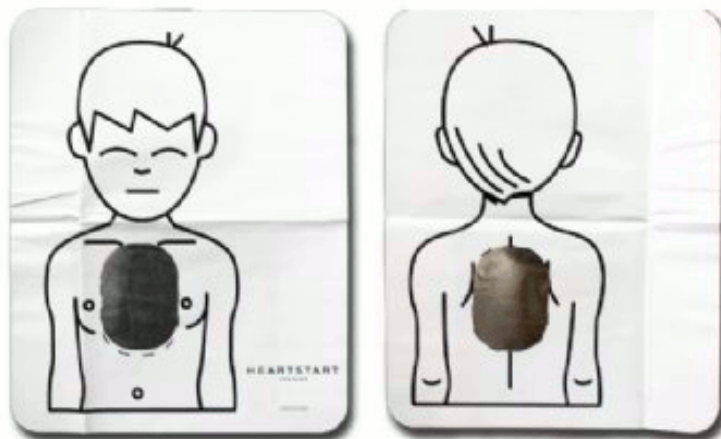


AED PADS AND PLACEMENT

- **0 – 1 Years** - No defibrillation is recommended, commence CPR, call 000 and follow their directions.
- **1 - 8 years** - Paediatric pads and an AED with a paediatric capability should be used (50 joules). When analysing infants or children the AED will automatically calculate and adjust the shock voltage to suit the patients' weight and chest wall thickness.
- **8 years and older** - Standard adult AEDs and pads are suitable for use in children older than 8 years (150 joules).



If the AED does not have a paediatric mode or paediatric pads then the standard adult AED and pads can be used as per the ARC guidelines. Ensure the pads do not touch each other on the child's chest.



If the pads are too large use in the front-back position (anterior-posterior): one pad is placed on the upper back (between the shoulder blades) and the pad on the front of the chest, if possible slightly to the left.

RESUSCITATION CHART

The following chart is a guide of the technique and timings required to resuscitate adults, children and infants.

	Adults & Children	Infants
Head Tilt	FULL	NEUTRAL
Hand Placement	CENTRE OF CHEST	
Ratio	30:2	30:2
Compressions per min	100 - 120	
Compression Depth	1/3 OF CHEST	
Technique	2 HANDS	2 FINGERS
Breaths	Full – 1/2	Puff

When can you stop CPR?

CPR should be continued until:

- The casualty begins **normal breathing**.
- When an ambulance arrives and an officer **instructs** you to stop.
- To continue will place yourself **in danger**.
- You **physically cannot continue** e.g. exhausted.

CARDIAC ARREST AND THE CHAIN OF SURVIVAL

Cardiac arrest is caused when the heart's electrical system malfunctions. In cardiac arrest, death results when the heart suddenly stops working properly. This may be caused by abnormal or irregular heart rhythms called arrhythmia's (irregular heart beat).

The chain of survival describes the sequence of critical intervention stages in the initial care of a Cardiac Arrest Patient.

The critical stages are:

- **Early Call for Help:**
It is essential to attend the casualty and call for help as soon as possible.
- **Early CPR:**
This will increase the casualty's chance of survival by encouraging oxygenated blood flow to the brain.
- **Early Defibrillation:**
The restoration of an adequate heart rhythm is necessary for the casualty to survive a cardiac arrest.
- **Post Resuscitation Care:**
Transportation of the casualty to hospital by ambulance should not be delayed to enable further treatment and monitoring of their condition.



SECONDARY SURVEY

Once a Primary Survey has been carried out and any breathing, circulation and/or severe bleeding issues have been controlled, a Secondary Survey is required.

A Secondary Survey is designed to determine if the casualty is suffering from any other injuries that require treatment. You should complete a full Secondary Survey of a casualty before treating the injuries so you can prioritise them from most life threatening to least life threatening injuries.

- Conduct a physical and verbal check of the casualty.
- Always wear rubber gloves and check your hands regularly for blood or fluid. Note any pain responses.
- Do not allow the casualty to move during the survey.
- Speak calmly and reassuringly to the casualty and ask them or a bystander (if appropriate and known to the casualty) relevant questions, such as:
 - **Symptoms** - What is their chief complaint, or causing them the most concern? Where do they feel pain or alternative sensations?
 - **History** - What happened to cause this injury? Any previous injuries? (this will give an indication to possible new injuries)
 - **Allergies** - What are they allergic to? How do they react?
 - **Medications** - What medications are they taking? How much/how often?
- Check the pulse rate and note the breathing rate and characteristics.



- Check for a medic alert bracelet / necklace or even a tattoo.
- Record information as appropriate.
- Ensure that you check the casualties back for injuries and bleeding as well.
- If rolling a casualty into the recovery position, ensure that you have removed keys and other objects out of their pockets so that damage or further injury is not caused.

General After Care:

- If the incident occurs outside the casualty may need protection from the weather.
- No food or drink should be given to the casualty.
- If necessary, keep the casualty warm with blankets or other coverings.
- Monitor. If signs of life disappear, (re)commence CPR.

CARDIAC EMERGENCIES

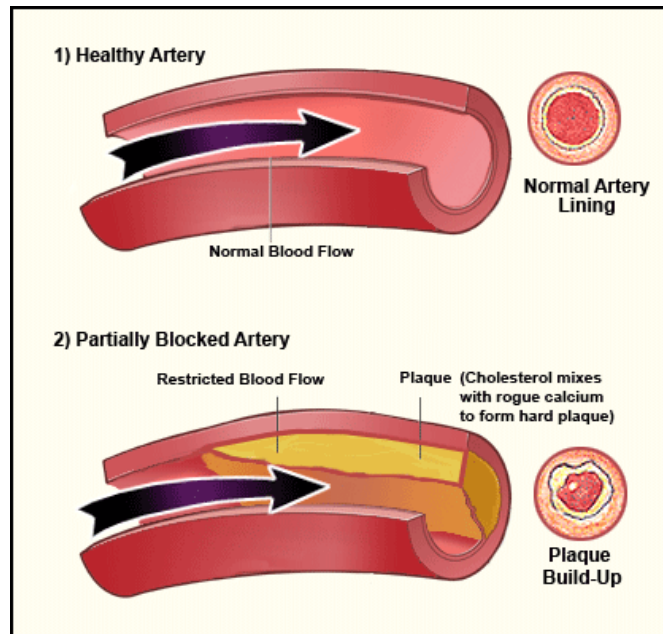
ANGINA AND HEART ATTACK

Angina can occur when the casualty has a narrowing of the arteries that supply oxygenated blood to the heart. Symptoms are often triggered by exertion and exercise.

A heart attack results from the damage caused to the heart muscle due to lack of oxygen, usually due a blocked blood vessel. The severity depends on the location of the blockage.

Signs and Symptoms:

- Mild, moderate or severe crushing chest pain (may radiate to the neck, jaw, shoulders, the back, either or both arms).
- Shortness of breath.
- Pale, cold & clammy skin.
- Sweating.
- Nausea/vomiting.
- Sudden collapse.



CONGESTIVE HEART FAILURE

Congestive Heart Failure is a condition where there is permanent damage to the heart muscle, resulting in reduced efficiency in pumping blood. This, in turn, can lead to many complications in other areas of the body.

Signs and symptoms:

- General tiredness and shortness of breath during exercise.
- Coughing, wheezing, gurgling.
- Swollen feet, ankles.

Treatment for Cardiac Emergencies:

- Rest & reassure the casualty.
- If known angina, assist with prescribed medication. Call 000 if there is no evident benefit after 10mins, or the casualty deteriorates.
- Call 000 straight away for a suspected heart attack.
- Consider aspirin (1x300mg) every 4 hours, if casualty is not on anticoagulants, not asthmatic and not allergic to aspirin.
- Prepare for CPR.
- Seek a defibrillator.

CHOKING

Choking refers to difficulty breathing due to **mild** or **severe blockage**.

Mild Airway Obstruction – Depending on the severity of the blockage, airflow may still pass in and out, the casualty may be able to talk.

Signs and Symptoms:

- Difficulty breathing.
- Coughing or gasping.
- Clutching at throat.
- Red face and watering eyes.
- Anxiety and agitation.

What to do for a Mild Airway Obstruction:

- Assess severity.
- If an effective cough is present, encourage coughing.
- Rest & reassure.
- Call an ambulance if they are unable to cough object out.

Severe Airway Obstruction - there is no airflow in or out and they are unable to talk

Signs and Symptoms:

- Silent.
- Clutching at throat.
- Frantic or quiet.
- No air is getting into the body.
- May collapse.

What to do if conscious:

- Call 000.
- 5 back blows.
- 5 chest thrusts.
- Alternate if unsuccessful.

If Unconscious:

- Call 000.
- Commence CPR.



SHOCK

Shock is a loss of effective circulation which leads to a lack of oxygen and nutrients being delivered to the tissues, leading to organ failure.

Some of the main causes of shock are:

- Loss of blood volume (hypovolemic shock).
- Severe blood loss.
- Burns.
- Excessive sweating and dehydration.
- Diarrhoea and vomiting.
- Major or multiple fractures or trauma.

Cardiac problems (cardiogenic shock).

- Heart attack.

Abnormal dilation of blood vessels (distributive shock).

- Severe infections.
- Allergic reaction.
- Severe brain/spinal injuries.

Signs and symptoms include:

- Pale, cold & clammy skin.
- Restlessness.
- Dizziness.
- Nausea.
- Anxiety.
- Thirst.
- Rapid but shallow breathing.
- Change in body temperature (typically feeling too cold).
- Change in conscious state.

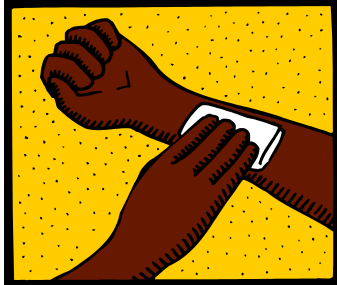
Management for a casualty suffering from shock:

- If unconscious, follow basic life support procedures.
- Treat the cause (e.g. bleeding, fracture, burn, fluid loss).
- Protect the casualty from extremes of temperature.
- Call for ambulance.

BLEEDING

EXTERNAL BLEEDING

Blood is lost from the blood vessels through a break in the skin barrier.



Management:

Rest the casualty and apply direct pressure to the wound.

- Have the casualty apply pressure directly onto wound using a sterile pad.
- Apply a pressure bandage over the pad & bandage toward the heart.
- Check circulation by applying pressure to the nail bed and watch colour return.
- Continue to monitor the casualty and treat for shock.
- Seek medical attention if blood loss is severe or is continuous.

INTERNAL BLEEDING AND ABDOMINAL INJURIES

Blood is lost from the blood vessels into the open spaces of the body.

Recognition:

- Rapid and weak pulse.
- Rapid and gasping breaths.
- Signs of internal bleeding could be frothy red blood coughed up from the lungs, red or rust-coloured urine or dark faeces (like tar).
- Pain, tenderness and discolouration at site.
- Anxiety or restlessness.
- Nausea or vomiting.
- Bruising and/or swelling to site.

Management:

- Call 000.
- Rest and reassure the casualty.
- Lay the casualty down.
- Cover the casualty.
- Monitor conscious state.

CONVULSIONS AND SEIZURES

FEBRILE CONVULSION

Febrile convulsions are a form of seizure in infants or young children, due to overheating. They are usually caused by a spike in temperature associated with infection or fever.



SEIZURE

A seizure is caused by the 'misfiring' of electrical activity in the brain, interrupting the normal flow of information. While usually associated with epilepsy, seizures may also occur with any injury or illness that affects the brain, e.g. hypoxia, hypoglycaemia, head trauma, some poisons/drugs.

Signs and Symptoms:

- Absent seizure – persistent state of 'staring' or 'daydreaming'.
- Partial – continual twitching or repetitive muscular movements.
- Tonic-Clonic (Generalised) – forced cry, full contraction of muscles, frothing at the mouth, loss of bladder or bowel control, clenching of jaw.

Management:

- Protect them during the seizure by removing any objects that may cause injury to the casualty.
- **DO NOT RESTRAIN** casualty.
- Assess the casualty's level of consciousness.
- Attempt to protect the head from injury.
- Reassure and comfort the casualty.
- Place into recovery position, allow casualty to sleep if exhausted following seizure—continually monitor ABC.

Call for medical assistance for any of the following situations:

- The seizure lasts for more than 2 minutes or repeated seizures occur.
- An injury occurs.
- The casualty is pregnant, diabetic, an infant or child.
- There is no previous history of seizures.
- The seizure occurs in water.
- The casualty remains unconscious.
- Resuscitation has been performed.
- If in any doubt.

ALTERED CONSCIOUS STATES

An altered conscious state is caused by an injury or illness that somehow affects the brain. This can be as a result of external influences (e.g. trauma, temperature change), or internal influences (e.g. medications/drugs, blood sugar levels).

Fully Conscious: Responds normally to questions or requests.

Semi-Conscious: Partly responsive, shows confusion, disorientation.

Unconscious: No response at all to command or touch.

DIABETES

Diabetes is a medical condition where the body struggles to maintain normal blood glucose levels due to an irregularity in the production of insulin.

Hypoglycaemia refers to **low** blood sugar levels (blood glucose levels). This occurs when blood glucose drops below normal levels.

Hyperglycaemia refers to **high** blood sugar levels, due to low insulin production or ineffective insulin production.

	Hypoglycaemia (Low BSL)	Hyperglycaemia (High BSL)
Signs and Symptoms	<ul style="list-style-type: none">Altered conscious state.Pale, cold & clammy skin (moist).Rapid pulse.Sweating / shaking.Unconsciousness.	<ul style="list-style-type: none">Deep & rapid breathing.Fruity acetone breath.Abdominal pain.Nausea/vomiting.Warm/dry skin & sunken eyes.Drowsiness/coma.
Rate of change / onset	<ul style="list-style-type: none">Rapid	<ul style="list-style-type: none">Slow

Management:

- If conscious give the casualty something sweet (cordial, juice, lollies).
- Call 000 if no improvement or casualty deteriorates.
- Call 000 if hyperglycaemia is suspected and monitor ABC.
- If unconscious, place the casualty on their side and monitor ABC. An ambulance should be called at this stage.
- Reassure the casualty frequently during recovery because they may be confused until fully recovered.

Important Note!

The signs and symptoms of too much sugar and too little sugar can be very similar. It is always best to assume a low blood sugar is present (hypoglycaemia) because that is the more serious condition and is more likely to occur than a high blood sugar level.

HEAT INDUCED ILLNESS

HEAT EXHAUSTION

Heat **Exhaustion** occurs when the body temperature rises above normal and the casualty becomes slightly dehydrated, due to the constant loss of water through perspiration.

Signs and Symptoms:

- Muscle cramps, dizziness and weakness.
- Cool and clammy skin, becoming flushed and red.
- Headache, nausea and vomiting.
- Rapid and weak pulse.
- Rapid and noisy breathing.
- Shock and heavy sweating.

Management:

- Stop the person from continuing with the activity.
- Lay in cool place, loosen tight clothing or remove excess clothing.
- Sponge body with cool water, fan to cool.
- Give sips of water if casualty is fully conscious.
- Apply wrapped ice packs to armpits, groin and head/neck area.
- If casualty vomits or can't keep fluids down, or is not improving – seek medical attention.
- If unconscious – call for medical attention, place casualty in recovery position and monitor ABC's.

HEAT STROKE

Heat **Stroke** occurs when the body is overwhelmed by heat and eventually vital organs stop functioning.

Signs and Symptoms:

- Sweating stops.
- Rapid rise in body temperature.
- Altered consciousness.
- Convulsions/seizures.
- Body systems shut down.
- Shock.

Management:

- Seek urgent medical attention.
- Cool the body – place in cool environment, moisten skin and fan.
- Give sips of water if conscious (not too cold).
- Minimise shock.
- Apply wrapped ice packs to armpits, groin and head/neck area.



COLD INDUCED ILLNESS

HYPOTHERMIA

Hypothermia occurs when the body temperature drops below normal, usually due to environmental exposure.

Signs and Symptoms:

- Shivering (may stop in later stages).
- Pale, cool skin.
- Slow, irregular pulse or breathing.
- Irritable, irrational or confused behaviour.
- Apathy and decreasing levels of consciousness.
- Abnormal coordination and slurred speech.
- Coldness, numbness, cramps.

Management:

- Move to warm, dry place if possible.
- Seek medical attention urgently.
- Warm casualty gradually.
- Give warm fluids if fully conscious.
- Stay with casualty.
- DO NOT give alcohol.
- DO NOT rewarm too quickly.
- DO NOT rub or massage the casualty.



Body Temperature Chart	
26	Unconscious
29	Hypothermia
32	Very cold (Stop shivering)
35	Cold
37	Normal
37-39	Fever/ heat exhaustion
40	High fever/ heat stroke
42	Unconscious

BITES AND STINGS

A poison is any substance which damages tissue or cause illness. Those poisons which are made by living organisms are called toxins. Toxins which are introduced into the casualty by injection (e.g. via fang or sting) are called venoms.

Signs and Symptoms (general, including snake and spider bites):

- Nausea, vomiting and diarrhoea.
- Headache.
- Double vision.
- Drowsiness.
- Pain or tightness in the chest or abdomen.
- Giddiness or faintness.
- Bruising.
- Sweating.
- Breathing difficulties.

General management table:

Use:	Heat	Ice	Vinegar	P.I.T
To treat bites/stings from:	<ul style="list-style-type: none"> ➤ Stone fish ➤ Stingray ➤ Bull rout ➤ Blue bottle ➤ Cobbler ➤ Sea urchin ➤ Anything with spines 	<ul style="list-style-type: none"> ➤ Red back ➤ White tail ➤ Bees ➤ Centipede ➤ Scorpion ➤ Jellyfish (below the tropics) 	<ul style="list-style-type: none"> ➤ Box Jellyfish ➤ Irukandji ➤ All jellyfish stings above the tropics 	<ul style="list-style-type: none"> ➤ Funnel web ➤ Snakes ➤ Blue ringed ➤ Cone shell
Primary goal:	Pain management	Stop swelling, pain management	Preserve life	To slow down poison, preserve life



Blue-ringed octopus and cone shell:

Specific signs/symptoms:

- A painless bite site.
- Numbness of lips and tongue.
- Progressive weakness of muscles used for breathing.



Management:

- Seek medical aid immediately.
- Rest and reassure the person, monitor ABC.
- If breathing difficulties develop, commence rescue breathing.
- Use the Pressure Immobilisation Techniques on the area if possible.

Stingray/spined fish:

Specific signs/symptoms:

- Intense pain, leading to irrational behaviour.
- Swelling, sometimes grey/blue discolouration.
- Open wound, bleeding.
- Embedded barb.



Management:

- Seek medical aid.
- Leave any embedded objects in the wound; pad and apply pressure around the object.
- Bathe the area in water as hot as the casualty can tolerate, being careful not to burn the area.

Jellyfish:

The following information relates to jellyfish:

Tropical: jellyfish (chironex) and the irukandji. See ARC Guidelines (for treatment use vinegar if available).

Non-Tropical: blue bottle, jumbles (WA stinger).

Generally, jellyfish stings outside the tropics can be treated in the following manner:

- Rest and reassure the casualty; monitor.
- If there are tentacles on the skin, gently pick them off the tweezers or fingers, or wash off with water.
- Apply cold packs over the stung area. Continue until pain is relieved.
- Do not rub the area.
- In severe cases seek medical aid.



PRESSURE IMMOBILISATION TECHNIQUE – P.I.T.

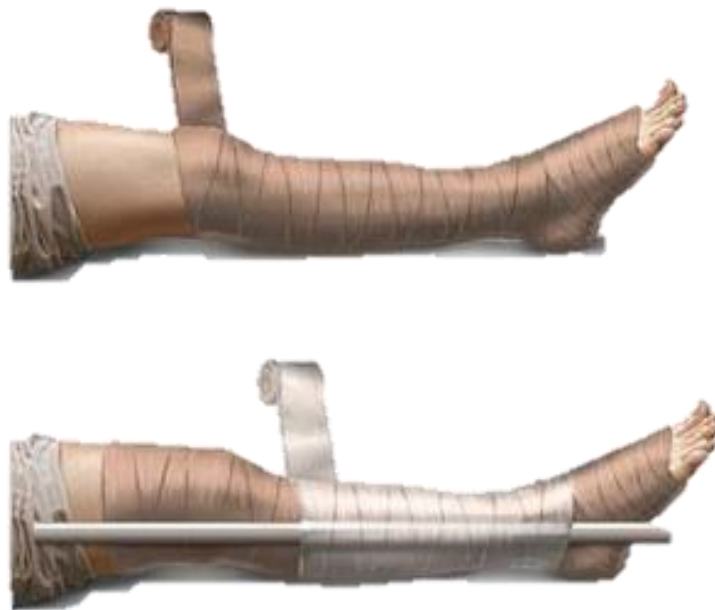
- Apply elastic bandage over site to maintain pressure.
- Firmly bandage entire limb from extremities up.
- Check circulation.
- Immobilise limb with splint or sling and rest casualty.
- DO NOT move the casualty unless necessary.
- Call 000; bring transport to the casualty.
- Monitor ABC.

Note:

If the bite is not on a limb, attempt to apply firm pressure without restricting breathing or chest movement. Do not apply firm pressure if the bite is on the casualty's head or neck; seek urgent medical assistance.

Do NOT:

- × Cut the bitten area, or attempt to suck the venom out.
- × Wash the bitten area.
- × Apply an arterial tourniquet.



ANAPHYLAXIS

Allergies can be described as the body's immune system 'overreacting' to a foreign substance; in most cases these reactions are localised, resulting in redness, swelling, itchiness or hives.

Anaphylaxis (or anaphylactic shock) is a severe systemic allergic reaction that may be triggered by exposure to a number of substances such as:

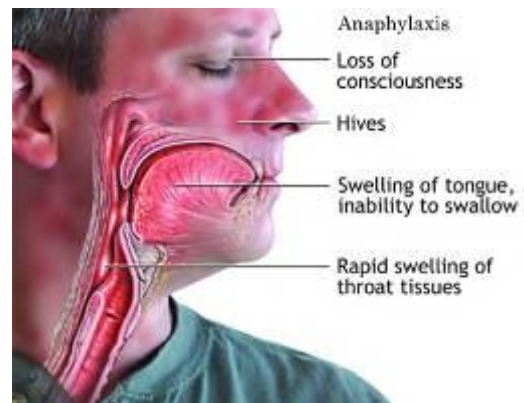
- Peanut products.
- Seafood products (particularly shellfish).
- Eggs.
- Bee stings.
- Medication (e.g. penicillin).
- Latex.



An anaphylactic reaction will usually occur within minutes of exposure, however in some rare cases can be delayed up to several hours.

Signs and Symptoms:

- Swelling, particularly around the airways.
- Difficulty breathing (could be evident through wheezing/coughing).
- The appearance of hives/rash or change in skin colour.
- Increased heart rate.
- Change in conscious state.



The recommended treatment for anaphylaxis is the administration of adrenaline. Many individuals known to be prone to severe allergic reaction will carry an auto-injector device (such as EpiPen or Anapen), which contains a single dose of adrenaline (0.3mg for adults, 0.15mg for children).

Management:

- Call 000.
- Stay with the casualty & ensure total rest.
- Rest & reassure – follow the person's allergy action plan (if available).
- Assist them to take any medication they may have (if they have an EpiPen).
- Be prepared to commence CPR.

It is important to note that even after a dose of adrenaline, the signs and symptoms may return – constant observation and medical attention is essential.

HOW TO ADMINISTER AN EPIPEN



1.



Form fist around EpiPen and pull off the grey or blue cap.

2.



Place black or orange end against the outer mid thigh.

3.



Push down **FIRMLY** until a click is heard or felt and hold in place for **10 seconds**.

4.



Remove EpiPen and be careful not to touch the needle. Massage the injected site for 10 seconds. Return EpiPen into case.

Note: Anapens are of a similar action although you click a trigger at the top of the pen once it is against your leg to fire the needle, injecting the adrenaline.



INCIDENT REPORT (EXAMPLE)

First Aid Casualty Information Report

Name of Casualty:		Date:
Location of Accident:		Time of Accident: am / pm
Ambulance called:	Yes <input type="checkbox"/> No <input type="checkbox"/>	Time Called: am / pm
Report Completed by: Name (Print):		Contact Details:
Signature:		Contact Ph No:

Mechanism of Accident: (✓ appropriate boxes)

Crush Fire Explosion

Chemical Drowning

Fall Height of Fall: metres

Velocity Estimated Speed: kms

Other Please identify:

Primary Assessment: (✓ appropriate boxes)

Conscious Unconscious

Breathing Not Breathing

Bleeding Not Bleeding

First Aid Interventions Required: (✓ appropriate boxes)

Establish/ Maintain Airway Ventilate CPR

Stop Bleeding Cool Burns

Stabilise Casualty's neck Stabilise Broken Limbs

Administer Oxygen Administer Pain Relief

Secondary Assessment: (✓ appropriate boxes)

Other injuries found – please identify part of the body injured.

Head Neck Chest Abdomen

Back Arms U/Legs L/Legs

Observations: (✓ appropriate boxes)

Conscious Unconscious Alert Confused

Skin Colour: Pale Pink Red Blue

Skin Condition: Sweating Dry

Pain: Location

Severity low - 1 2 3 4 5 6 7 8 9 10 - high

Type: Sharp Throbbing Burning Other

Radiating to where?

Reduced Movement (describe):

Reduced Feeling (describe):

Casualty Destination/Transport Details: (✓ appropriate boxes)

Hospital Local Doctor First Aid Room

Home Other:

Name/Location of Facility:

Mode of Transport:

Other Observations:

.....

.....

.....

Water Safety and Hazards



WATER SAFETY AND HAZARD IDENTIFICATION

When swimming, it is important to remember to maintain safety for yourself, others around you, and the environment you're swimming in.

The following factors will contribute to your safety when in an aquatic environment:

- A concern for yourself.
- A concern for others.
- Awareness of dangers.
- Minimising risks.
- Preventing accidents.
- Knowing when and how to act in an emergency.

The prevention of emergencies depends on your understanding of, and ability to apply, simple common sense water safety measures. To help you do this, Royal Life Saving has developed three easy-to-remember rules known as the **Aqua Code**.



1. GO TOGETHER:

When playing in, on or near water always make sure someone is with you.

2. STAY AFLOAT AND WAVE:

If in trouble in the water, try to relax, roll on your back, hold onto something if available, and wave one arm to attract attention.



3. REACH TO RESCUE:

If someone needs help, don't get into the water. Lie down and reach out with a stick or a rope.

THE FOUR A'S OF RESCUE

Steps in a Rescue:

The steps in any rescue may be summarised as 'the four As':

1. Awareness.
2. Assessment.
3. Action.
4. After-care.



Awareness:

- Recognition of an emergency.

Assessment:

- Making informed judgements.
- Do you have the **knowledge, fitness, skill and judgement** to do the rescue?
- Is it safe to conduct the rescue?
- Accepting responsibility.

Action:

- Perform a **safe, efficient and effective** rescue.

After-care:

- Give aid until medical help arrives.
- Report the incident.
- Comply with Duty of Care requirements.



STANDARD WATER SAFETY SIGNS

Regulatory Signs:

Regulatory Signs have a red border and bar on a white background. These signs contain instruction that must be complied with; failure to do so is a criminal offence.



Warning Signs:

Warning Signs have a black border on a yellow background. These signs advise of a particular hazard or hazardous conditions, or that an activity is not recommended.



Informative and Permissive Signs:

These signs always have a white border and a blue background. They provide information about water safety features or indicate a location where a particular activity is permitted.



AQUATIC ENVIRONMENTS

Swimmers should have knowledge of potential dangers in different aquatic environments. An understanding of what constitutes safe, responsible behaviour around water will help to ensure enjoyment and safety.

Rivers - Rivers, creeks and waterholes can be very dangerous and are often close to populated areas.

Dangers and Hazards:

- Crumbling banks – can result in a person accidentally falling into the water.
- Uneven and unsafe river beds – can cause difficulty for people wading or swimming.
- Submerged obstacles - such as trees, branches, rocks, rubbish can be dangerous when diving, swimming or even falling in accidentally.
- Currents – unpredictable and can be caused by factors flooding, projecting headlands or winding river course.
- Water temperature – water is often much colder than surrounding environment.



Stay safe at the river:

- Never go alone.
- Only participate in activities such as swimming or canoeing in designated recreation areas.
- Read and obey all signs in the area.
- Always check the water carefully before entering safely.
- Enter cold water slowly.
- Watch out for, and stay away from, boat areas.



Lakes and Dams

The flat, still appearance of lakes and dams often gives a false impression of safety. Strong winds can produce short, choppy, dangerous waves and reduced temperatures.

Dangers and Hazards:

- River entry points (current, sediment).
- Cold water.
- Waves (surging).



Stay safe at the lake:

- Never go alone.
- Only participate in activities such as swimming or canoeing in designated recreational areas.
- Read and obey all signs in the area.
- If you are unsure about the conditions, ask a local.
- Scan carefully for any potential dangers such as waves, or obstacles before you consider entering the water safely.

The Beach and Ocean

Going to the beach is a popular pastime in Australia. The ocean can be a fun place to spend summer days but it can also be a dangerous place.

Dangers and Hazards:

Waves:

Plunging waves break with great force and are capable of pushing swimmers to the bottom. These are sometimes called dumpers.

Spilling waves occur when wave crest tumbles down its front or face. Spilling wave can form tunnels and tubes.

Surging waves seldom break as they near the water edge. Water beneath the wave is very deep and the wave therefore does not slow down or gain height. Surging waves can knock swimmers down and carry them out to deep water.

Currents:

Tidal currents are caused by the rise and fall of the tide. These currents don't always flow into and out from shore; they may flow across or at an angle to the shore. This often occurs at the entrance to bays, inlets and river mouths.

Run-back currents are caused by the back wash of waves and are usually strongest where the beach is steep. Inshore or side currents are produced by waves breaking over a sandbank, by waves breaking at an angle to the beach, or both.

Rips:

Rips are fast flowing run-back currents that are very dangerous for swimmers in the sea. Water always finds its own level so after waves break onto the beach the water flows out in the direction that causes the least resistance. Rips can carry swimmers out towards sea.

How to recognise a rip:

- Discoloured water, brown in colour due to sand stirred off the bottom.
- Foam on the surface that extends beyond the breaking wave.
- A ripple appearance when the water around is generally calm.
- Debris floating with the current.
- Waves breaking larger and further out on both sides of the rip.

Stay safe at the beach:

- Always swim at a patrolled beach.
- Read and obey the signs and the lifeguards.
- Always swim between the red and yellow flags.
- Always swim with another person – never alone.
- If you have any doubts about your ability to cope with the conditions, you should not enter the water.
- Beware of digging deep holes, as the sides can become unstable and collapse.



Swimming Pool

The local public swimming pool, a theme park or a hotel pool are popular places to enjoy a swim.

Dangers and Hazards:

- Large crowds with young children, elderly people or inexperienced swimmers.
- Slippery surfaces around the edges.
- A varied depth of the water.



Stay safe at the pool:

- Read and obey notices giving advice to swimmers.
- Obey the pool lifeguards.
- Check the depth markings on the poolside to see where it is best to swim or dive.
- Stay clear of deep water unless you can swim.
- Make sure the water is clear before jumping in.

The Home:

Although the home may seem to be a relatively safe place, it has many potential dangers, particularly for very young children.

Dangers and Hazards:

- Unfenced home pool.
- Gates and barriers left open allowing easy access to a pool.
- Fish ponds in gardens which may attract youngsters.
- Uncovered spa bath.
- Filled paddling pools which are not in use.
- Buckets filled with liquids.
- Eskies with melted ice.
- Bath filled with water or plug left in.
- Washing machines with open lids.
- Toilets with open or accessible lids.

Stay safe in and around the home:

- Fence home pools and include self-closing gates.
- Keep the bath plug out of reach of small children.
- Keep liquid-filled buckets out of reach of children.
- Empty children's paddling pools as soon as they have finished using them.
- Close top-loading washing machines.
- Keep fish ponds covered.
- Install rigid covers over spas.
- Remove climbing objects from around the exterior area of the pool.



ROCK FISHING

DON'T PUT YOUR LIFE ON THE LINE



A rock-fishing safety message from Recfishwest:

- **Wear a life jacket.**
- **Never fish alone.**
- **Observe first, fish later.**
- **Wear appropriate footwear.**

ROCK FISHING SAFETY: KEY MESSAGES

Tell someone:

Always let friends know where you are going, when you'll be back and if your plans change.

Never fish alone:

Always fish with a buddy; if you get into any trouble, they can help. If you're new to rock fishing, go with an experienced fisher.

Know the area, know the conditions:

Read all the safety signs – they've been placed there for a reason. Check swell, tide and wind conditions before your trip.

Wear appropriate clothing:

Light clothing such as shorts and a spray jacket will allow you to swim more freely if you are washed in. Wear appropriate footwear with non-slip soles or cleats suited to the surface you plan to fish from.

Wear a life jacket:

Wear a life jacket or buoyancy vest at all times.

Observe first, fish later:

Spend time (at least 20 minutes) watching your intended fishing spot to get an idea of the conditions over a swell/wave cycle.

Plan your escape:

Scan the area and look for the safest place to come ashore should you be swept in. Decide on a quick getaway route from your fishing spot, well above the high tide line should you see a large wave coming.

Use appropriate Public Safety Equipment:

Know how to correctly utilise rock anchor points if they are in place at your fishing location. Know where the nearest public safety equipment is – and know how to use it.

Stay alert:

Don't ever turn your back on the ocean – if the waves, weather or swell threaten your fishing spot then leave immediately.

If you go in:

Stay calm, swim away from the rocks and remove any heavy or waterlogged clothing. Float on your back and await rescue, or if you're capable, swim ashore to the safe area you identified from your initial observations.

If you see someone else go in:

Do not jump in if someone is washed into the water. Use your rope or something that floats to help rescue the person. If there's public safety equipment nearby, know how to use it. Dial 000 or the local Sea Rescue to get help.

For more information, please visit www.recfishwest.org.au

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CATEGORIES OF SWIMMERS IN DIFFICULTY

Priorities of Rescue:

When more than one person is in difficulty, the rescuer must consider who to help first. Normally, attention should first be given to securing and supporting conscious people. Of these, non-swimmers should be given top priority because they are in danger of losing consciousness. However, it may be possible to provide early support to other people quickly and easily without significantly delaying the rescue of non-swimmers. Attention can then be given to unconscious or submerged people.

When rescuing multiple swimmers in difficulty, use the order shown below as a guideline for prioritising rescue (the **precise** order of rescues will, however, be determined by the nature of the emergency).

1. Non-swimmer:

Non-swimmers will panic when experiencing difficulty in the water. They are often doing what is referred to as "climbing the ladder". The swimmer will be vertical in the water and appear to be climbing a vertical ladder. The swimmer will have minimal or non-supportive leg action. They may submerge and may or may not be facing the shore. They will generally be quiet, and non-responsive to verbal commands. A non-swimmer may attempt to grab the rescuer.

2. Weak swimmer:

Weak swimmers may be able to use their arms and legs for support. The swimmer will be angled in the water (approximately 45°) and may attempt to grasp the rescuer or a floatation aid. Head position will be tilted up and back and the head will usually be turned to safety or help.

3. Injured Swimmer:

An injured swimmer will typically grasp the injured body part and be calling for help. They may be in an awkward position, but should be able to use a floatation device if provided.

4. Unconscious:

The unconscious person may be at any level of the pool, depending of the length of time they've been unconscious. The individual may be face-up or face-down in the water, but will not be moving.

TYPES OF ENTRIES

Remember:

- Before entering the water, assess the entry point to determine the best method of entry.
- Choose an entry that offers complete safety.
- Always consider the depth when entering.

Entry Method	When to use it
Slide In	The depth of water and state of the bottom are unknown. This entry is controlled and safe, allowing the feet and an aid to feel for unseen obstacles below the surface.
Wade In	The water is shallow and the conditions are unknown. The entry is controlled and safe, allowing the feet and an aid to feel for unseen obstacles below the surface.
Step In	The water is clear, the depth known and the bottom free from obstacles. The entry is most appropriate for areas where the entry point is not much higher than the water level.
Compact Jump	An entry is required from a height of more than one metre into known deep water. A feet-first entry is safer than a head-first entry, especially when the water has debris floating on it. This entry is primarily used in emergencies.
Standing and Shallow Dive	The water is known to be deep and free of obstacles.
Stride	A rescuer needs to watch the person in difficulty and entry is to be made from a low height into water known to be free of obstacles.
Accidental Fall In	A fall into the water occurs unexpected.

RESCUE TECHNIQUES

Self-preservation:

The key to any rescue is SELF PRESERVATION! A dry rescue is the best rescue - rescues that can be performed without the rescuer getting wet are the safest. Do not put yourself in danger. To ensure maximum safety, any rescuer should consider using, in priority order, the following methods of rescue.

Rescue technique		When to use it
Non-swimming rescues	Talk	The person in trouble is conscious, capable of responding to instructions and is close enough to the rescuer for them to see their gestures and hear their voice.
	Reach	The person in difficulty is near the edge; for example, having fallen in the water.
	Throw	The person in difficulty is too far away to carry out a reach rescue. The purpose of throwing a buoyant aid is to provide the swimmer in difficulty with support until removal from the danger area is possible.
	Wade	Attempts to reach and throw have been unsuccessful and the depth, current and temperature of the water permit a safe entry. The technique brings the rescue nearer to the person in difficulty and may enable a reach or throw rescue to be attempted.
	Row	It is not possible to perform reach or throw rescues and a wade rescue is not possible because of the depth of the water. This is an effective and safe technique because the rescuer remains clear of the water and the person in difficulty can be made secure quickly and safely. Be aware of the craft and its limitations.
Swimming rescues	Swim (Accompanied)	Rescuers should use a swimming rescue only when all land-based rescues have either failed or are not appropriate.
	Tow (non-contact and contact)	If a swimming rescue is to be used, always attempt an accompanied rescue first. However, a non-contact tow can be used when an accompanied rescue is not possible or has proven ineffective. A contact tow should only be used as a last resort.

CONTACT TOWING TECHNIQUES

An effective contact tow should:

- Keep the person's mouth above water at all times.
- Enable the rescuer and the person being towed to be as horizontal as possible to keep resistance to a minimum.
- Allow freedom for the rescuer's swimming movements.
- Make only reasonable demands upon the rescuer's stamina and strength, consistent with the water conditions and distance to be covered.
- Control the unconscious person's head position so that the airway can be kept open and water does not wash over the face.

The following contact rescue techniques may be used to carry out a rescue of an **unconscious** person:

Tow	When to use it
Cross Chest	Conditions are rough.
Head Tow	A firm hold of the unconscious casualty's head is required.
Clothing Tow	The unconscious person is clothed and the conditions are calm.
Double Armpit Tow	It is necessary to control the body position of the unconscious person and the rescuer does not have the swimming power to perform a cross chest tow.
Double Shoulder Tow	It is necessary to maintain a higher head elevation of the unconscious person. It is of benefit in rough water although more propulsive power on the part of the rescuer is required.
Vice Grip Tow	The person in difficulty has a suspected spinal injury.
Support Tow	This technique is particularly useful for those who are unconscious and not breathing, as it supports the head, allowing it to be kept clear of the water.
Wrist Tow	The person in difficulty is entirely cooperative, and all other rescue methods are unsuccessful.
Armpit Tow	The person in difficulty is entirely cooperative, and all other rescue methods are unsuccessful.

Extreme caution is advised if using a contact tow with a conscious person.

In a situation where a person in difficulty is extremely tired or severely injured and is known to be entirely cooperative, a contact tow for a conscious person may be the only option available.

DEFENSIVE TECHNIQUES

A situation may arise where a rescuer will need to use defences to avoid contact with a person in difficulty. For example, in a boating incident you may find yourself in range of a panicked person who may try to grab you as a means of keeping themselves afloat. At all times it is essential to maintain a safe distance from a person in trouble and therefore defensive positions may need to be adopted.

Defensive Position:

This position allows the rescuer to reverse away quickly should this be necessary.

- Maintain a safe distance from the person in difficulty.
- Tuck the legs rapidly under the body.
- Push the legs forwards.
- Make a final assessment from this safe position.



Reverse:

This is used when the person in difficulty attempts to grasp the rescuer.

- Tuck the legs rapidly under the body and push them forwards as in the defensive position.
- Kick away vigorously.
- Readopt the defensive position.

Blocking:

This is used when the person in difficulty lunges suddenly at a rescuer before it is possible for the rescuer to move away.

- Raise a leg or aid to block the person.
- Push against the person's body, preferably in the chest area.
- Swim away or submerge if necessary.



While a description of blocking has been provided, the safest way to perform a rescue is to keep a safe distance between the rescuer and the person difficulty.

Two People Locked Together:

A situation may arise when poor swimmers grasp each other in an attempt to remain on the surface. This is a very dangerous situation where the following procedure is recommended:

Cooperative swimmers:

- Place a buoyant aid between the two people.
- One or both people may hold the aid (depending on the size of the aid).
- Tow the people to safety, singly or together.

Non - cooperative swimmers (if they will not grab the aid):

- Come from behind one of the swimmers, place the aid in the centre of the two swimmers, and use force to pull the swimmers off each other by holding onto one swimmer under the armpits and using the defensive position to push off the other swimmers chest.
- Instruct the person who you are holding onto to calm down, the other swimmer should be holding onto the aid provided. Use an accompanied rescue whilst towing the other swimmer in to safety.

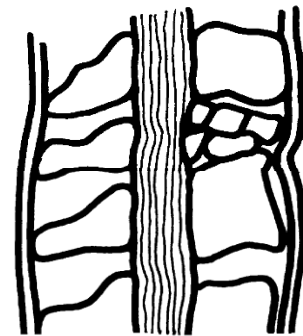
SPINAL INJURIES

Spinal injury can result when the head impacts against a hard surface, for example the pool floor, or even the water if the person is diving from a height. Unless you observed the circumstances leading to a person becoming unconscious in shallow water and know that neck or back injury is highly improbable, then the motionless casualty lying in shallow water must always be treated as a suspected spinal injured casualty. Any person unconscious within the immediate vicinity of a dive board or tower can also be suspected as having spinal injuries, even though they are found in deep water.

Nearly all aquatic spinal injuries occur in the neck area. This is due to the impact being followed by forward bending of the neck (flexion). The spinal cord contained within the vertebrae has only a small channel in the neck region and any further reduction in the size of the channel through bone fragments protruding, movement of the cord or swelling in the area, can all place pressure on the cord, which may lead to permanent spinal damage.

The immediate concern is that of maintaining the airway; however, as any movement of the spine can cause further damage, the onus is on the rescuer to establish an airway whilst at the same time immobilising the neck.

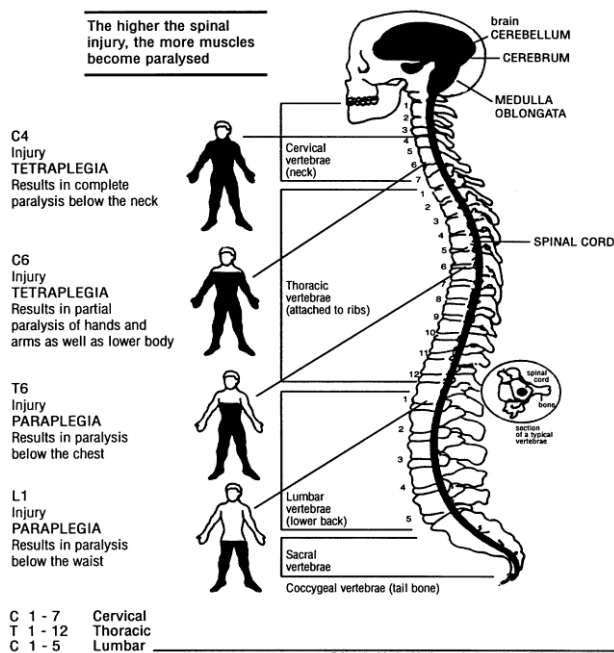
ABC always takes priority. With only one rescuer, immobilisation may not be possible if resuscitation is needed. If more rescuers are available it is possible to immobilise and perform rescue breathing in the water.



THE ANATOMY OF THE SPINE AND SPINAL CORD

Level of Injury and extent of paralysis

The higher the spinal injury, the more muscles become paralysed



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If CPR is needed then the casualty must be taken from the water as quickly as possible, taking as much care as you can to keep the spine from not moving, and CPR commenced when on land.

If the person is breathing and lying face up then the rescuer needs only to provide some means of support to the head and neck. If the casualty is lying face down in the water then they must be turned to keep the mouth and nose clear.

Signs and symptoms:

A casualty who has suffered a spinal injury may have broken the bones of the spine, or have damaged the spinal cord within it. If the spinal cord is damaged:

- The casualty may experience lack of movement, muscle weakness, numbness or tingling.
- The casualty may be in pain and bewildered by the lack of movement.
- The casualty may be face up or face down, conscious or unconscious, breathing or non-breathing.
- Deformity, redness, muscle tightness or lacerations may be present at the site of the injury.
- The conscious casualty may complain of visual problems and pain.

Management:

- Follow the DRSABCD action plan.
- Prevent any twisting of the head or spine; but remember that *nothing* is more important than maintaining the airway and ensuring breathing.
- Extreme care must be taken and the casualty should only be moved by rescuers trained in spinal management injury.
- Immobilise the head and neck. **If the casualty is in the water**, immobilisation is best achieved by using the vice grip technique.
- **If unconscious**, and out of the water, CAREFULLY place the casualty on their side and monitor their ABC (If on your own, you must carefully put in the recovery position).
- **If conscious**, and out of the water, DO NOT MOVE, maintain the casualty in a comfortable position and call for an ambulance. Permanent paralysis and other serious injuries may result from movement.
- Resuscitation should be commenced if required, as with any unconscious casualty. This takes priority over the spinal injury; if the casualty is in the water they need to be moved onto land. Use the jaw thrust technique to open the airway.
- Provide continual reassurance to the casualty.
- Maintain body temperature.

SPINAL MANAGEMENT

Vice Grip (face-down casualty):

The vice grip is used to immobilise the spine when a spinal cord injury is suspected. In aquatic spinal cord injury, damage occurs quite high in the spinal cord. Correct application of the vice grip can immobilise the neck and prevent any further damage to the spinal cord from movement of dislocated or fractured vertebrae.

- Carefully position hands on the casualty's face and head.
- The face hand is positioned with the fingers spread on one side of the casualty's face, the thumb on the other side and the flesh between the thumb and index finger over the chin.
- The face forearm is placed straight down the sternum (or as close to as possible).
- The hand on the back of the head is located quite high on the head with the thumb and little finger at about ear level.
- The back forearm is placed straight down the spine.
- By pressing in firmly with the hands and arms in this position, a vice grip is achieved.
- Execute the roll-over by moving the casualty gently head-first in a slow directed glide to achieve a horizontal body position.
- Roll the person gently onto their back by gently submerging below, and rolling under, the casualty, keeping their spine horizontal in the water.
- At no stage during the manoeuvre should the neck be allowed to flex or move laterally.



Extended Arm Roll-over (face-down casualty) – shallow water:

- Approach the person from the side, facing towards the head.
- Extend the person's arms, under the water, from above the elbows, beyond the head, to the level of the ears. Press them firmly alongside the head.
- While maintaining the grip on the arms, position the thumbs lightly on the back of the person head to prevent neck extension.
- Move the person gently head first in a slow directed glide to achieve a horizontal body position.
- Roll the person gently onto their back so they face away during the turn and finish resting on the crook of the rescuer's arm.
- Maintain immobilisation by the rescuer pulling inwards with their far hand and forearm against their upper arm and chest.
- The rescuer's free arm can then support the person's body.
- At no stage during the manoeuvre should the neck be allowed to flex or move laterally.



RESUSCITATION IN THE WATER

During the course of a rescue, it may be necessary to commence rescue breathing while still in the water. Chest compressions are not possible in the water but successful rescue breathing has been documented on many occasions.

The principles of resuscitation in the water are similar to those for resuscitation on land.

- Establish a clear airway.
- Ensure the head is tilted and the chin lifted.
- Check for the presence or absence of breathing.
- If breathing is absent, commence rescue breathing.
- Complete the rescue and extract the casualty from the water as soon as possible. This may mean not undertaking rescue breathing on the way to safety.
- Continue with DRSABCD.

If the person cannot be removed from the water for any reason then it is reasonable to continue rescue breathing until the casualty is rescued from the water.

The **rate for rescue breathing** in the water is **15-20 breaths per minute**, or approximately 1 breath every 3-4 seconds, irrespective of the casualty's age.

Shallow water resuscitation:

If the water is moving, the casualty may need to be secured and supported by the rescuer's body and knees. The side of a pool, for example, may also be used to provide such support.

If it is possible to perform rescue breathing successfully in the water, and there is no place on dry land to move them to, then it may be safest to continue there. In general, the casualty should be quickly moved to dry land, to enable CPR to be commenced as soon as possible.

Deep-water resuscitation:

When learning deep-water rescue breathing, a rescuer will find that the most effective way to establish a clear airway is to allow the unconscious person's body to hang vertically in the water. This can be done by placing one hand under the head, and the other on the face to apply chin support, resulting in a head tilt and open airway.

Many rescuers initially make the mistake of trying to float the unconscious person in a horizontal position, in an attempt to copy rescue breathing as performed on land.

To be able to perform efficient deep-water rescue breathing, rescuers need to practise using a variety of buoyant aids.

- For deep water rescue breathing at an edge, the rescuer uses the edge for support. **For in-water resuscitation, rescue breaths should be performed mouth-to-nose.** The same vertical body position of the casualty in the water is required.
- All efforts should be made to remove the casualty from the water as soon as possible to commence CPR.



Suspected spinal in-water resuscitation



ASSISTED LIFTS AFTER RESCUING

A successful rescue requires the person in difficulty to be removed or assisted from the water and moved to a place of safety. The removal should be carried out as quickly as possible with the minimum risk to both the person in difficulty and the rescuer, and with minimum interruption to the performance of resuscitation, should this be required.

WA Assisted Lift (Tea Bag Lift):

Used when help is available but the person in difficulty is unable to provide assistance. This lift can be performed by two, three or four people.

- One rescuer must take control and organise the lift.
- The person in difficulty should be facing the edge supported by a rescuer.
- The assistant rescuer(s) on the edge should cross the casualty's arms over and take a firm hold of the person's wrists whilst waiting for the initial rescuer to exit the water.
- Once the initial rescuer has exited the water both rescuers should take a firm hold of the casualty's wrists and elbows, slowly turning the casualty so that their back is against the wall.
- On an agreed signal, the rescuers lift, raising the casualty to a position where the hips are higher than the bank or pool edge.
- Sit the person on the bank or pool edge, support their head to the ground.
- The rescuers then move the casualty to a safe area, place them in the recovery position and provide after care.

While this technique can be used by a lone rescuer it is not recommended.



Stirrup Lift:

A stirrup lift can be used when the person in difficulty is able to assist.

- Provide support against the edge until the person in difficulty has recovered sufficiently to be assisted from the water.
- Move beside or behind the person.
- **If the water is shallow**, reach down and cup your hands against one knee.
- **If the water is deep**, cup one hand while using the second hand to maintain a firm grip on the edge.
- Instruct the person in difficulty to place one foot in the stirrup formed by the hand(s), step up and leave the water.
- If the edge is high, it may be difficult to hold. In this case the rescuer should tread water while providing a stirrup. As the person levers their body up, the rescuer may go under water.

SEARCH PATTERNS

Recovering a submerged person:

If the rescuer has observed the person in difficulty submerging either prior to or during the approach, the location of the body will be known and recovery of the body can be performed without delay. However, if the location of the body is not known, a search will be necessary.

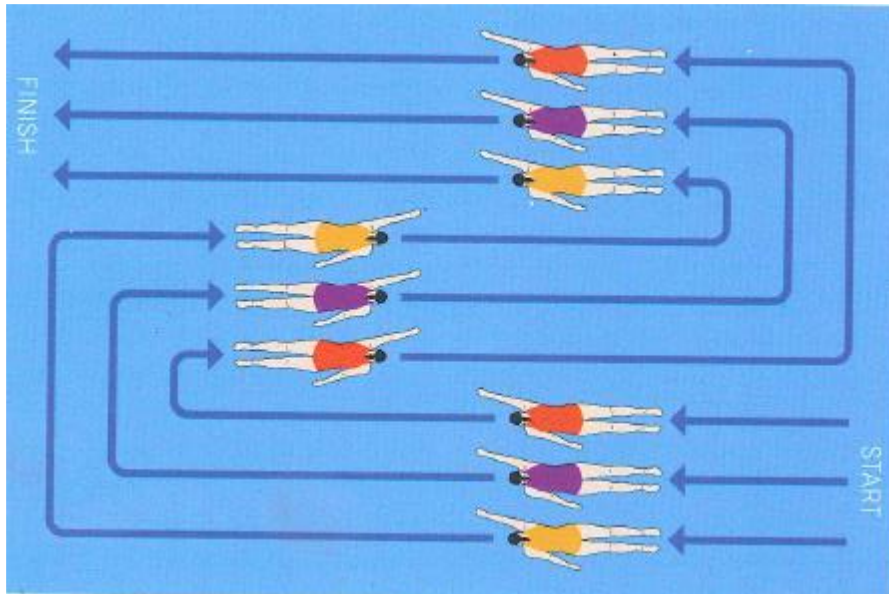
Lakes, dams and rivers have area of murky water. An unconscious body that submerges in these areas maybe lost from sight. The only indication of the person's location may be bubbles.

Team Search:

- One person takes charge to coordinate the rescue.
- A second person is sent for help.
- It is important to know reference points on land from which to monitor the area that has to be searched.
- During a river search remember to check the river bank first.
- Use the backing up technique to ensure the whole area is covered.

Parallel-Pattern Search:

The search is conducted in parallel lines following the backing up technique. To turn the group, the end person acts as a pivot to ensure the whole search area is covered.



- One person (teacher) takes charge to coordinate the search and rescue.
- Another person is sent for help and, upon return, conducts a search from the shore. If the emergency occurs in a location that is difficult to find, the coordinator may instruct a second person to direct the emergency services to the location, or to return and join the search.
- The remaining rescuers, including the coordinator, space themselves at a distance where they can see the rescuers either side when underwater.
- The rescuers must perform the search in parallel lines, ensuring the lines are maintained so they can see the person on either side.

SURVIVAL STRATEGIES AND TECHNIQUES

Survival in deep water depends on the ability to use the following:

- Knowledge – to understand what to do.
- Judgement – to decide what to do.
- Skill – to perform what is required.
- Fitness – to achieve the desired results.

Swimmers in survival situations should remain calm and consider the following factors:

- Winds, currents or tide strength and direction.
- Distance from safety.
- Ability to swim safely.
- The possibility of someone on the shore coming to help.
- The weather and water conditions.
- Air and water temperature.
- Whether a craft will remain floating or submerge.
- Whether the craft can be held.
- What buoyant objects would help floatation.
- The clothing being worn.
- Whether to remove heavy clothing.

To survive cold water immersion:

- Wear a lifejacket/PFD and protective clothing.
- Grasp large floatation aid or boat wreckage if available and climb as high out of the water as possible.
- Avoid immersing the head.
- Adopt a heat escape lessening position (HELP) or huddle position.
- Remain as still as possible.

Putting on a lifejacket or PFD in the water

Ideally, lifejackets should be on prior to entering the water. However, if this is not the case, the following technique can be used:

- Place the lifejacket in front of the body on the surface of the water, ensuring the inner lining is facing upwards and that the collar is away from the body.
- Place one arm into the appropriate arm hole.
- Turning the body, lean back into the lifejacket (lying on the back with lifejacket underneath).
- Place the other arm into the lifejacket.
- While lying on the back, zip, tie and/or buckle the lifejacket.

It is important to keep hold of the lifejacket, especially in rough conditions and attempt to put it on without getting the head wet.



INDIVIDUAL SURVIVAL STRATEGIES

The key to survival in aquatic survival situations is to conserve energy and, where necessary, to retain body heat.

- Make a plan and avoid panic – even when exhausted or suffering from a difficulty such as cramp, it is still possible to remain afloat for long periods of time.
- Stay afloat and hold any buoyant object to help floatation or put on a lifejacket (if one is available) and remain as still as possible.
- Maintain the body in a relaxed position. If propulsion is desired, keep as horizontal as possible.
- Keep the body and limbs submerged. This is especially important if wearing clothes. This position takes advantage of the body's natural buoyancy and enables the face to be lifted clear of the water with a minimum of effort whenever a breath is required
- In cold water, retain clothing. Keep the head and as much of the body as possible out of the water, minimise movement, and adopt the **heat escape lessening posture** (HELP) or huddle position.
- Survival sculling, floating and/or treading water are the preferred survival techniques. When the time to rescue is unknown, or likely to be long, it is vitally important to minimise energy expenditure and heat loss.
- If swimming cannot be avoided, use slow, relaxed strokes to conserve energy.
- Change position and stroke to lessen muscular fatigue. The ability to perform a range of survival strokes – survival backstroke, survival breaststroke and sidestroke will increase confidence and the ability to cope with changing circumstances.
- Keep the eyes open to avoid loss of confidence and the build-up of tension. The sun and salt water, however, may adversely affect the eyes and make it undesirable to keep them open at all times.
- Breathe in a regular and controlled manner to prolong endurance and assist floatation.
- Attract attention. This may be achieved by lying on the back in the water and waving one arm. Lifting both arms consumes energy and will cause the body to sink.

THE KEY TO SURVIVAL IS TO CONSERVE ENERGY

GROUP SURVIVAL STRATEGY

In addition to the principles of survival outlined for an individual, the following additional points may be considered for group survival situations.

- Identify a leader who will be responsible for organising the group. This could be someone with existing authority or the person with the most survival knowledge or experience in survival.
- Make 2 lines and pair up by facing one another, to assist in monitoring the group.
- Give every person in the group a number to assist in monitoring the group
- Remove heavy clothing if needed.
- Use aids effectively. If no aids are available clothes can be blown up and used as floatation devices.
- Swim survival strokes – survival backstroke, survival breaststroke and sidestroke.
- Line 1 should swim survival backstroke whilst Line 2 swims survival breaststroke, this ensures that each pair are keeping an eye on one another.
- Supervise the weaker swimmers and put them in between Lines 1 and 2.
- Stay together as a group and encourage each other.
- When the group becomes tired, and to assist in minimising further muscle fatigue, Line 2 should swim through Line 1 to change their stroke and position in the water. Always use the defensive position when a swim through is being done.



ALCOHOL AND RECREATIONAL AQUATIC ACTIVITY

People who are under the influence of alcohol are more likely to:

- Swim at night.
- Swim alone.
- Swim in dangerous water conditions at unpatrolled beaches.
- Not wear a lifejacket.
- Participate in boating activities in dangerous water conditions.
- Be inattentive, careless, reckless or inexperienced when operating boating equipment.

Drinking alcohol, even in small quantities, can affect a number of factors that increase the risk of injury if a person is involved in swimming and other water related activities. These factors include:

- Impaired judgement.
- Impaired balance, vision and coordination (leading to increased risk of falling overboard, falling heavily or being involved in a collision).
- Less inhibitions, more confidence without matching competence.
- Loss of muscle control, tiredness, blurred vision and confusion.
- Blood vessel dilation (may increase the period of time in which someone chooses to stay in cold water and increase the risk of sustaining hypothermia).
- Labyrinthine function (vertigo) and laryngospasm (which may reduce the chances of survival in the water due to the effect on swimming ability).

Almost half of all drowning deaths amongst young adults in Western Australia are contributed to by alcohol.

THE BEACH



**WESTERN
AUSTRALIA**

THE BEACH

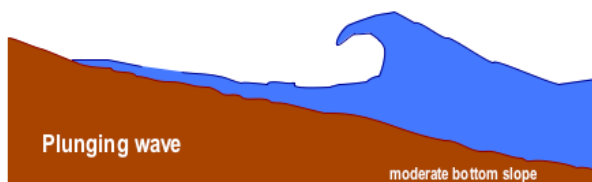
WAVES:

Waves in open water are much larger, stronger and more consistent than those on inland waterways; therefore, special knowledge and skills are required when swimming in open water waves.

Waves are caused by wind. Their size and strength are determined by the strength, duration and distance over which the wind blows.

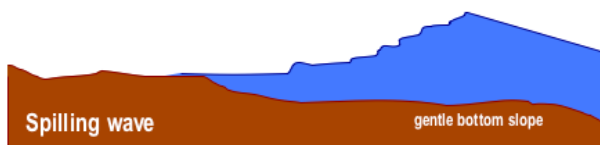
Plunging Wave

This wave breaks with great force and is capable of pushing swimmers to the bottom. Plunging waves occur mainly at low tide when the water on the sandbanks is shallow, which means there is less water on which the waves can break. Plunging waves are sometimes called dumpers.



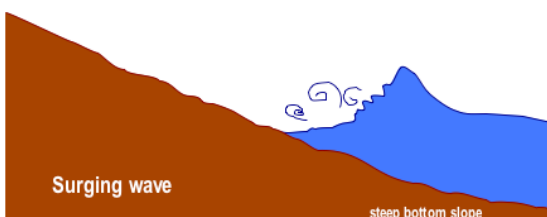
Spilling Wave

This type of wave occurs when its crest tumbles down its front or face. Spilling waves will usually form as the tide recedes, leaving less water on banks on which waves are breaking. Spilling wave can form tunnels and tubes.



Surging Wave

This is the wave which seldom breaks as it nears the water edge. Water beneath the wave is very deep and the wave therefore does not slow down or gain height. Surging waves can knock swimmers down and carry them out to deep water.



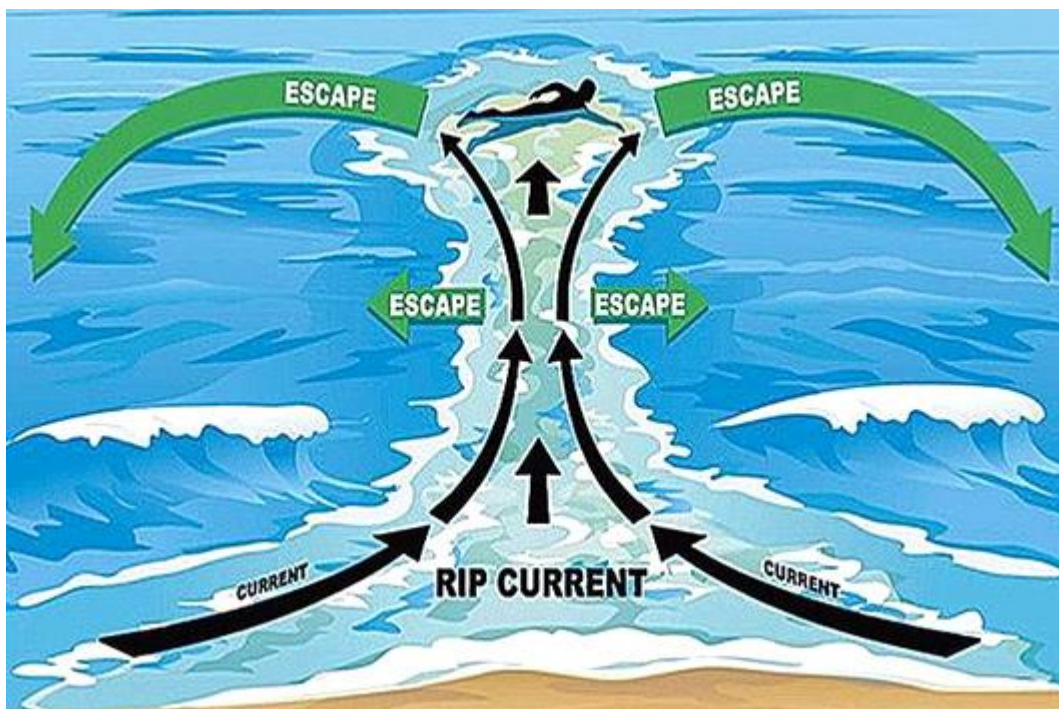
CURRENTS:

Tidal currents are caused by the rise and fall of the tide. These currents do not always flow into and out from shore. They may flow across or at an angle to the shore. This often occurs at the entrance to bays, inlets and river mouths.

Run-back currents are caused by the back wash of waves and are usually strongest where the beach is steep. Inshore or side currents are produced by waves breaking over a sandbank, by waves breaking at an angle to the beach, or both.

RIPS:

Rips are fast flowing run-back currents that are very dangerous for swimmers in the sea. Water always finds its own level so after waves break onto the beach the water flows out in the direction which causes the least resistance-this is a rip. If you are able to recognise a rip, you should be able to avoid being accidentally caught in one.



How to recognise a rip:

- Discoloured water, brown in colour due to sand stirred off the bottom.
- Foam on the surface that extends beyond the breaking wave.
- A ripple appearance when the water around is generally calm.
- Debris floating with the current.
- Waves breaking larger and further out on both sides of the rip.



Public education about rip currents is an essential element in reducing drowning. At every opportunity, teachers should educate the students on how to identify and avoid rip currents in beach activities.

How to escape from a rip current:

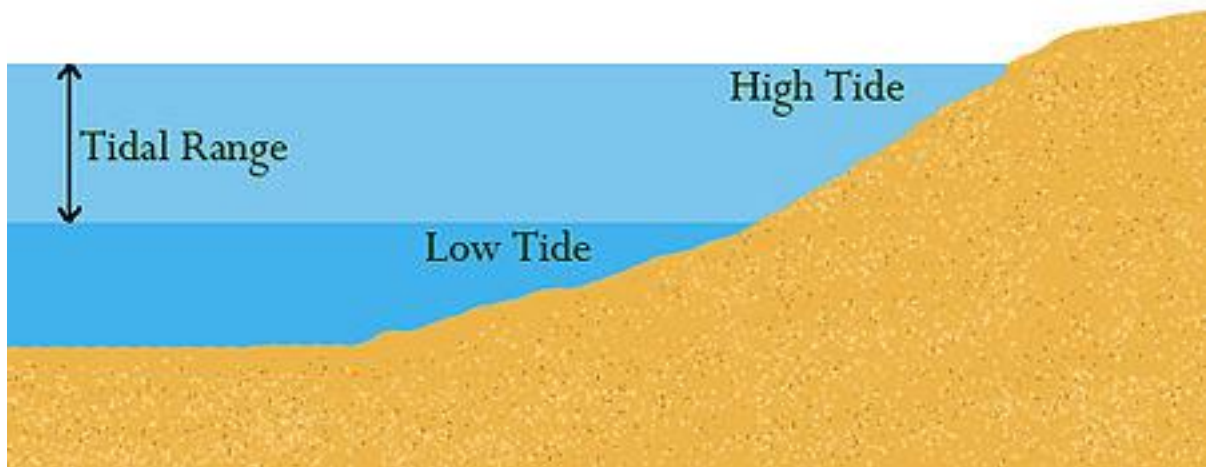
- If caught in a rip – **DON'T PANIC**. The swimmer with limited ability should ride it out from the beach and swim parallel to the shore 30-40 metres, then return to shore on a perpendicular course where waves are breaking.
- Strong swimmers should swim at a 45 degree angle across the rip and in the same direction as the side current.
- After a short swim it pays to probe the bottom with the legs to see if a sand bar has formed close to the edge of the rip.

TIDES:

The gravitational pull of the moon and the sun causes tidal movement in the Earth's oceans and seas. High tide generally occurs twice in a 24-hours period; however, this may vary for many locations during any given week or month.

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

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



PICKING UP, CARRYING AND LOWERING OF A PATIENT

After a patient has been retrieved from the ocean, you will possibly have to move or carry the patient to a safe area for assessment or further treatment. The following methods for pair and group carries ensure reasonable speed and care while helping to conserve energy.

TWO PERSON CARRY:

A two person carry may be used when an exhausted or unconscious patient requires removal from the shallow water or away from danger on land. This carry may be performed after a patient has been returned to shore after a rescue. The basic principles of a two person carry are:

- When the rescuer returns to shore, additional help should be waiting at the water edge to receive the patient.
- One rescuer should provide support with the patient's back against his/her chest.
 - Slide both arms under the patients armpits.
 - Use one hand to maintain the pistol grip on the patients jaw line.
 - Use the second hand to grip the patients corresponding arm at the wrist.
- The second rescuer should support the patient by the legs in the manner most comfortable to them.



Remember

In any rescue, all attempts should be made to keep the patients neck as much inline as possible and to maintain normal alignment of the patients spine. Airway always takes precedence over a spinal injury.

TWO HANDED SEAT CARRY:

This carry is used when a patient is conscious and can help support themselves, but may need assistance in coming up the beach.

The rescuers stand facing each other on opposite sides of the patient. They bend their knees and each place one arm around the patient's back and waist. The rescuers' other arm is placed under the patient's thighs, where the rescuers then grasp each other's forearms.



TWO PERSON DRAG:

This drag may be used for the removal of any patient from the water.

The unconscious (large) patient should be removed from the water by having their arms gripped and being dragged up the beach.

Each rescuer holds the patient by one arm, placing one hand on the patient's wrist and the other hand in between the patient's underarm and elbow.

After being dragged to safety the patient is placed on their side for assessment.



SPINAL INJURY SUPPORT CARRY/ EXTENDED-ARM ROLL-OVER:

The spinal carry should only be used when no spinal board is available.

This technique is for information only and is not assessable.

1. The aim of the extended-arm roll-over technique is to maintain the airway while immobilising the patient's head in the neutral position, by pinning the patient's head between their arms.
2. The responder should come alongside the patient and place both arms quickly under the patient's armpits, with hands on either side of the patient's head, over the ears. As a result of the action of the waves and the movement of the water, the responder and the patient's head may be facing the oncoming waves.
3. The neck should be kept in the neutral position until the rescue is complete. The neutral position is where the head, neck and spine are in a position that, if standing vertical, the eyes face directly towards the horizon.
4. If breathing is present, subsequent movements can be unhurried. However, if breathing is absent, the need for rescue breathing is urgent and the patient must be moved to the beach as quickly as possible.
5. More responders will be needed to help lift the patient. The exact number of responders needed will be determined by the size of the patient, the number of responders available and the surf conditions. It may be necessary to enlist the help of members of the public. The most experienced responders present should assume control and give clear directions on all movements involving the patient.
6. The first responder should hold the patient's head and take responsibility for neck stability by grasping the patient's shoulders at the base of the neck, thumbs up and fingers down; if this is not possible, the head carrier can place his or her hands over the patient's ears. The head carrier then locks their elbows by their side and braces against the patient, keeping the head and spine in alignment. Ideally this should be performed by the most experienced person present; however, unnecessary changing of the patient's position in order to swap rescuer roles is not recommended.
7. If a spinal board is not available by the time that enough responders are present, the rescue is completed without it. The patient is lifted simultaneously by everybody using a monkey grip, and then moved carefully to the beach. When lifting the patient, the carriers should lock arms to enable stability during the carry.
8. At least one member must watch and report on approaching waves and other surf conditions.
9. Movement must be slow and careful, taking into account the conditions under foot.

10. Depending on beach and surf conditions, the patient may be moved from the water feet first or head first.
11. When the rescue team reaches reasonably level, dry sand, above the water line, carriers should position themselves to lower the patient to lie across the beach, facing the water.
12. Lowering of the patient must be done very carefully and performed as a team.
13. The patient is put on their back with the neck supported, the airway checked and cleared if necessary and breathing reassessed. If the patient is breathing, and a suitably qualified, experienced operator is present, maintain the head and neck in the neutral position. Complete immobilisation of the head with sand, or by any other appropriate means. The application of a spinal collar by a non-proficient person is not recommended.
14. An unconscious, breathing patient should be maintained and monitored on their side, with the body tilted slightly forward to enable both breathing and drainage from the mouth to occur. No bending of the upper leg should take place as this action can rotate the spine.
15. The conscious patient who is breathing should be left on their back. If vomiting or regurgitation occurs, the patient should be turned gently, using at least three operators, with the patient's head and neck continuously supported on their side. At all times, the whole spine should be kept in line, without bending or twisting.
16. The unconscious person should always be managed on their side with their head in the neutral position. This can be achieved by using a hand, towels, sand bags or rescue tube to help support the head.

The rescue board can be used as a stretcher and should be considered as a stretcher substitute. However, rescue equipment should not be removed from the area as it may be needed again.



Extended-arm roll-over in shallow water.



Rescue team moving closely together, alongside the patient, to support a suspected spinal injury, directed by Responder 1 at the head.



Responder 1 moves behind patient head, keeping a firm grip on arms pressing against the ears of the patient.



Responder 1 being supported by another responder to break the on coming waves.



Patient being lifted from the shallow water and protected from the waves, a bystander approaches to assist.



Bracing patient for oncoming waves with mouth being covered to stop water entering airway. Responders are talking to the patient about what is going to happen.



Full support, maintaining extended-arm roll-over.



Moving patient to dry sand area, ready to lower.



Responder 1 directing the lowering of the patient to dry sand.



**Lowering down - to one knee.
Send extra responder or
bystander to call for help (000).**



Lowering to both knees.



**Vice grip placed on top of
chest and face to immobilise
spine, bring down both arms
from above head to side of
body. Check airway &
breathing.**



**Patient breathing: place in recovery position, monitor, provide after-care.
Patient not breathing: start CPR - called 000 if it hasn't already been done.**

TUBE RESCUES

The rescue tube should always be kept in a rescue-ready condition within the designated swimming area, or carried by the designated supervisors.

Entering the water:

- Pull the end of the belt and allow the rescue tube to unwind.
- Place the belt over your head and under one arm like a sash.
- Hold the tube under your arm or in one hand.
If applicable, hold the swim fin in the other.

Upon reaching the water's edge:

- Throw the tube to the side and commence wading through the surf.
- If applicable, put the swim fin on when reaching waist deep water.
- Negotiate the surf.
- Swim normally: the rescue tube, if correctly deployed, will cause little drag to your swimming.
- When patient is reached call for assistance.



CONSCIOUS PATIENT:

- Stop approximately two metres from the patient, reach back for the rescue tube and push it towards the patient.
- Watch the patient for signs of panic or fright. Talk to, reassure and encourage the patient to remain calm and obey instruction.
- When the patient has calmed down, clip the rescue tube securely around the patient under both arms.
- Determine if you can return to shore safely. If you can't, move to a safer position, signal for assistance, and support and reassure the patient.

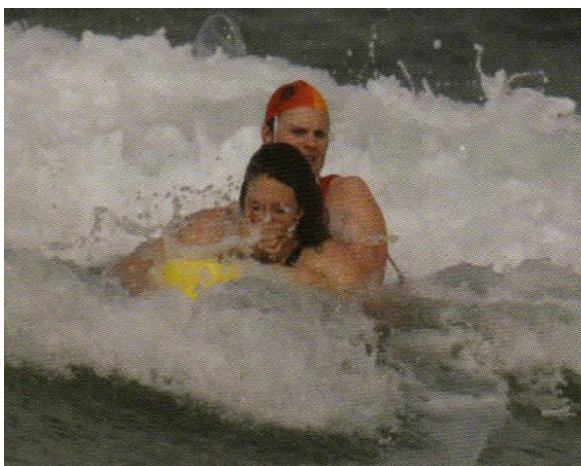


RETURNING TO SHORE:

- Tow the patient to shore with the tube if it is reasonably safe to do so. Encourage a conscious patient to assist you by floating on their back and kicking their legs if they are able.
- Take care when entering the surf zone. Always check for incoming waves and white water.

When a wave approaches:

- Pull the patient toward you and secure the patient to minimise getting entangled in the lanyard.
- Turn your patient toward the beach, placing yourself between the patient and the wave.
- Tell the patient to take a deep breath, then clamp your hand over the patient's mouth and nose and hold on to them. Attempt to submerge.
- Alternatively, if the wave is small enough and you are on a sand bar, lift the patient over the wave.
- If you lose contact with the patient, regain control to shore.



UNCONSCIOUS PATIENT:

- Approach the patient from behind.
- Clip the tube around the patient's chest, under both arms.
- Pull the patient's head out of the water as soon as possible.
- Assess whether the patient is breathing. If not breathing, attempt two deep water rescue breaths (mouth to nose).
- Give the 'assistance required' signal and support the patient, continuing deep water rescue breaths if required.
- If assistance is not available, return the patient to shore, maintaining control of the patient.
- Always protect patient from arriving waves.

DEEP WATER RESCUE BREATHING WITH A RESCUE TUBE:

It has been stressed that resuscitation must be started as early as possible. In some rescues, depending on the equipment available and the ability of the rescuer present, it is possible to deliver some breaths before reaching the beach. If this can be done it will improve the non-breathing patient's chance of survival. However, these techniques require floatation aids, knowledge, fitness and skills.

Deep water rescue breathing is difficult; however, lives have been saved by starting rescue breathing on arrival at the patient who is not breathing. Deep water rescue breathing should only be performed beyond the surf zone or close to shore. The preferred method of deep water rescue breathing is mouth-to-nose.

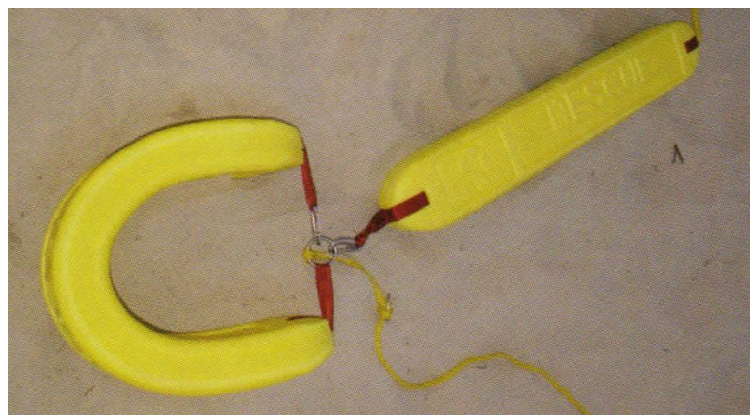
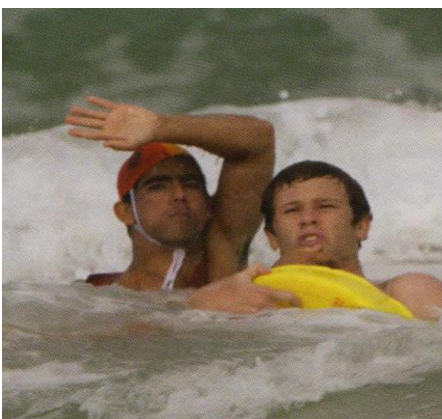
Deep water rescue breathing with a rescue tube can be performed in a number of ways as illustrated in the pictures below. Lifesavers must familiarise themselves with various options.



DOUBLE TUBE TOW:

A second rescuer with a rescue tube, and a swim fin where appropriate, can assist in returning a patient to shore using a double tube tow. This is very effective for heavy patient or in difficult conditions such a rough surf or strong currents.

- The first rescuer secures the patient with the rescue tube.
- The second rescuer clips the end of the second tube onto the ring of the tube around the patient.
- Both the rescuers tow the patient to shore. The second rescuer will be about a body length in front of the first rescuer. Keeping about one metre apart will reduce the risk of tangling the lanyards.
- The safest way to return through a surf zone is to wait for a lull in the wave patterns and swim towards shore.
- Once inside the surf zone one of the rescuers should keep watch of the patient and the surf.
- If a large wave approaches, the first rescuer should secure the patient while the other moves off to the side to minimise the chance of getting entangled in the lanyard.



REACHING THE SHALLOWS AND SHORE

Upon reaching the shallow water, follow the additional steps below according to the condition of the patient.

CONSCIOUS BREATHING PATIENT:

- Assist your patient out of the water, allowing the rescue tube to fall off the patient only when you deem it safe.
- Monitor the patients breathing.

UNCONSCIOUS BREATHING, OR EXHAUSTED PATIENT:

- Maintain patient support while keeping the patients head out of the water and signal **ASSISTANCE REQUIRED**.
- Monitor the patient's vital signs. Be prepared to commence CPR if the patient stops breathing.
- Upon the arrival of assistance, use a group carry to take the patient to a safe location.

UNCONSCIOUS NON-BREATHING PATIENT:

- Maintain patient support, perform two rescue breaths and signal for **ASSISTANCE REQUIRED**.
- Monitor the patient's vital signs and continue rescue breaths.
- Upon the arrival of assistance, use a group carry to take the patient to a safe location and perform patient assessment and appropriate treatment.



SIGNALS

BEACH TO WATER SIGNALS:



Remain Stationary



Go to the left
(facing the water)



Go to the right
(facing the water)



Proceed further out to sea



Return to shore



All clear/Okay



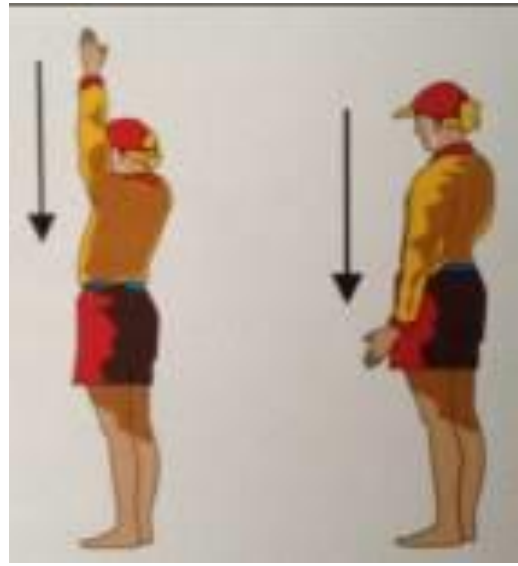
Investigate submerged
object



Emergency



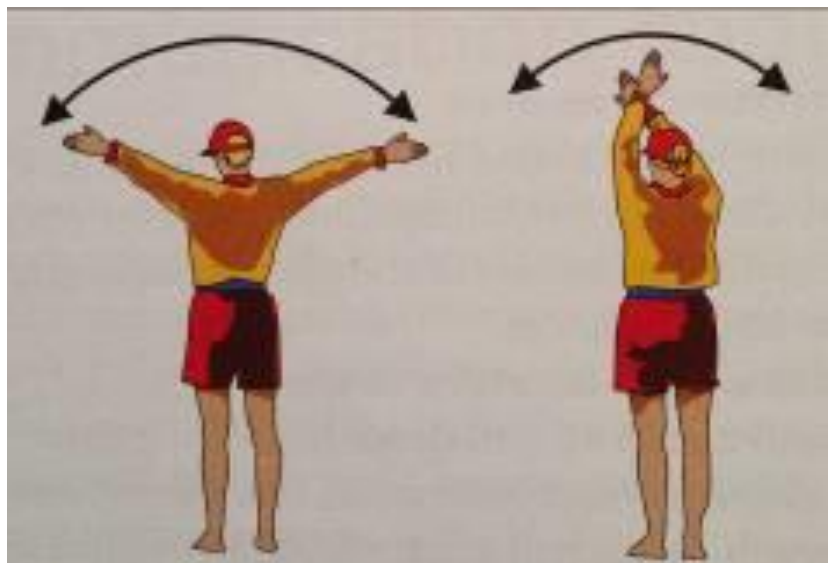
Pick up swimmers



Message understood/all clear



Message not clear, repeat



To attract attention between a boat and the shore

WATER TO BEACH SIGNALS:



Assistance required



Search completed



Shore signal received and understood



Shore signal received and understood

INTRODUCTION TO UNDERSTANDING THE RISKS

SWIMMING ABILITY:

Taking children of unknown swimming ability swimming is a **high risk**. To take children of unknown ability swimming is a greater risk than planning a swimming excursion for a group of children who you know are non-swimmers.

You need to know **the swimming skill level of all children** to plan for appropriate swimming activities and venues; it would not be acceptable to take a group of non-swimmers to a wave pool or allow them to go down a water slide into deep water.

Do not assume older children are good swimmers: age has nothing to do with swimming ability. Swimming skills are learned and practised to develop to a level of competency.

AT THE VENUE:

On arrival at the venue, children should be:

- Directed to areas appropriate to their level of swimming skill. If you are unsure, always assume the child is a non-swimmer.
- Instructed on safety rules.
- In sight of a supervising adult at all times.
- The aquatic supervision ratio should be observed at all times and is dependant on the activities and environment.

WATER CONDITIONS:

Water that is murky and reduces your ability to see the bottom creates a **high risk** environment. Children enjoy swimming both on top of the water and under the surface. Diving to the bottom to collect objects is a favourite water game for many children. If you are unable to see the bottom of the swimming area you are also unable to see children if they dive below the surf. You will also be unable to see any hazards that may be below the surface such as rubbish, branches and rocks. This needs to be factored into your planning.

MOVING WATER:

The faster the water is moving, the greater the risk. A child who has learnt to swim in a swimming pool may have difficulty swimming in water that is moving. This includes fast flowing water in a river; waves, undertow and currents at the beach; and purpose built venues with wave machines. Swimming in flowing water requires increase skills and strength. This needs to be factored into your planning.

WIND SPEED:

As the wind speed increases, so does the risk. Wind speed increases wave heights and decrease water visibility. A calm morning at the beach can change rapidly on the arrival of a strong sea breeze. These potential changes and their effects need to be factored into your planning.

Wind speed information can be obtained from a number of different sources. It is generally announced on daily weather forecasts on television and radio. You can also find information by visiting the bureau of meteorology website(www.bom.gov.au) or using their weather call service that provides state-wide automatic recordings of forecasts.

The “**Beaufort Scale**” chart can also be used to visually determine the wind speed.

Description	Effect on land	Effect on sea	Potential wave height	Speed equivalent
0 calm	Smoke rises vertically.	Surface looks like a mirror	flat	0-2m/s <1 knot
1 light	Smoke follows wind; wind vanes do not work.	Ripples can be seen	5cm	0.3-1.5m/s 4-6 knot
2 light breeze	Leaves rustle, wind, felt on face.	Small wavelets with glassy appearance	10cm	1.6-3.3m/s 10cm
3 Gentle breeze	Leaves and twigs in constant motion, light flag will extend.	Large wavelets crests begin to break	50cm	3.4-5.4m/s 10-16 knots
4 Moderate	Raises dust and loose paper, small branches are moved.	Small wave and some white caps	1.5m	5.5-7.9m/s 11-16 knots
5 Fresh Breeze	Small leafy trees begin to sway; inland water from crested wavelets.	Moderate size wave and many white caps	2.5m	8-10.7m/s 17-21 knots
6 Strong Breeze	Large branches in motion.	Large waves begin to form Bureau of meteorology issues a strong wind warning at 25 knots	4.5m	10.8-13.8m/s 22-27 knots

Further information regarding coastal conditions may be obtained through the Department of planning and infrastructure website <http://www.coastaldata.transport.wa.gov.au/coastalcam/index.html> and beachsafe.org.au

Remember to be aware of, and ready to react to, any changes in the weather when you are swimming outside.

AQUATIC RATIO:

MORE QUALIFIED STAFF = LESS RISK

The Royal Life Saving Society WA **recommend** that the aquatic supervision ratios is observed by the **Department of Sport and Recreation**.

The ratio has been formulated by the Department of Education Outdoor Education and Recreation Guidelines within the **Water-Based Activities Definition**.

Please note this is a recommendation only – for different water activities such as snorkelling, canoeing, etc. please refer to the Department of Education and Training website. <http://det.wa.edu.au/policies/detcms/policy-planning-and-accountability/policies-framework/policies/outdoor-education-and-recreation-activities.en?cat-id=3457100>

Closed Water (pools, rivers, dumps, lakes)

1:12* plus one supervisor for every additional student

***Minimum requirements, actual numbers depending on environment and conditions**

Number of Participants	Number of Qualified Teachers for students in water supervision	Number of Adult in closed water Supervisors (unqualified)	Total Supervisory Team
1-12	1 (up to 12 in water)	1	2
13-24	1 (up to 12 in water)	1	2
25-32	1 (up to 12 in water)	1	2
33-36	1 (up to 12 in water)	2	3
37-48	2 (up to 24 in water)	2	4
49-60	2 (up to 24 in water)	3	5
61-64	2 (up to 24 in water)	4	6
65-72	3 (up to 36 in water)	3	6
73-84	3 (up to 36 in water)	4	7
85-96	3 (up to 36 in water)	5	8
97-108	4 (up to 48 in water)	5	9

Qualified teacher: a teacher who holds a START qualification

Supervisor: an adult who acts in a designated supervisory capacity

Open Water (beaches)

1:8* plus one supervisor for every additional student

***Minimum requirements, actual numbers depending on environment and conditions**

Number of Participants	Number of Qualified Teachers for students in water supervision	Number of Adult beach Supervisors (unqualified)	Total Supervisory Team
1-8	1	1	2
9-16	2	1	3
17-24	2	1	3
25-32	2	2	4
33-40	3	2	5
41-48	3	3	6
49-56	4	3	7
57-64	4	4	8
65-72	5	4	9
73-80	5	5	10
81-88	6	5	11
89-96	6	6	12
97-104	7	6	13

EQUIPMENT THAT MAY BE NEEDED

FIRST AID KIT

Check List:

- CPR flowchart
- Emergency first aid information booklet
- Resuscitation face shield, disposable
- 4 x Antiseptic alcohol swab, sterile
- Antiseptic liquid, 50ml spray
- 10 x Antiseptic alcohol free swab, sterile
- 5 x Burnaid gel sachet, 3.5g
- Cold pack instant, large, boxed
- Combine dressing, 10 x 20cm, sterile
- 3 x Conforming bandage, 5cm, white
- 3 x Conforming bandage, 7.5cm, white
- Crepe bandage, heavy, 10cm, brown
- 4 x Eye pads, sterile Pk1
- 8 x Eyewash ampoule, 30ml
- Eye & wound dressing, first aid module
- Burn, first aid module soft case
- Forceps, stainless steel 12.5cm
- 5 x Gauze swab sterile, 7.5 x 7.5cm (pk 5)
- 5 x Gloves, disposable, large (pk 2) No Latex
- Large plastic bag resealable, 230x305mm
- Med. plastic bag resealable, 150x230mm
- Small plastic bag resealable, 100x125mm
- 1 x Non-adherent dressing, 10cm x 10cm
- 3 x Non-adherent dressing, 10cm x 7.5cm
- 6 x Non-adherent dressing, 5cm x 5cm
- Notebook with pencil
- Paper tape, 2.5cm x 9m, hypoallergenic
- 6 x Povi-iodine swabs
- Rescue thermal blanket, silver space
- Safety pins card of 12 assorted
- Scissors, stainless steel 12.5cm
- 10 x Splinter probe, 4cm, disposable
- Thermometer digital
- 2 x Triangular bandage, cotton 110cm
- Wound closure strips, 6 x 75mm (pk 5)
- Wound dressing #14 sterile
- Wound dressing #15 sterile
- Thermos of hot water



RESCUE EQUIPMENT:

- Rescue tube x 2
- Whistle
- Rescue Throw Bag
- Woollen Blanket – Compact sleeping bag
- Loud Hailer
- Throw Line
- Stretcher if available
- Siren (Red portable)
- Swimming Goggles x 6
- Vests – Teachers
- Rashies – Students



All Equipment can be purchased through **ROYAL LIFE SAVING SOCIETY**
<http://www.royallifesavingwa.com.au/>

S. T. A. R. T

AQUATIC ACTIVITY RISK ASSESSMENT & MANAGEMENT FORM

ACTIVITY INFORMATION: <i>Inland Waterway or Surf (Circle)</i>				
Activity Type / Name:				
Venue Name (River, Dam etc. / Beach Code or GPS Position):				
Date:				
Time:				
Number of Instructors/Teachers - Students Ratios:				
RISK ASSESSMENT (only applicable if WATER ACTIVITIES NOT CANCELLED)				
As MINIMUM , the following factors MUST be ASSESSED when DETERMINING WATER SAFETY :				
<ul style="list-style-type: none"> Weather conditions – B.O.M Site 4-day forecast Skill / competency LEVELS of participants Number of participants Supervision and Rescue equipment available for use Local knowledge of the environment (inland waterway or beach) to be used Other location specific HAZARDS. 				
POTENTIAL RISK:		Definition of Risk		Comments:
(Please CIRCLE ✓ / X if RISK has been ASSESSED)				
Weather conditions are considered inclement	✓ / X	Strong winds Impending storm weather		
Skill/competency levels of participant is low or unknown for the activity	✓ / X	No level of skill/competency. Limited level of skill/competency Mixed level of skill/competency (*Always tick for BEACH ACTIVITIES)		
Number of participants is HIGH	✓ / X	More than 8 students per 1 START Qualified Teacher – SURF More than 12 students per 1 START Qualified Teacher - INLAND		
No Qualified Supervising Teacher and/or limited RESCUE EQUIPMENT available.	✓ / X	Limited access equipment		
No/limited knowledge of the environment (inland waterway – beach)	✓ / X	No knowledge of the environment		
Other LOCATION SPECIFIC HAZARDS .	✓ / X	Stingers, submerged rocks, jetty/wharf or debris etc.		
Physical CHECK of Water	✓ / X	Date & Time		
Check with Rangers/Lifeguards	✓ / X	Date & Time		
TOTAL - ✓	/ 8			
MINIMUM RATIOS		RISK ASSESSMENT		
		(START Qualified Teacher: Students)		
Please circle corresponding – RATIO to ✓		High Risk 0 – 2 / ✓	Moderate Risk 3 – 5 / ✓	Low Risk 6 – 8 / ✓
UNQUALIFIED STUDENTS	Activity to be CANCELLED	1:6 (Surf) 1:10 (Inland)	1:8 (Surf) 1:12 (Inland)	Students number is under 8 (Surf), Under 12 (Inland), Only START Qualified Teachers required.

RISK MANAGEMENT		
If any of the POINTS below are ASSESSED as RISKS , the START Qualified Teacher must employ ACTIONS to IDENTIFY, CONTROL or ELIMINATE the RISK to a MINIMUM .		
Please CIRCLE tick or cross.		Comments:
Decreasing the MINIMUM STANDARD RATIOS	√ / X	
Moving the ACTIVITY to another location that presents less RISK.	√ / X	
Delaying, postponing or cancelling the event.	√ / X	
Ensuring a FULL SUPERVISION is available.	√ / X	
Increasing the amount of RESCUE EQUIPMENT available.	√ / X	
Other (Please state)	√ / X	
Other (Please state)	√ / X	
START QUALIFIED TEACHER INFORMATION		
START QUALIFIED TEACHER Name:		
START QUALIFIED TEACHER Name:		
Reference:		
<ul style="list-style-type: none"> • Royal Life Saving WA • SURF LIFE SAVING WA • Department of Education and Training / OUTDOOR EDUCATION and RECREATION ACTIVITIES 		

FACT SHEETS



**WESTERN
AUSTRALIA**



Environmental Factors Guideline

Surf Life Saving Australia

July 2018



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1 TSUNAMI

1.1 DEFINITIONS

Tsunami - a series of waves travelling across the ocean due to a sudden displacement of a large body of water. This displacement can be caused by events such as undersea earthquakes, landslides, volcanic eruptions or even asteroid impacts.

Emergency Management Australia (EMA) - represents is charged with assisting States and Territories to develop their emergency management capabilities to protect all Australian citizens and their property. It provides national leadership in the development of measures to reduce risk to communities and manage the consequences of disasters. EMA is part of the Federal Attorney-General's Department.

State Emergency Authority (SEA) - Has the overall responsibility of coordinating and managing wide-scale emergencies and disasters.

Bureau of Meteorology (BOM) - provides overall national strategic planning, management and coordination of the Bureau's integrated observations, telecommunications and computing infrastructure and its weather, climate and hydrological services. It also includes the National Climate Centre, the Bureau of Meteorology Training Centre and the Bureau of Meteorology Research Centre.

1.2 EXECUTIVE SUMMARY

- Surf Life Saving Australia has developed a tsunami response plan including pre-impact, impact and post-impact guidelines.
- Surf Life Saving, and other lifesaving services, will be the first point for warning, closing and evacuating beaches.
- This would be done only if it is safe to do so, and as directed by the state/territory Surf Life Saving centre or service supervisor.
- The appropriate authority will instruct Surf Life Saving when to begin rescue and recovery following the impact of tsunami.
- During a tsunami event, personal safety remains the priority and action should only be taken when it is safe to do so.

1.3 SLSA & TSUNAMI EMERGENCY RESPONSE

SLS works closely with council lifeguard services in managing Australia's beaches. SLS is the primary responder on beach management should a tsunami occur on the Australian coastline. SLS has the capacity to assist by:

- warning the beach-going public through its communication points around the coastline, including the public address system and;
- providing adequate rescue and emergency care, through the active membership volunteer and professional surf lifesaving clubs, and support operation services.

The SEA in each state/territory will have the overall responsibility of coordinating and managing of a tsunami warning. The SEA may also delegate particular responsibilities to SLS, such as warning the community or assisting in rescue and recovery. It is important that SLS should act upon its Tsunami Response Plan only after it has been asked to do so by the relevant SEA. It is not SLS's responsibility to determine if a Tsunami Warning should be issued or not, with subsequent plans put in place.

The Bureau of Meteorology (the Bureau) is the delegated authority to issue a tsunami warning. The SEA then determines what level of response should be taken by relevant authorities, such as SLS.

1.4 SLS RESPONSE GUIDELINES

Surf Life Saving Australia has developed a response guideline for a tsunami event. This guideline explains the processes that are to be considered by Surf Life Saving State/Territory centres, and associated bodies, when developing a Tsunami Response Plan. All lifesaving services, including lifesaving clubs, council lifeguards, support operations etc, must contact their respective state/territory centre to confirm their state/territory specific operational procedures.

There are three distinct components of a tsunami response plan:

- **Pre-impact.** Activities carried out during this period are precautionary and are focused on protecting life.
- **Impact.** This phase is likely to last several hours, within which the impact of a series of separate waves will occur.
- **Post-impact.** This phase can be associated with the time directly after the first wave and/or after a series of waves. It begins after the damaging effects of the tsunami have been experienced.

For regional and distant tsunami, there may be a period before impact of several hours to almost a day. This depends on where the tsunami has been generated.

It is critical that this time is used effectively to:

- ensure sufficient warning time is given
- evacuate people at risk
- implement measures to reduce property damage
- minimise disruption to essential services and;
- reduce the requirement for post impact functions.

Lifesaving services will use the appropriate response plan according to the level of warning issued by the Bureau of Meteorology (BOM).

There are three levels of warning:

- No action required.
- Marine based threat.
- Marine and land based threat.

1.5 IMPORTANT NOTES

Always confirm with your direct supervisor before initiating, or finalising any component of a response plan.

The Australian Tsunami Warning System has been implemented to track any possibility of tsunami affecting the Australian coastline. However, there is still the possibility one may impact on Australia without any warning at all. It is important to know what natural signs could come before a tsunami.

If a tsunami wave is about to impact on the coastline you are responsible for, and there is no time to confirm with your direct Lifesaving Supervisor (ie. Surfcom or area Director of Lifesaving) you could:

- evacuate people immediately from the water and off the beach area using emergency evacuation flash and alarm, and public address systems
- notify Surfcom or area Director of Lifesaving or;
- monitor situation if possible.

1.5.1 No threat

If this warning is issued, you will receive the following notification: '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'. A Level 1 warning to the Australian public is a warning that lifesaving services need to be aware of. There may not be

an immediate major threat to the community, however, normal wave patterns and tidal currents may be affected enough to cause unusual conditions at the coastline that could impact on your lifesaving services area. These conditions can last up to ten days after a tsunami event.

There may not be any obvious features that a tsunami has impacted your area and the three components of a tsunami response plan, being pre-impact, impact and post-impact, may not be directly evident. It is important to keep in mind the following actions:

Monitor surf conditions for unusual rip and tidal currents - up to six days after.

Advise Surfcoms of any change in conditions - up to ten days after.

Increase surveillance of the people using the coastline, especially through deployment of Support Operations at unpatrolled locations - up to ten days after.

1.5.2 Marine based threat

If this warning is issued, you will receive the following notification: 'Warning of potentially dangerous waves, strong ocean currents in the marine environment and the possibility of only some localised overflow onto the immediate foreshore'.

1.5.2.1 Pre-impact

Below are examples of what a tsunami response plan for Level 2 may include:

- confirmation that the tsunami warning is official with your direct lifesaving service supervisor i.e. Director of Lifesaving
- coordination of your local lifesaving service according to your direct supervisor's instructions
- warning any communities in the direct vicinity of the beach using public address systems and/or lifesaving craft (only if directed and is safe to do so)
- evacuation of any public from the immediate sand/beach according to the level of warning using PA system and/or evacuation flag
- pre-deployment of resources to staging areas outside the likely impact area (at Level 2 the staging area may be the back of the beach)
- restriction of access to the likely impact areas by establishing signs i.e. Beach Closed signs and red flag or other as directed (at Level 2 lifesaving services may remain at the back of the beach to continue evacuation)
- support operations vessels on standby
- support operation vessels/craft positioned according to Lifesaving Supervisor
- monitoring of likely impact areas
- coastal watch cameras and/or support operation craft i.e. offshore boats or;
- management of the media - direct all media enquiries to State/Territory centre.

1.5.2.2 Impact

Below are examples of what a tsunami response plan for Level 2 may include:

- monitoring of likely impact areas (at Level 2 this can be from the back of the beach)
- detection of tsunami impact
- continued warning and evacuation of threatened communities to safe areas. At Level 2 this can be conducted from the beach or;
- rescue of persons only if safe to do so and/or have been instructed to do so.

1.5.2.3 Post-impact

Post impact can be seen for several hours after initial impact.

Below are examples of what a tsunami response plan for Level 2 may include:

- confirm ability to proceed with Post-impact procedures with direct Lifesaving Services Supervisor
- reconnaissance of areas likely to have been impacted
- search and rescue of people in the immediate coastal environment
- treatment of sick or injured people
- re-open beach only when direct lifesaving service supervisor has informed you and you have the capacity to do so (do not take instructions from media) or;
- debrief.

1.5.3 Land and marine based threat

If this warning is issued, you will receive the following notification: 'Warning for low-lying coastal areas of major land inundation, flooding, dangerous waves and strong ocean currents'.

1.5.3.1 Pre-impact

Below are examples of what a tsunami response plan for Level 3 may include:

- confirmation that the tsunami warning is official with your direct lifesaving service supervisor i.e. Director of Lifesaving
- coordination of your local lifesaving service according to your direct supervisor's instructions
- warning any communities in the direct vicinity of the beach using public address systems and/or lifesaving craft (only if directed and is safe to do so)
- evacuation of any public from the immediate sand/beach according to the level of warning using PA system and/or evacuation flag
- pre-deployment of resources to staging areas outside the likely impact area (at Level 3, staging area may be a few kilometres inland to be pre-determined)
- restriction of access to the likely impact areas by establishing signs i.e. Beach Closed signs and red flag or other as directed (at Level 3, communicate to the public via PA system and signage and evaluate all lifesaving service personnel and equipment where possible to a 'staging area' inland)
- support operations vessels on standby (at Level 3, all mobile support operation vessels evacuated to staging area)
- monitoring of likely impact areas
- Level 3 coastal watch cameras and/or aerial surveillance i.e. helicopters only or;
- management of the media (direct all media enquiries to State/Territory centres).

1.5.3.2 Impact

Below are examples of what a tsunami response plan for level 3 may include:

- monitoring of likely impact areas (at Level 3, from 'staging area' and using technology such as Coastal Watch)
- detection of tsunami impact
- continued warning and evacuation of threatened communities to safe areas (at Level 3, only to be conducted by aerial capabilities) or;
- rescue of persons (at Level 3, it is highly recommended not to perform a rescue during Impact phase unless via aerial capabilities).

1.5.3.3 Post-impact

Post impact can be seen for several hours or even days after initial impact.

Below are examples of what a tsunami response plan for Level 3 may include:

- confirm ability to proceed with post impact procedures with direct Lifesaving Services Supervisor
- reconnaissance of areas likely to have been impacted
- search and rescue of people in the aquatic environment (at Level 3, primarily the immediate coastal environment. However, it may be tasked as a secondary priority to inland search and rescue)
- treatment of sick or injured people
- re-open beach only when a direct lifesaving service supervisor has informed you and you have the capacity (do not take instructions from media) or;
- debrief

1.5.4 Procedures to be followed after the impact of tsunami

Actions may include:

- reconnaissance of areas likely to have been impacted
- search and rescue of people trapped and injured
- response to collapsed structures, fires and hazmat incidents
- treatment of sick and injured people
- provision of accommodation and welfare services for displaced people or;
- management of pets and companion animals belonging to displaced persons.

1.6 FURTHER INFORMATION

For further information regarding your specific state based operational procedure, Surf Life Saving state/territory contacts are:

- New South Wales (02) 9471 8000
- Queensland (07) 3846 8000
- Victoria (03) 9676 6900
- South Australia (08) 8354 6900
- Western Australia (08) 9207 6666
- Tasmania (03) 6223 5555
- Northern Territory (08) 8985 6588

State Emergency Authorities (SEA) in each state/territory are:

- Queensland - Emergency Management Queensland (EMQ)
- New South Wales - State Emergency Service (SES)
- Victoria - State Emergency Service (SES)
- Tasmania - Police
- South Australia - State Emergency Service (SES)
- Western Australia - Fire and Emergency Services Authority (FESA)
- Northern Territory - Police Fire and Emergency Services (PFES)

2 SUN SAFETY

2.1 INTRODUCTION

Surf Life Saving Australia (SLSA) will ensure that all members who participate in SLSA activities are both informed and protected against the harmful effects of the sun's ultraviolet radiation (UVR) whenever they are outdoors. SLSA will promote to all parties a knowledge of the great importance of the need for protection from skin and eye damage caused by UVR. All Members must participate in and promote all sun safe guideline suggestions.

The sun safety guideline is one of the most important policies developed, as it may directly affect the health of SLSA Members. This Guideline is acknowledged as the minimum standard for a SLS lifesavers and ALS lifeguards. They now closely correspond to the recommendations of Workcover and Cancer Councils in each State for skin protection for outside workers.

2.2 THE FACTS

- a. Australia has the highest rate of skin cancer in the world. Over two-thirds of Australians will develop some form of skin cancer during their lives.
- b. About 1000 people in Australia die each year from skin cancer.
- c. Too much exposure to UVR or repeated sunburn, especially in childhood, damages the skin increasing the risk of skin cancer in later life.
Note: both cumulative exposure (without actual 'sunburn') and repeated sunburn (not necessarily 'severe') contribute to increasing the risk.
- d. Severe sunburn, particularly in the young increases the later risk of skin damage and skin cancers.
- e. If we can protect people from birth to 17 years of age they have 75% less risk of developing skin cancer in later life.
- f. A suntan is a sign of damaged and weakened skin.
- g. School, recreation and sport may expose people to the sun for long periods.
- h. The style, type and amount of clothing we wear often does not suit our intense sunshine with its high levels of UVR.
- i. Lifelong participation in outdoor sport and recreation mean many Australians are exposed to dangerously high levels of UVR.
- j. 95% of skin cancer can be cured if detected and treated early.
- k. UVR has been shown to cause eye damage, which includes cataracts and pterygium. This damage may start in childhood.
- l. Reflected UVR may cause sunburn even under shelter, and other methods of sun protection are essential.
- m. UVR is present in high levels on cloudy days also, and all sun protection methods should be used on cloudy, as well as sunny days.
- n. There is no such thing as "windburn" – this is solar damage (the same as "sunburn") from UVR, usually in cloudy weather as UVR easily penetrates clouds.

2.3 SUN SAFETY FOR SLSA ACTIVITIES

The health of participants in surf lifesaving activities is of a primary concern to SLSA.

It is far better to prevent skin cancer by regularly practising simple protective measures. Skin cancer is preventable, and like any other medical condition is best dealt with by simple protective measures. It is also acknowledged that cataracts and other eye diseases are related to UVR and that correct sunglasses will prevent or reduce these eye problems.

SLSA strongly recommends sun protection during all SLSA activities. It is the responsibility of all SLSA Members to use all protective equipment provided (hats, uniforms, sunscreen, shade structures, sunglasses etc), adopt sun safe practices (re-applying sunscreen, minimising time outdoors during peak UV times etc). As well as their own personal

protection, SLSA Members should set an example and be a good role model for younger Members and the community in general.

The following standards outlined in this Guideline are acknowledged as minimum standards for the volunteer lifesaver and SLSA professional lifeguards.

2.4 DEFINITIONS OF SUN SENSE PROTECTION

2.4.1 Shelter

- a. Materials used to provide shade should cast a dark shadow (i.e. block out UVR to a minimum of 50%).
- b. Provision of either natural or artificial shade over the patrol arena or other patrolled areas, to give adequate shade for those on patrol.
- c. Protective covering over all patrol or observations towers.
- d. Specific shaded areas in carnivals to provide shade for both competitors and officials.

NOTE: It is possible to get sunburn under shelter due to reflection of UVR from sand and water. Other precautions listed must still be used.

2.4.2 “Protective clothing”

In this Guideline means the use of:

- a. hats - wide-brimmed (minimum brim width of 8cm.) with dark (non-reflecting) underside of the brim, or “legionnaire style” hats - those having side pieces protecting the ears and neck;
- b. long-sleeved shirts with high neck collars – made of UPF 50+ material (close-weave material that blocks UVR);
- c. shorts - loose and long-legged.

2.4.3 Sunscreen

- a. use broad spectrum, water resistant SPF 30+ sunscreen;
- b. apply at least 20 minutes before exposure so that cream can be “absorbed” into the skin, for effective protection;
- c. reapply every 2-3 hours, or more often after swimming, or sweating heavily.

Note: With higher SPF sunscreens a small number of people may be sensitive to some types of sunscreens. If skin rashes occur, choose a brand designed for sensitive skin. (It is important for people who spend as much time outdoors as lifesavers to maintain the highest SPF).

Sunglasses – 100% UV resistant conforming to Australian Standard 1067 (as labelled on the swing tag) - having side protection from the sun’s rays, but which do NOT obscure peripheral vision.

2.5 RESPONSIBILITIES

2.5.1 Section 1 - All levels of SLSA

Taking into consideration the harmful effects from the ineffective protection of open weave clothing, when choosing uniforms SLSA and affiliates will conform to guidelines for sun safe clothing with tightly woven material with a UVR protection factor (UPF) of 50 or 50+.

SLSA and affiliates will strongly encourage the use of:

- a. sufficient shelter for patrols using either natural, or artificial shelters;

- b. patrol hats, shirts and shorts to conform with the standards above;
- c. broad-spectrum water-resistant SPF 30+sunscreen and sunglasses for all activities.

On patrol, maximum use will be made of existing natural shade – Patrol and Club Captains must enforce this. Where natural shade is not adequate SLSA and affiliates will ensure suitable structures or provide portable shade structures for Members wherever.

In accordance with SLSA's Patrol Uniform Guideline, it is mandatory that patrol Members wear the patrol uniforms provided at all times, except in a rescue situation or where conditions do not permit.

SLSA and affiliates will endeavor to schedule outdoor activities outside the hours of 10.00 am to 2.00pm (11.00 am and 3.00 pm Daylight Saving Time). This is especially important with junior carnivals or combined events.

Carnival Referees and Sectional Referees will promote officials' use of broad-spectrum water-resistant SPF 30+ sunscreen (with zinc cream on specific areas, if necessary), at all times during SLSA surf carnivals.

Note: Given the nature of surf lifesaving carnivals, which may run all day, SLSA strongly promotes its officials and competitors and observers to maintain high standards of sun safe including protective clothing, sunscreen and shelter.

Whilst participating in SLSA activities on the beach, or waiting for water events, members will be strongly encouraged to wear a wide brim hat or similar (see above) that protects the face, ears, neck, shoulders and crown of the head.

SLSA will promote sun safety in a positive way, through a variety of public relation tools, including written literature and education programs.

SLSA will strongly encourage trainers, coaches, officials and members in prominent positions to act as strong role models, to promote and use all sun protection available.

SLSA officials and carers will revise sun protection measures on a yearly basis.

Competitors are encouraged to wear sun protective clothing up to the start line of their event.

On completion of the race/event hats and T-shirts should be replaced.

March Past teams are encouraged to wear hats, T-shirts and shorts while competing. These should be wide-brimmed hats and long sleeved shirts with high collars and a UPF rating of 50 or higher, and shorts.

2.5.2 Section 2 - Parents and Guardians - Junior Activities

Club officials, parents and carers must apply the above standards wherever possible.

The following sun sense rules are strongly recommended:

- a. Literature on prevention of skin and eye damage should be given to all parents/guardians when their child/children are signed on each season.
- b. Parents/guardians of children participating in surf lifesaving activities should be provided with the SLSA sun safety guideline and encouraged to comply with it.
- c. All Junior Activities Officials parents/guardians are to promote the use of these protective measures by example.
- d. Parents/guardians should be strongly encouraged to purchase sun safe hats and protective uniforms for their child's/children's use and provide SPF 30+ broad-spectrum water-resistant sunscreen for their child/children during SLSA activities.
- e. Parents/guardians should promote sun protective behaviour to their child/children by personal example.

- f. Parents should provide Australian Standard (labeled as AS1067) sunglasses that filter 100% of UV rays for their child/children.
- g. For more information, please contact Cancer Council Australia.

2.6 IMPORTANT SAFETY TIPS TO REMEMBER

The six Ss'

- a. SHADE – natural or man-made
- b. SLIP! – on a T-shirt
- c. SLOP! – on a Sunscreen
- d. SLAP! – on a Hat
- e. SUNGLASSES – to Australian Standards
- f. SUNSHINE - awareness of times of the day especially around midday

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2.8 FURTHER READING

For training and information on skin protection for outdoor workers

- WorkCover - State Departments
- Cancer Council – States

3 LIGHTNING

3.1 INTRODUCTION

In statistical terms, lightning poses a greater threat to individuals than almost any other natural hazard in Australia, accounting for five to ten lives and well over 100 injuries annually. These figures are likely to increase in line with the growing proportion of people who are engaging in outdoor recreational activities.

Of the many lightning strike injuries each year, about 80 are due to people using normal telephones during thunderstorms when the phone system may suddenly become part of a highly charged electrical circuit. Related injuries may include hearing damage, burns and electrocution.

3.2 WHAT IS LIGHTNING?

Lightning is the discharge produced when differences between ground and atmospheric electrical charge are large enough (several hundred million volts) to overcome the insulating effects of air.

Lightning strikes can occur within the cloud, between clouds or between clouds and the ground. An average thunderstorm can release several hundred megawatts of electrical power.

Thunder is the sound produced by the explosive action of air heated by the lightning strike to temperatures as high as 20,000 degrees Celsius.

3.3 PROTECTION AGAINST LIGHTNING STRIKES

3.3.1 Outdoor Protection

The 30/30 Rule

The 30/30 Rule is recommended for lightning safety in the Australian Standard on Lightning Protection. The rule is designed to provide guidance on the suspension and resumption of activities in an outdoor environment.

It sets out the following principals:

Close Beach – Where the flash to bang count is 30 seconds, indicating that the lightning is 10km away. This is associated with significant risk that the strike could be at the patrol arena.

Open Beach – Where 30 minutes has passed since the last sighting of lightning. A typical storm travels at about 40 km/h. Waiting 30 minutes allows the thunderstorm to be approximately 20km away.

- i. With an approaching thunderstorm, and where the 30/30 Rule applies, all persons should be advised to leave the water and clear the beach immediately. The Patrol Captain should remove the patrol flags, close the beach and then the patrol should retire to the shelter of the clubhouse, maintaining a surveillance lookout from there.
- ii. Seek shelter in a 'hard top' vehicle or building - avoid small structures, patrol shelters, fabric tents and isolated or small groups of trees.
- iii. If in the open, away from shelter, crouch down (singly), preferably in a hollow, with feet together and remove metal objects from head and body. Do not lie down but avoid being the highest object in the vicinity.
- iv. If swimming, surfing or in a boat leave the water immediately and seek shelter.

- v. In the event of a surf carnival or special event, all effort should be made to ensure the safety of all personnel. All effort should be made by the carnival referee and/or organisers to delay the event until the danger has passed or cancel/postpone events completely.
- vi. Avoid the use of portable radios and mobile telephones during a thunderstorm. If emergency calls are required keep them brief.

3.3.2 Indoor Protection

- i. Avoid the use of telephones, radios, fax machines, computers and other electrical equipment. If emergency calls are required keep them brief.
- ii. Before the storm arrives disconnect external aerials and power leads to radios and other appliances.

3.4 FIRST AID

The normal emergency care procedures apply to any patients effected by lightning strikes. Ensure that the rescuer is in no danger of being struck by lightning. If the patient is not breathing commence resuscitation immediately.

3.5 DEFINITIONS

Lightning, 'means the discharge produced when differences between ground and atmospheric electrical charge are large enough (several hundred million volts) to overcome the insulating effects of air.'

Thunder, 'means the sound produced by the explosive action of air heated by the lightning strike to temperatures as high as 20,000 degrees Celsius.'

3.6 REFERENCES

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- Available at: http://www.mja.com.au/public/issues/177_01_010702/mak10009_fm.html SLSA (2003)



SLSA Guideline

Title: Lightning
Document Number: 2.2
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INTRODUCTION

There are 5-10 deaths and over 100 injuries caused by lightning in Australia each year. Most lightning related injuries result from people using landline telephones during electrical storms. Being outdoors during a thunderstorm increases the risk of being struck by lightning or affected by close lightning strikes. This policy outlines what action should be taken to avoid the adverse consequences of lightning strikes during thunderstorms for SLSA activities.

WHAT IS LIGHTNING?

Lightning is a complex electrostatic phenomenon created when the normal distribution of electrical charges in the earth's atmosphere are altered during storms. Clouds become statically charged during storms, thought to be because of increased friction and temperature changes, and this alteration can decrease the normally insulating properties of air. When the static charge of the cloud interacts with the magnetic field of the earth or another statically charged cloud nearby, a conductive pathway is created. The rapid transfer of excess static charge via the newly created pathway is what results in the flash of light that we see. When static charge is transferred in this way, it also heats up the surrounding atmosphere, creating a shockwave that we hear as thunder.

PROTECTION AGAINST LIGHTNING STRIKES

Outdoor Protection

The 30/30 Rule:

The 30/30 Rule is recommended for lightning safety in the *AS/NZS 1768:2007 Lightning protection*. The rule is designed to provide guidance on the suspension and resumption of activities in an outdoor environment.

The 30/30 Rule sets out the following principals:

Close the beach

- When the 'flash to bang count' (i.e. the time between seeing the lightning and hearing the thunder) is 30 seconds or less. This indicates that the lightning is less than 10km away and is associated with significant risk that the strike could be at the patrol arena.

Open the beach

- When 30 minutes has passed since the last sighting of any lightning. A typical storm travels at about 40 km/h. Waiting 30 minutes allows the thunderstorm to be approximately 20km away.

- i. With an approaching thunderstorm, and where the 30/30 Rule applies, all persons should be advised to leave the water and clear the beach immediately. The Patrol Captain should remove the patrol flags, close the beach and then the patrol should retire to the shelter of the clubhouse, maintaining a surveillance lookout from there.
- ii. Seek shelter in a 'hard top' vehicle or building - avoid small structures, patrol shelters, fabric tents and isolated or small groups of trees as you may still be at risk from lightning strikes.
- iii. If in the open, away from shelter, crouch down (singly), preferably in a hollow, with feet together and remove metal objects from head and body. You do not need to lie down, but you do need to avoid being the highest object in the vicinity.
- iv. If swimming, surfing or in a boat leave the water immediately and seek shelter.
- v. In the event of a surf carnival or special event, all effort should be made to ensure the safety of all personnel. All effort should be made by the carnival referee and/or organisers to delay the event until the danger has passed or cancel/postpone events completely.
- vi. Avoid the use of portable radios and mobile telephones during a thunderstorm. If emergency calls are required keep them brief.



Indoor Protection

- i. Avoid the use of telephones, radios, fax machines, computers and other electrical equipment. If emergency calls are required keep them brief.
- ii. Before the storm arrives disconnect external aerials and power leads to radios and other appliances.

FIRST AID

The normal emergency care procedures apply to any patients affected by lightning strikes. Ensure that the rescuer is in no danger of being struck by lightning. If the patient is not breathing commence resuscitation immediately.



Marine Creature Guideline

Surf Life Saving Australia

July 2018



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1 SHARKS

1.1 INTRODUCTION

The probability of a shark related incident is unlikely and other forms of accidental death and injury particularly drowning is far more common for beach users. The risk of a shark related incident is very real however and this Guideline provides a guide for the public and the provision of lifesaving services in recognising and minimising this risk whilst sharing an environment that sharks may inhabit.

1.2 AIM

This guideline aims to:

- a. help identify existing and potential health and safety issues;
- b. raise the overall awareness of hazard identification and risk reduction; and
- c. assist in establishing risk management procedures.

1.3 DEFINITIONS

For the purposes of this document the word shark is used in the broad sense to include all sharks, although it is recognised that not all sharks are dangerous with nearly all fatal attacks in coastal waters being attributed to just three species – bull sharks, tiger sharks and white sharks (the latter also known as great white or white pointer sharks).

Shark safety or control equipment may include mesh nets or drum lines, power craft strategically placed for shark patrol and dispersing sharks from beach areas, or specialty first aid provisions including specialist personnel and trauma-haemorrhage kits. Please note, mesh nets and drum lines do not exist as a barrier excluding sharks from swimmers. They are fishing devices designed to reduce the population of sharks in a shark control area.

1.4 PERSONAL SAFETY

Some safety guidelines that may assist in reducing the risk of an incident involving sharks and humans include:

- a. always swim between the red and yellow patrol flags and surf at patrolled beaches. There is an increased chance that shark safety equipment is in place and rescue services are in close proximity should an incident occur;
- b. obey the lifesavers' and lifeguards' advice and heed all flags and notice board warnings. Leave the water immediately if a shark is sighted or if advised by the lifesavers/lifeguards (siren, bell or red and white quartered flags) that a shark has been sighted;
- c. avoid entering the water after dusk, at night or before dawn when some sharks are typically more active;
- d. avoid swimming in or near murky or silt-laden waters;
- e. avoid swimming in or near river mouths, creeks, deep channels and canals;
- f. avoid swimming or surfing alone;
- g. avoid swimming or surfing when bleeding;
- h. avoid swimming or surfing near schools of fish; and
- i. avoid swimming near, or interfere with, shark control equipment.

It is important to recognise that there is always some inherent risk when using an environment inhabited by sharks. The risk of a shark related incidents varies according to the time of day, time of year, the geographic location and species of shark in the area. Other forms of accidental death and injury, particularly drowning, are far more common for beach users.

1.5 ACTIONS ON SIGHTINGS

If a shark is sighted the following precautions are recommended:

- a. request all swimmers to leave the water;
- b. close the beach to all swimming and post appropriate signage (if specific signage is not available standard “no swimming” and “danger” signs may be utilised);
- c. advise beach visitors to remain clear of the water;
- d. do not attempt to kill, capture or injure the animal;
- e. record as much detail regarding the sighting as possible, including the size, number and behaviour of the shark(s), presence of other marine creatures (e.g. fish schools, dolphins, seals) and the response of the shark(s) to any attempt at dispersing them from the immediate vicinity;
- f. the beach should be closed for a minimum of one hour from the time of the LAST sighting, with increased surveillance for an additional hour at the location of the sighting and surrounding areas until the potential risk is deemed to have subsided; and
- g. if absolutely necessary, engage power craft or aerial assets and attempt to disperse the shark(s) from the area by using engine noise and water surface disruption (care needs to be taken to ensure the lives of the operator and bystanders are not endangered).

Note: the effectiveness and value of power craft disbursement is currently unknown and the first preference would be to close the beach and for the beach to remain closed until such time that the shark is deemed to have left the area.

1.6 ACTIONS IF SHARK ATTACK

Shark attacks can result in massive tissue damage and severe blood loss. The following general treatment applies (specific information is contained within the SLSA training manual):

- a. Bring the patient to the beach as quickly as possible.
- b. Apply immediate first aid.
- c. Co-ordinate hospital transport and pre-hospital emergency care.
- d. Follow precautions outlined in ‘Actions on Sightings’.
- e. Advise relevant local and State Government Departments as soon as possible and refer to any state/territory ‘Shark Response Plan’ where applicable (currently established in SA and WA).

1.7 SHARK CONTROL PROGRAM

Refer to state/territory guideline where applicable.

1.8 FURTHER ADVICE AND INFORMATION

If you require further advice or assistance please contact Surf Life Saving Australia on (02) 9215 8000 or your state centre:

New South Wales	(02) 9471 8000
Queensland	(07) 3846 8000
Victoria	(03) 9676 6900
South Australia	(08) 8354 6900
Western Australia	(08) 9207 6666
Tasmania	(03) 6223 5555
Northern Territory	(08) 8985 6588

2 CROCODILES

2.1 INTRODUCTION

This Guideline provides a guide to recognising and overcoming risks associated with the provision of Surf Life Saving Services in regions which crocodiles may inhabit.

2.2 AIM

This guideline aims to:

- a. help identify existing and potential health and safety issues;
- b. raise the overall awareness of hazard identification and risk reduction; and
- c. assist in establishing risk management procedures.

2.3 DEFINITIONS

For the purposes of this document the word crocodile is used in the broad sense to include all crocodiles, alligator, caimans, gharials.

2.4 ACTIONS ON SIGHTING

If a crocodile is sighted the following precautions are recommended:

- a. request all swimmers to leave the water;
- b. close the beach to all swimming and post appropriate signage (if specific signage is not available standard “no swimming” and “danger” signs may be utilised);
- c. advise beach visitors to remain clear of the water’s edge;
- d. do not attempt to kill, capture or injure the animal;
- e. record as much detail regarding the sighting as possible; and
- f. contact relevant local and State government Departments.

2.5 ACTIONS IN EVENT OF CROCODILE ATTACK

Shark or crocodile attack and powerboat injuries can result in massive tissue damage and severe blood loss. The following general treatment applies (specific information is contained within the SLSA training manual):

- a. bring the patient to the beach as quickly as possible;
- b. apply immediate first aid;
- c. co-ordinate hospital transport and pre-hospital emergency care; and
- d. follow precautions outlined in ‘Action on Sighting’.

2.6 FUTHER ADVICE AND INFORMATION

If you require further advice or assistance please contact Surf Life Saving Australia on (02) 9215 8000 or your state centre:

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Surf Life Saving Australia Policy

Policy Name:	Shark Safety
Policy Number:	1.10
Issued:	July 2010

INTRODUCTION

The probability of a shark related incident is unlikely and other forms of accidental death and injury particularly drowning are far more common for beach users. However, the risk of a shark related incident is real and this policy provides a guide for the public and the provision of lifesaving services in recognising and minimising this risk whilst sharing an environment that sharks may inhabit.

AIM

This policy aims to:

1. Help identify existing and potential health and safety issues.
2. Raise the overall awareness of hazard identification and risk reduction.
3. Assist in establishing risk management procedures.

DEFINITIONS

For the purposes of this document the word shark is used in the broad sense to include all sharks, although it is recognised that not all sharks are dangerous with nearly all fatal attacks in coastal waters being attributed to just three species – bull sharks, tiger sharks and white sharks (the latter also known as great white or white pointer sharks).

Shark safety or control equipment may include mesh nets or drum lines, power craft strategically placed for shark patrol and dispersing sharks from beach areas, or specialty first aid provisions including specialist personnel and trauma-haemorrhage kits. Please note, mesh nets and drum lines do not exist as a barrier excluding sharks from swimmers. They are fishing devices designed to reduce the population of sharks in a shark control area.

PERSONAL SAFETY

Some safety guidelines that may assist in reducing the risk of an incident involving sharks and humans include:

- Always swim between the red and yellow patrol flags and surf at patrolled beaches. There is an increased chance that shark safety equipment is in place and rescue services are in close proximity should an incident occur.
- Obey the lifesavers' and lifeguards' advice, and heed all flags and notice board warnings. Leave the water immediately if a shark is sighted or if advised by the lifesavers/lifeguards (siren, bell or red and white quartered flags) that a shark has been sighted.
- Avoid entering the water after dusk, at night or before dawn when some sharks are typically more active.
- Avoid swimming in or near murky or silt-laden waters.
- Avoid swimming in or near river mouths, creeks, deep channels and canals
- Avoid swimming or surfing alone.
- Avoid swimming or surfing when bleeding.
- Avoid swimming or surfing near schools of fish.
- Avoid swimming near, or interfere with, shark control equipment.

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It is important to recognise that there is always some inherent risk when using an environment inhabited by sharks. The risk of a shark related incidents varies according to the time of day, time of year, the geographic location and species of shark in the area. Other forms of accidental death and injury, particularly drowning, are far more common for beach users.

ACTIONS ON SIGHTINGS

In the event of a shark sighting the following precautions are recommended:

1. Request all swimmers to leave the water
2. Close the beach to all swimming and post appropriate signage (if specific signage is not available standard “no swimming” and “danger” signs may be utilised).
3. Advise beach visitors to remain clear of the water.
4. Do not attempt to kill, capture or injure the animal.
5. Record as much detail regarding the sighting as possible, including the size, number and behaviour of the shark(s), presence of other marine creatures (e.g. fish schools, dolphins, seals) and the response of the shark(s) to any attempt at dispersing them from the immediate vicinity.
6. The beach should be closed for a **minimum** of one hour from the time of the **LAST** sighting, with increased surveillance for an additional hour at the location of the sighting and surrounding areas until the potential risk is deemed to have subsided.
7. If absolutely necessary, engage power craft or aerial assets and attempt to disperse the shark(s) from the area by using engine noise and water surface disruption (care needs to be taken to ensure the lives of the operator and bystanders are not endangered).

Note: *the effectiveness and value of power craft disbursement is currently unknown and the first preference would be to close the beach and for the beach to remain closed until such time that the shark is deemed to have left the area.*

ACTIONS IN EVENT OF SHARK ATTACK

Shark attacks can result in massive tissue damage and severe blood loss. The following general treatment applies (specific information is contained within the SLSA training manual):

1. Bring the patient to the beach as quickly as possible.
2. Apply immediate first aid.
3. Co-ordinate hospital transport and pre-hospital emergency care.
4. Follow precautions outlined in ‘Actions on Sightings’.
5. Advise relevant Government Department as soon as possible and refer to any state/territory ‘Shark Response Plan’ where applicable (currently established in SA and WA).

THE SHARK CONTROL PROGRAM

Refer to state/territory policy where applicable.

FURTHER ADVICE AND INFORMATION

If you require further advice or assistance please contact Surf Life Saving Australia on (02) 9215 8000 or your state centre:

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SURF LIFE SAVING AUSTRALIA POLICY

Title:	Water Safety
Document Number:	1.01
Last Review Date:	May 2018
Next Review Date:	May 2019
Responsible Portfolio:	Lifesaving
Authority	This Policy is made under clause 39 of the SLSA Constitution. It is binding on all Members of SLSA and is to be interpreted in accordance with the SLSA Constitution.

Surf Life Saving Australia (SLSA) is to the safety, health and wellbeing of its Members, employees and the wider community who visit Australia's beaches. SLSA is the leader in coastal safety and provide safe and enjoyable aquatic experiences.

All Surf Life Saving affiliated organisations have a duty of care to their Members participating in aquatic activities. In all Member activities SLSA is committed to adopting reasonable and practical measures that help to prevent injury or illness. These measures include:

- a. compliance with State/Territory workplace health and safety legislation and regulations (where applicable);
- b. provision of effective risk assessment and management tools; including tools that are specifically tailored to the aquatic environment;
- c. provision of clear guidelines, procedures and codes of conduct for Members conducting or participating in aquatic activities;
- d. provision of an effective incident reporting system that allows SLSA to monitor, review and continuously improve our health, safety and risk management measures through an evidence based system;
- e. providing education and training for Members administering or participating in aquatic activities;
- f. supervision of participants during aquatic activities; and
- g. research/evidence based outcomes to ensure continuous improvement of equipment, operating procedures and training.

Please refer to the SLSA 'Water Safety Procedures' for further details, www.sls.com.au