SURF LIFE SAVING®
NEW ZEALAND
In it for life

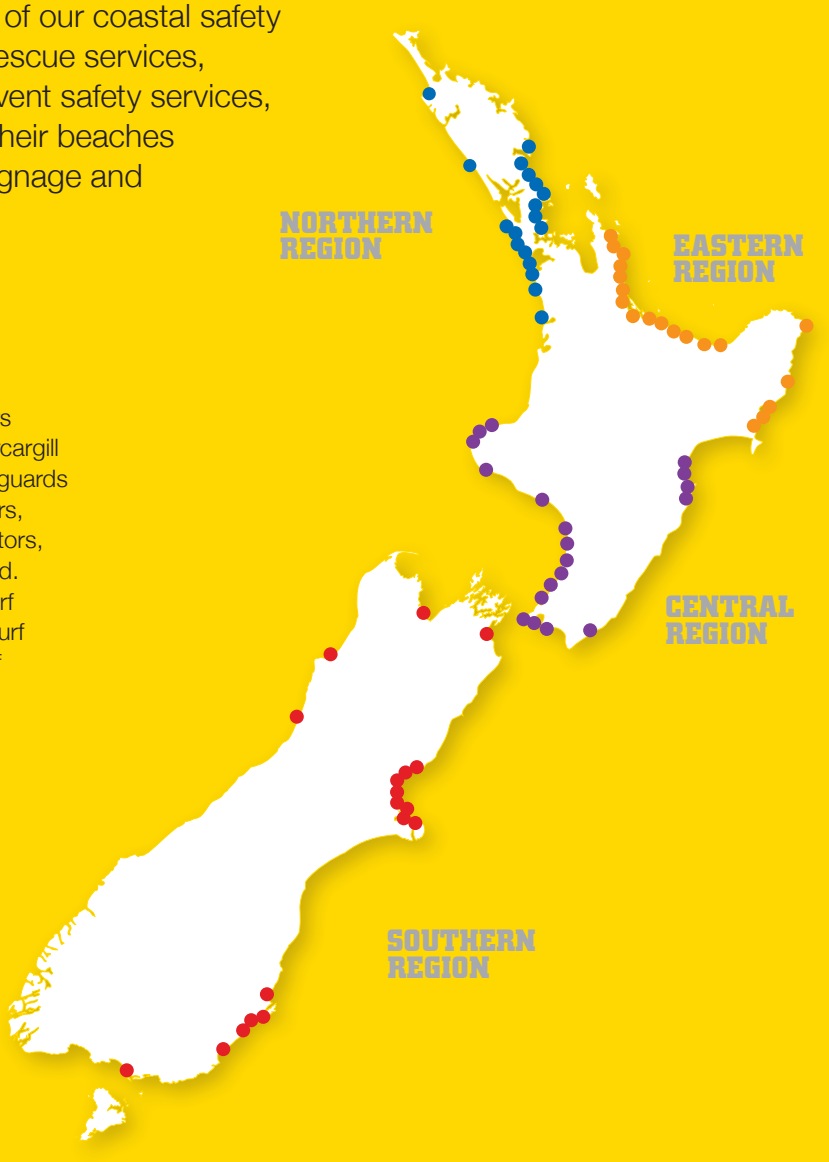
SURF LIFEGUARD TRAINING MANUAL 2022

Welcome

Congratulations on joining our lifesaving team, we're very pleased to have you, and look forward to working with you as you learn all the skills you'll need to become a surf lifeguard.

We've been patrolling beaches and making our coastline safer since 1910, so New Zealanders can enjoy spending time at the beach and in the ocean as part of our Kiwi lifestyle.

Today we rescue around 500 people a year from situations where their life is in immediate danger, and provide assistance to around 1500 people who might not make it home if it wasn't for the dedication and vigilance of our incredible surf lifeguards. We patrol at around 92 locations on New Zealand's most popular beaches, but that's just part of what we do. As part of our coastal safety strategy we also provide search and rescue services, community beach safety education, event safety services, and we work with councils to ensure their beaches have effective and consistent safety signage and public rescue equipment.



In It For Life

Surf Life Saving New Zealand has 19,500 members across 74 clubs throughout the country, from Invercargill to the Far North. Each year more than 800 surf lifeguards are qualified. There's a dedicated team of volunteers, from instructors and examiners, to club administrators, who are here to help you develop as a surf lifeguard. The opportunities available to you as one of our surf lifeguards are extraordinary. Once you have your Surf Lifeguard Award you can advance through the surf lifeguard programme in whichever direction you choose – first aid, IRBs, patrol captain, RWCs, or eventually becoming an instructor and examiner yourself. You can also take part in our life saving sport programme to put your skills to the test against others – be it beach sprints, swimming, surf skis, paddle boards, surf boats or IRBs.

We appreciate the commitment you are making by joining the Surf Life Saving New Zealand family. By giving up your personal time to volunteer with us to keep kiwis safe on our beaches, the difference you will make is massive.

SLSNZ acknowledges the contribution of SLSA for content within this manual. SLSNZ would also like to thank all those involved in the creation and review of this manual.

Contents

1. PREPARE 4
2. PREVENT 14
3. RESPECT 32
4. COMMUNICATE 40
5. RESPOND 56
6. PERFORM 74

1.
PREPARE

This section outlines the health, safety, welfare and risk management expectations for all surf lifeguards.

In this section:

Health, safety, welfare and risk management.

The impact on the health, safety and welfare of our members and the public must be considered in every decision and action that we take as surf lifeguards.

Risk management is the process we use to identify and assess hazards and risks in order to guide our decisions and actions at any given time for all surf lifeguard duties and tasks.

Risk management in action

Risk management and risk assessment is something that most people do in their daily lives without realising it. Is that plate hot? Is it safe to cross the road? Do I need to put sun block on? Similarly, trained surf lifeguards demonstrate effective risk assessment procedures every day while on patrol.

What is risk management?

Risk management is what we do to keep ourselves and other people safe from physical or mental harm.

Why do we do risk management?

SLSNZ does risk assessments to:

- Prevent harm to people.
- Inform our procedures.
- Record the evidence in support of our legal requirement to 'do risk assessments' under the Health and Safety at Work Act 2015.

How do we record our risk assessment?

There are several different SLSNZ risk assessment tools:

1. SAFER.
2. General risk assessment.
3. Operational risk assessment.

Who does the risk assessment?

There are different expectations for risk assessment for individuals based on lifeguarding skill and experience. ALL surf lifeguards are expected to understand level one – SAFER.

The SAFER model

SAFER helps guide and reinforce the fundamental concept of risk management, which all surf lifeguards should be familiar with and be able to implement for regular surf lifeguard tasks and duties.

SAFER is an easy to remember approach to identifying hazards and risks and encourages surf lifeguards to consider measures to fix the problem in order to prevent harm to people.

Risk management and assessment, are essential components of what we do as surf lifeguards. Understanding, remembering and utilising a SAFER approach to risk management is an important first step to providing for your safety as well as the safety of others.

When should I use SAFER?

The SAFER risk management process should be used in real time, while working, and/or where quick action is needed. SAFER can be carried out on the spot in developing or changing situations. SAFER is used for situations where dynamic risk assessments are required (i.e. on the spot activities or emergency responses).

Risk management in practice

The following eight steps outline the risk assessment process to be applied to surf lifesaving activities.

Step 1
Identify the activity

Surf lifeguards plan to set up and operate a patrolled flag area for the public.

Step 2
Identify the people

Surf lifeguards identify the people likely to use the flagged area and the surrounding beach, which includes the surf lifeguards themselves. This may include competent swimmers, boogie boarders, surfers, poor swimmers, children, families, and first time beach users.

Step 3
Identify the hazards

Surf lifeguards identify hazards which may include:

- Environmental hazards – rips, currents, and wave height/type.
- Potential human hazards – surfers near the proposed flag area, or first time beach users.
- Potential 'man made' hazards – jet skis on the water, vehicles on the beach, or the remains of an old disused wharf or jetty.

Step 4
Assess the risks

Surf lifeguards then identify and assess the risks to the people using the flagged area which may include; potential injury to swimmers due to location of surfers, potential drowning of swimmers entering the water fully clothed, or the location and strength of rips. Surf lifeguards then identify and assess the risks before considering what actions to apply to manage the risks.

Step 5
Apply preventative actions

Having assessed the risks, surf lifeguards make informed decisions about where to locate the flags, e.g. away from surfers and rips. They may also place signs to warn beach users of dangerous currents, and may talk to first time beach users about the safety of swimming between the flags.

These are all preventative actions or controls which help prevent harm to those using the beach.

Step 6
Monitor

Surf lifeguards monitor and review steps 1-5 and amend as necessary to prevent harm to people.

Step 7
Maintain

Surf lifeguards may record this information via the operational risk assessment app.

Step 8
Implement emergency response

Surf lifeguards implement emergency responses when preventative actions have failed, or where hazards have suddenly appeared. e.g. surf lifeguards rescue swimmers from a flash rip that suddenly appears

When effective risk management procedures are practiced the health, safety and wellbeing needs of surf lifeguards and others that use the beaches are normally well attended to.

More information on risk management and risk assessment can be found in your club/service standard operating procedure (CSOP) and on the SLSNZ website.

Self-preservation and personal risk

Self-preservation is the first priority

You are responsible for your own health and safety as a surf lifeguard.

While surf lifeguards are trained to perform rescues in the surf, there may be times when conditions are extremely dangerous, even for an experienced surf lifeguard.

In such conditions, the first consideration should be 'Self preservation'. Surf lifeguards must decide whether they can perform (or take part in) a rescue without exposing themselves to unnecessary harm or losing their own lives.

The responsibility and decision to enter the water lies with each individual. However, if an experienced surf lifeguard cautions you not to put yourself at risk by entering hazardous water, you should seek an alternative solution to performing the rescue.

Hygiene

Personal

Personal hygiene is important to ensure the safety of yourself and others. You may work closely with other surf lifeguards and the public so maintaining a professional image lets the public know you provide a professional and reliable surf lifesaving service.

- Maintain a clean and tidy appearance.
- Wash your hands regularly especially before and after activities such as treating a patient, eating or handling rubbish.
- Wear appropriate personal protective equipment (PPE) where appropriate.

Environmental

Environment hygiene is about keeping your clubhouse free from clutter or conditions that allow bacteria to thrive. Everyone must help. Cleaning and maintenance of facilities are important, especially in first aid and patrol operation rooms in your clubhouse. It is important to clean these areas after every patrol or, in the case of the club first aid room, after every use.

Sun protection

Surf lifeguards are at risk of harm from exposure to the sun. Not only can UV rays be absorbed from direct exposure to the sun, but also from reflection off the sand and water. Furthermore, harmful UV rays are still present on cloudy days.

It is therefore important that surf lifeguards:

- Seek shade whenever possible, particularly between 10am and 4pm.
- Wear a wide-brimmed hat.

- Wear a long-sleeved surf lifeguard patrol shirt.
- Use broad spectrum sunscreens with a sun protection factor (SPF) of 30 or higher, and:
  - Apply before going out into the sun.
  - Apply to exposed skin every 2 hours.
  - Reapply every time you exit the water.
  - Apply zinc or lip balm.
- Wear UV protective sunglasses that meet the AS/NZS 1067:2003 standard.

Dehydration

Surf lifeguards often patrol in hot conditions so maintaining hydration is important to prevent heat exhaustion, prevent fatigue and reduce dehydration. On patrol a surf lifeguard must drink water regularly to reduce dehydration and prevent heat exhaustion.

It is a good habit to carry your own refillable water bottle while on patrol.

Hypothermia

Hypothermia from exposure to cold conditions is a potential risk for surf lifeguards. Where possible, a surf lifeguard should keep sheltered, warm and dry. If you are exposed to cold, wet or windy conditions:

On land

- Wear warm clothing. A surf lifeguard jacket will keep you more insulated from the wind and potential heat loss.
- Where necessary, wear thermals underneath your surf lifeguard uniform.
- Wear a hat.
- Never work alone.

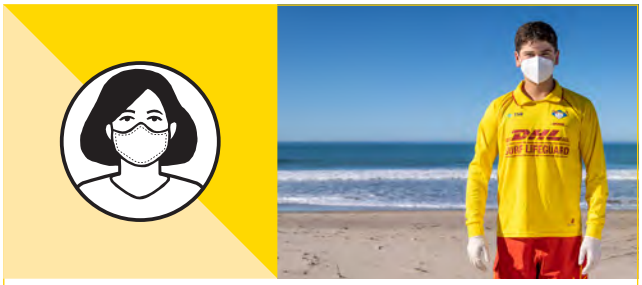
At sea

- Wear a wetsuit that covers at least the entire trunk area.
- If in colder conditions, wear wetsuit booties and gloves.
- Wear a jacket over your wetsuit to act as a windbreaker.
- Never work alone.

Transmissible diseases

To reduce the likelihood of contracting any transmissible infectious disease or virus, it is strongly recommended that surf lifeguards:

- Use resuscitation masks or face shields for all CPR.
- Keep your distance from anyone who has visible symptons of the common cold (coughing, runny nose, sneezing).
- Wear disposable gloves if there is any risk of contact with blood, saliva or bodily fluids.
- Conduct regular and thorough decontamination of clubs first aid room and training equipment e.g. CPR manikins.



In the COVID era, direct mouth-to-mouth ventilations are an individual's choice, but they need to have carefully considered all risks and the benefit to the patient.

Mouth-to-face-shield and mouth to-mask are breathing options that are somewhat safer, but still expose patient and surf lifeguard to the risk of infection. These techniques should not be used if there is a safer alternative such as a bag-valve-mask device available.

The surf lifeguard must always assess risk for themselves. They should determine their own level of personal health risk, understand the risk of infection currently in their community, be able to estimate the level of risk the patient may pose, and balance that against the possible benefit to the patient. One rule will not fit all scenarios. Please take all reasonable steps to keep yourself safe.

Alcohol and drugs

Alcohol and drugs impair judgment, coordination and may encourage people to take unnecessary risks. A swimmer who has been drinking alcohol or taking drugs tires easily and the body temperature drops quickly. Cramp is also more likely to occur.

Alcohol and drug consumption while wearing a surf lifeguard uniform is strictly forbidden. As part of your duty of care, a surf lifeguard should minimize their alcohol intake the night before patrol, as alcohol remains in the blood for 12 to 20 hours after their last drink.

You should also ensure that you are not under the influence of any drugs that may affect your performance while on duty.

Lifting and carrying

Surf lifeguard duties involve the lifting and carrying of equipment and people who have been rescued. A common injury is to the lower back, caused by incorrect lifting or handling of heavy, awkward or large objects. In surf lifesaving, objects such as patrol flag stands, a fully set-up IRB and IRB engines are particularly heavy and/or awkward. They require careful handling. Not only could you injure yourself, but you could also damage the equipment and hurt others around you. Applying the risk management steps as previously described which will help provide for the health, safety and wellbeing of all those involved.

How to lift

Firstly, it is important that the environment or area that you are required to lift in is safe. This will depend upon things like:

- Where and how equipment is laid out.
- The storage method of the equipment.
- The size and weight of equipment.
- How far you have to carry the equipment.
- The terrain you have to negotiate.

Below is a set of steps that describe how to lift correctly. These steps outline how to lift heavy items on your own, or when lifting with two or more people.

- Face in the direction of where you intend to lift.
- Bend the knees and crouch down, with a straight back.
- Balance with a wide base of support, and take hold of the object securely.
- Keep the load close to the body wherever possible. One member coordinates the lift and calls ‘Ready, one, two, three, lift’.
- Brace your stomach muscles and, while keeping your back in a neutral position, lift the object using your legs.

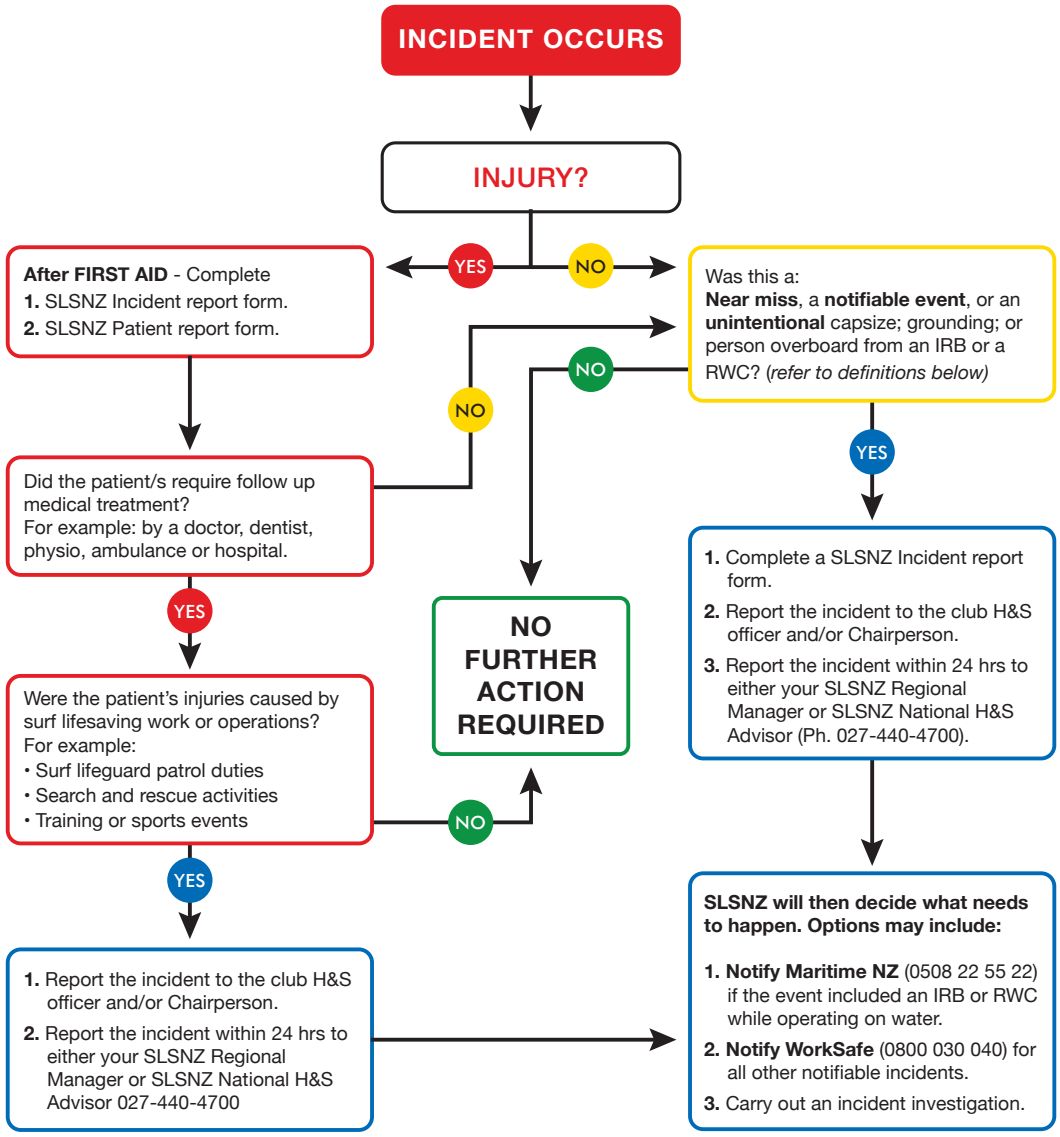
Do not bend forward with your legs straight to lift. This places excessive load on the lower back. The use of trailers, and ATV’s are important tools to use in the transportation of heavy objects and equipment.

Member incident & injury

Surf lifeguards undertake a wide range of duties. Effective risk management procedures and practices are encouraged and are likely to significantly reduce the incidence of harm, although injuries and incidents may still occur.

Reporting incidents and injuries of members is an important and necessary step in understanding and learning how to prevent these same incidents and injuries from re-occurring. The recording of injuries and incidents is a requirement of every surf lifeguards role and responsibilities.

SLSNZ INCIDENT & INJURY NOTIFICATION FLOW CHART



DEFINITIONS

Near miss - an unplanned or uncontrolled event that does not result in harm, but in slightly different circumstances may have resulted in harm.

Notifiable events includes:

- **Notifiable death** – when a person has been killed as a result of work.
- **Notifiable incident** – Is an unplanned or uncontrolled incident in the workplace that exposes a worker, or any other person to a serious health or safety risk.
- **Notifiable injury** - a significant injury resulting in the person needing to stay in hospital overnight.

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Member protection

SLSNZ and its clubs are committed to the health, safety and the well-being of all SLSNZ members. We are dedicated to providing a safe environment for participating in surf lifesaving activities.

SLSNZ documents relating to member protection that clubs and members should be aware of, include:

- SLSNZ regulations in particular the member protection regulation, code of conduct and health and safety regulation.
- SLSNZ National standard operating procedures (NSOP) and Club/service standard operating procedure (CSOP).
- SLSNZ competition safety manual.

For more information visit the **member protection toolbox** on the SLSNZ website under Club management.

Club and member responsibility

There are many situations where clubs and members are responsible for the health and safety of others.

Clubs have a responsibility to:

- Prevent harm to members and visitors to the club.
- Provide safe access to the club.
- Provide information, training and supervision.
- Inspect, maintain and control use of gear/equipment.

As a surf lifeguard, you are responsible for:

- Operating with your patrol captain and other club members.
- Operate equipment, in accordance with SLSNZ, club and manufacturer's requirements in order to prevent harm to yourself or others.
- Provide for the health, safety and wellbeing of yourself and other members.
- Provide first aid when required.
- Behave appropriately for the role and duties you have been assigned.
- Effectively manage patrol members that you are responsible for.

Wellbeing

General fitness

It is important that a surf lifeguard maintains a high level of fitness. Unfit surf lifeguards may be a risk to their patrol. It is strongly recommended that surf lifeguards participate in some form of daily exercise during the patrol season.

Surf lifeguards must also undergo refresher training each year to remain proficient in their skills and validate each surf lifeguards competence to ensure they can carry out lifesaving activities in a manner that is safe for them, other members and the public.

It is a reasonable expectation of the public that all patrol members are up to date with the latest requirements, knowledge, best practice and that they are fit to carry out their duties.

Support

All members and surf lifeguards have access to trained surf lifesaving peer supporters and free external professional counselling. Both of these services can be easily accessed and are considered a normal and important part of maintaining good wellbeing in the surf lifesaving environment. Keeping physically fit, getting good quality sleep and eating well all contribute to good wellbeing and the ability of the surf lifeguard to cope with the demands of training and patrolling.

Social support

The social support you have at a surf club plays an important role in your wellbeing as a surf lifeguard. During challenging times, keep connected to your surf club community and other important people in your life.

Peer support

Peer supporters are specially trained SLSNZ members who can provide wellbeing support for a range of issues including mental health concerns, bullying, stress and traumatic lifesaving incidents. Peer supporters play an important role in post-incident support, and may be called on to attend post-incident debriefs and assist with member follow-ups.

Counselling

All members and surf lifeguards have access to free counselling which is provided by an external organisation.

The counselling is confidential and can be used for personal issues such as stress, anxiety and grief as well as for support after stressful or traumatic incidents. **Counselling can be accessed through the SLSNZ website under Wellbeing.** Surf lifeguards are encouraged to proactively use counselling to support their wellbeing.

Critical incident support

A critical incident is an incident that is traumatic in nature or causes significant stress for those involved. Examples of critical incidents include CPR, death and traumatic injuries.

It is important to remember that situations affect people differently; sometimes situations such as a person's first rescue can be particularly stressful.

After a critical incident such as CPR or where a person has died, the following should occur to ensure the group of people involved receive immediate support.

Activating immediate critical incident support

Call SurfCom on 0800 SAVE LIFE to activate your local peer support network (state your beach, nature of incident and request peer support be activated).

↓

A peer supporter will receive a message and will usually be able to respond to provide a wellbeing debrief at the club that day.

↓

A peer supporter will provide a wellbeing debrief and provide information on support that is available and arrange formal follow-up for the days and weeks ahead.

Common stress reactions after a critical incident

It is important to remember that it is normal to have stress reactions after a stressful event. The event is abnormal, not your reactions to the event. After exposure to a critical incident, a person may develop stress symptoms within 24 hours. Most of these will usually disappear over the next few weeks. If symptoms worsen, interrupt your daily life or if they do not begin to dissipate after two weeks, additional support from a counsellor is recommended.

Common reactions include:

- Tension: physical and emotional tension.
- Sleep disturbances: insomnia, bad dreams, nightmares, or waking up too early.
- Nausea: queasiness, vomiting or other gastrointestinal problems.
- Recurring memories: thinking about the incident or some associated recurring memory.
- Negative feelings: Sadness, helplessness, fear, anxiety.
- Self-blame: a feeling of self-blame, fixed on some aspect of the event.
- Interpersonal problems: increased irritability, blaming others for your problems, wanting distance instead of closeness.

Stress management principles that can help moderate stress reactions:

- Spend time with those you are close to.
- Keep rested; remain on a schedule for sleep and other relaxing activities.
- Avoid changes in your daily routine.
- Get in touch with a peer supporter or counsellor to talk to about the incident.
- Do not make any significant life altering decisions for at least 30 days.
- Try to find time, perhaps just an hour to do something that you enjoy.
- Moderate your intake of caffeine.
- Avoid alcohol or other depressants.

2.
PREVENT

This section provides information that will assist surf lifeguards to be pro-active in fulfilling their key roles.

In this section:

Roles and responsibilities

The roles of surf lifeguards while on patrol and their responsibilities as members of SLSNZ.

Patrolling the beach is the most important role you will undertake as a surf lifeguard. It is where all your training and experience will be called upon to ensure beach-goers are able to return home safely after a visit to the beach.

Proactive lifeguarding

Proactive lifeguarding is about continually assessing hazards and risks, and applying preventative actions in order to prevent incidents or rescues from happening.

This helps reduce the risk of harm to the public and our fellow surf lifeguards when we're working on the beach.

There are many types of preventative actions a surf lifeguard can take to prevent a situation from developing into or contributing in to a real emergency, for example:

- Shifting the flagged area during the day due to a change in conditions.
- Preventing swimmers from entering a rip or hole.
- Removing or isolating broken glass or other hazards from the beach.
- Checking on swimmers who may appear to be in difficulty.
- Clearing the beach of swimmers due to a suspected shark sighting.
- Shifting board and ski riders out of the flagged area.

Any of these factors could pose a risk to water users. At the start of patrol, make sure there are enough surf lifeguards at the water's edge, in an elevated position (e.g. in the patrol tower), and that the appropriate equipment (patrol flags, rescue board) are positioned correctly.

Think about some possible scenarios that could eventuate and how you would manage them, i.e. a change in conditions

brought on by a flash rip current or an arrival of a group of swimmers in the water.

Keep an eye on the conditions, and if you notice them changing, think about how you can best keep people safe. A well-timed preventative action, such as moving the flags to a safer part of the beach, can mean the difference between a group of relaxed swimmers enjoying their time between the flags and a stressful rescue situation.

Individually, surf lifeguards can also make a big difference by engaging proactively with members of the public. This can be as simple as warning a group of people who are walking towards a rip current and advising them to swim between the flags.

Take the opportunity to share your knowledge about beach hazards, and help them learn how to keep themselves and their family safe.

Talk to and learn from the more experienced surf lifeguards on your patrol and your patrol captain.

General principles and skills of patrolling

Uniform

On patrol a surf lifeguard must wear a uniform to make the public aware that a patrol is operating and ensures that members of the public are able to readily identify the surf lifeguards. This is particularly important in emergency or rescue situations.

The brand and uniform represent a long history of SLSNZ and needs to be treated with the upmost respect.

Only qualified surf lifeguards can wear the surf lifeguard uniform while on patrol.

Where you CAN wear your surf lifeguard uniform:

- While on patrol.
- During event safety.
- Surf lifeguard related training, such as rock training, refresher training and search and rescue.
- Any educational activities promoting SLSNZ.

Where you CAN'T wear your surf lifeguard uniform:

- At a party with your friends.
- At the supermarket or any locations you choose to stop of at after patrol.
- Dress up party.
- You can't lend it out to your friends or sell your uniform to anyone.

Surf lifeguard uniforms must not be worn for anything other than lifeguard duties.

Uniforms can be obtained through your club.

The above image demonstrates inappropriate use of the surf lifeguard uniform, and doesn't portray a positive public image.

Public image

Every time you put on your patrol uniform, you become a role model for surf lifesaving.

Public image is crucial for all surf lifeguards to maintain during patrol and lifesaving related activities.

All surf lifeguards should be polite and considerate when they deal with the public. Whether they deal with the public face-to-face, over the phone, in written documents or on social media, they should be given professional service and respect.

Misuse of any lifesaving equipment or not portraying a professional behavior should be avoided at **all times**, as it presents a bad image to the public and our brand.

Examples of poor public image

Reading the newspaper, leaning up against patrol flag while on duty.

Being on your cell phone while on the beach and taking selfie photos.

Crowd control

It is essential to control the public on crowded beaches. This is especially important when a rescue is being performed or there is an incident on the beach. With the access to phones, cameras and video, surf lifeguards need to be cautious around patient placement, privacy and language. Accidental snooping by onlookers may put the life of rescuers and/or patients in danger and prevent the rescues smooth conduct.

The patrol captain should designate a suitable amount of surf lifeguards to organise the public and keep them away from the centre of the activity.

Patrol methods

Surf lifesaving's first duty, as a frontline community surf rescue service, is the safety of the public who visit and swim at popular beaches along the New Zealand coastline.

Surf lifeguards ensure beaches are safe by patrolling them on weekends and holidays during the summer season, incorporating the basic principles of:

The surf lifesaving club or service responsible for each beach determines the patrolling method used. There are two categories to surf lifesaving operating procedures.

1. National standard operating procedures (NSOP)

NSOPs set out national minimum standards to be achieved by all clubs and services. These standards should be met in each relevant circumstance.

2. Club/service standard operating procedures (CSOP)

CSOPs provide important club specific information and procedures that are unique to the club or patrol location.

CSOPs allow clubs to build on the NSOPs that require important local information. It is likely that there are special and specific factors about clubs that are unable to be taken into account for in the NSOPs.

CSOPs also contain club contacts, patrol operations, local procedures, local environmental factors, search and rescue squad information, risk assessment and any regional specifications.

Who should read the NSOP and CSOP?

Every surf lifeguard, member or volunteer should read and understand both the NSOP and CSOP relevant to the duty or task they are doing.

Where to find NSOPs and CSOPs?

All NSOPs can be found on the SLSNZ website under the 'Club Management' section.

Your club CSOP can be found in your club's patrol operations room or patrol tower.

SLSNZ lifesaving policies together with NSOPs, CSOPs and SLSNZ training manuals are the resources which give clubs and services the structure and guidance to conduct training and patrols effectively.

Reports & information

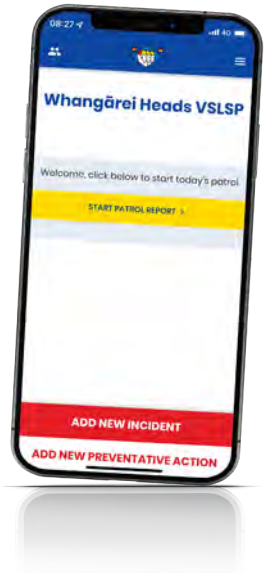
During every patrol, information must be collected and completed as a formal record of the day's events.

This information is then fed either manually or via the Surf Patrol App into the SLSNZ database, where important statistical information can be found and reviewed.

- Statistics enable clubs and SLSNZ to complete analyses of beach usage, rescues and preventative actions and update their patrol methods and CSOPs, if necessary.
- Statistics enable SLSNZ and clubs to make decisions, based on evidence that has been gathered for patrols.
- Statistics provide evidence for continued funding from support organisations, sponsorship and the public.
- Statistics also provide data that can be supplied to the news media.
- Patrol information help's SLSNZ to appropriately recognise members' actions.

Surf Patrol App

Patrol captain's and vice patrol captains can enter their patrol data directly into the SLSNZ database via the Surf Patrol App. This removes the need for your club to manually keep track of paper, ensures all members on patrol are refreshed and helps patrol captains understand the capability of their patrol.



The types of forms used are:

- Patrol captain's report form.
- Incident report form.
- Patient report form.

Definitions

To assist surf lifeguards in completing patrol and incident report forms, the following definitions apply:

Voluntary patrol: Volunteer surf lifeguards that perform a patrol.

Paid lifeguard: Surf lifeguards that are employed to provide patrols.

Callout: Any response to an emergency occurring outside normal patrol hours.

Event safety: Any event where a surf lifeguard provides event safety.

Other: Other activities that are not included in the areas above, e.g. educational activity.

No. of surf lifeguards: The total number of surf lifeguards who were on patrol that day.

Total surf lifeguard hours worked: The combined hours of all surf lifeguards that worked that day.

Rescue: Where a person requires immediate help to return to shore (or place of safety) and who without intervention would have suffered distress, injury or drowning. They are unable to remove themselves from the situation by themselves.

Assist: Where a person requires assistance to return to shore but would most likely be able to get themselves out of danger – no immediate threat to life.

Minor first aid: Any incident where a patient is administered some form of minor medical treatment – minor cut, bluebottle sting, minor strain or sprains.

Major first aid: Any incident where a patient needs a higher level of medical intervention and results in the requirement for further medical treatment or is handed to another agency (ambulance or doctor).

Search: Any organised search for a missing person or group either at sea or on land. This includes body recovery.

Preventative action: Where a surf lifeguard identifies a potentially dangerous situation and takes precautionary action to prevent the situation from developing into or contributing into a real emergency, for example:

- Shifting the flagged area during the day due to a change in conditions.
- Preventing swimmers from entering a rip or hole.
- Removing or isolating broken glass or other hazards from the beach.
- Checking on swimmers who may appear to be in difficulty.
- Clearing the beach of swimmers due to a suspected shark sighting.
- Shifting board and ski riders out of the flagged area.

NOTE: When recording preventative actions the rule is to record the "preventative action" (i.e. moving 15 people into the flagged area) as 1 action. Record the "public involved" (15 people) as the estimate number of people involved in that action. On busy days the patrol might want to keep a running tally of these on a separate page, or input them directly into the Surf Patrol App as they occur.

Patrol minimum standards (audits)

Patrol audits occur to maintain consistent minimum patrolling standards throughout New Zealand. These audits are carried out by regional nominated auditors against set criteria. These criteria are aligned to the club's CSOP.

Patrol captain's report form

The patrol captain's report form is used to capture key patrol information. This includes surf lifeguards involved, members of the public, weather conditions, patrol equipment, incidents and any preventative actions.

SLSNZ Patrol Captains Report Form

SURF LIFE SAVING

Patrol & Team Details		Type of Service (Tick one box)	
Club / service		Voluntary	
Patrol team (if allocated)		Paid lifeguard	
Patrol captain		Emergency Callout Squad	
Date of patrol	/ / S M T W T F S	Event safety	
Patrol location		Other	

Environmental Hazard Risk Assessment Record	Start of Patrol	Environmental condition change	Peak Crowd	Environmental condition change	At Patrol Closedown
	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

Patrol Information				Seecodes	Patrol Conditions	Start of patrol	Comments
Patrol start time					Weather		
Patrol finish time					Wave height		
High tide time		Low tide time			Surf conditions		
Peak headcount					Wind strength		
Total hours worked					Wind direction		

Patrol Members (contact)

	First name	Last name	SLSNZ number	Role	Start	Finish	Hours
					Use 15 minute time units		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

Head counts	On beach	In water	Total
06.00			
07.00			
08.00			
09.00			
10.00			
11.00			
12.00			
13.00			
14.00			
15.00			
16.00			
17.00			
18.00			
19.00			
20.00			
21.00			
22.00			
Peak			

Notes:

Resources		Actions	Number	# forms complete
Number of **patrol members**		Number of people **rescued**		
Number of **patrolled areas**		Number of people **assisted** to safety		
Number of **IRBs / RWC**		Number of people needing **major first aid**		
Number of **radios**		Number of **minor first aid** incidents		
Number of **ATVs**		Number of people **searched** for		
Other equipment: (list below)		Number of **preventative actions**		
		Est. No. of **public involved** in preventative actions		

Signed: (patrol captain)

Incident report form

The incident report form is used to record information on rescues, searches, first aid and any other incident a surf lifeguard may respond to. This also includes any incidents during lifesaving sport events. All injuries to any club member or member of the public must be reported.

SLSNZ Incident Report Form CONFIDENTIAL — SURF LIFE SAVING — 0001

Incident & Team Details	
Club	
Incident date	/ /
Incident location	
GPS or grid ref	
Incident start time	
Incident finish time	
Incident level (0-4)	
Number of patients involved	
SLSNZ workplace incident	Yes No
Did this happen during patrol?	Yes No

Summary of incident *(please enter what happened, when and the response effort below)*

Police Tasking Information	
Tasking Police Event #(PO)	
Tasking Cost Centre #(CC)	
Tasking officer #	
Tasking start time	
Tasking finish time	
Incident Analysis	
Probability of reoccurrence	
Consequence / impact	
Accident investigated	Yes No
Action required	Yes No
Patrol team name	
EAP required	Yes No
EAP actioned	Yes No

Incident Type			
Rescue		Complete patient report form	
Patient assist			
First aid (major)		Complete patient report form	
Search		Complete patient report form	
Near miss			

Activities Involved			
Swimming		Fishing	
Surfing / bodyboard		Attempt rescue	
Sail or boat		Other	
Walking / running			

Incident Conditions *(at start of incident)*	
See codes	Weather
	Wave height
	Surf conditions
	Wind strength
	Wind direction

Other: *(rips, holes, equipment...)*

Resources Used			
IRB		Radios	
Rescue tube		RWC	
Rescue board		First aid equipment	
Rescue vehicle		No equipment	
Other:		Methoxyflurane	

Lifeguards / Volunteers Involved		
First name	Last name	Surf ID number

Mass Rescue & Patient Assist Details		
	Name	
	Address	
	Age*	
	Gender*	
Patient 1	Ethnic origin*	
	Name	
	Address	
	Age*	
	Gender*	
Patient 2	Ethnic origin*	
	Name	
	Address	
	Age*	
	Gender*	
Patient 3	Ethnic origin*	
	Name	
	Address	
	Age*	
	Gender*	
Patient 4	Ethnic origin*	
	Name	
	Address	
	Age*	
	Gender*	
Patient 5	Ethnic origin*	

*Must complete for all patients. In all cases the outcome will be 'patient left in stable condition'. If their condition is not stable a patient form needs to be completed.
Name & address are optional but must add suburb.

Form completed by	First name	Last name
Signed		

Patient report form

The patient report form is used to record individual patient details, treatment, vital signs and any search information. These forms must be filled out for all major rescues, first aid and searches.

SLSNZ Patient Report Form CONFIDENTIAL — SURF LIFE SAVING

Additional Patient Information for Major Rescues, First Aids and Searches. Please store this form in a secure location after completing.

Patient Details - *required fields for staff/members

Incident level (0 - 4)	Arr.	4	3	2	1	0	Incident date		
	Dep.	4	3	2	1	0	Incident no. from Incident report form		
							*SLSNZ member	Yes / No	Number:
*First name							*Gender	Male / Female	
*Last name							Ethnic origin (primary)		
*Date of birth	DD / MM / YYYY						Ethnic origin other		
Address & suburb							*Mobile #		
City							Was a fatality prevented?	Yes / No	

Incident Reason

Exhaustion	Poor swimming	Drugs / alcohol	Excessive clothing	Inappropriate equipment	Jellyfish / insect sting	Cramp	Cut / abrasions	Bruising	Burns / sunburn	Breathing difficulty	Feeling unwell	Other	Other notes:

Patient Outcomes

Left in stable condition	
Referred to Doctor	
Assisted from the beach	
Ambulance to hospital	
Helicopter to hospital	
Deceased	
Unknown / Not found	

Equipment Used

Oxygen		FA Supplies	
Defibrillator		Methoxyflurane	
Stretcher			

First Aid Treatment

History / chief complaint / onset

Treatment

Medications / allergies

Patient Vitals

Time	Interventions / drugs	Dose	Response AVPU	Airway	Breathing	Pulse / circulation	Temp	Blood pressure	O2 Sat	Bld Gluc
								/		
								/		
								/		
								/		
								/		
								/		
								/		

Search Information

Missing person details & description

Name	
Phone numbers	
Medical & mental condition	
Description of missing person	
Age	
Ethnicity	
Gender	
Height & build	
Hair colour	
Eye colour	
Clothing / belongings	

Informant information

Informant name	
Informant phone numbers	
Relationship to missing	
Address where you will stay tonight	
Missing person last location	
Circumstances of disappearance	
Point last seen (PLS)	
Last known point (LKP)	
Last seen by whom	
Activity (what doing)	

Search Activities by SLS Volunteers

Time	Action

NOTE: If there is more than one patient involved in a major incident use a second form.

IRB operations log

The IRB operations log must be completed for every IRB that is used on patrol. It is important for the IRB operator to check the previous log for any damage to the hull and/or engine before preparing the IRB for patrol.

bp

SLSNZ IRB Daily Operations Log

SURF LIFE SAVING

Previous Operation Log on equipment status checked ☐

Type of service (Tick Box)		**Equipment Identification**		**Signed on completion**	
Voluntary patrol					
Paid lifeguard		**IRB #**	**Engine ID #**		
Callout				**Date:** / /	**Day:** (Circle one) S M T W T F S
Training					
Other					

Patrol Members	**Driver**	**Crew**	**Hours**
1.			
2.			
3.			
4.			
5.			
6.			

Check list OUT	**1**	**2**	**3**	**Check list IN**	**1**	**2**	**3**
Fuel bladder (full / no leaks)				**IRB washed**			
IRB inflated to correct pressure				**IRB semi deflated**			
Engine (Checked, secured and run)				**Trailer washed**			
Propguard/Prop secure				**PFD's washed and stored**			
Rescue Tube/Paddles/Knife				**Engine run and checked**			
Lifejackets/PFD's				**Fuel bladder filled and stored**			

Equipment status: OK Requires attention	**IRB #**	**Engine ID#**	**Spare fuel (Jerry can or bladder) YES / NO** If **NO** contact the Power Craft Officer

Details of problem/s (Highlight recommended action)

Power Craft Officer/Club Captain advised of problem(s)

Equipment requiring attention identified as 'Not for use'

RWC operations log

The RWC operations log must be completed for any RWC that is used on patrol. It is important for the RWC operator to check the previous log for any damage to the RWC before preparing for patrol.

bp

SLSNZ RWC Operations Log

Previous Operation Log on equipment status checked ☐

SURF LIFE SAVING

Type of Service (Tick Box)		Location of Service:		Signed on completion:
Patrol				
Callout		Equipment Identification		
Event Guarding		RWC #	Rescue Sled #	Date: / /
Training		1	1	Day: (Circle one)
Other		2	2	S M T W T F S

Patrol Members	Operator	Crew	Hours
1			
2			
3			
4			
5			
6			

Pre Operational Checks			Post Operational Checks		
Radio Check (Performed Radio check and secured to PFD)	1	2	**Radio Storage** (Remove radio from PFD, Place radio on charge)	1	2
Inspect condition of Hull (Inspect hull, ride plate and water inlet grate for damages, inspect & secure bungs)	1	2	**Inspect and remove Bungs** (Remove bungs and tilt trailer for best drainage)	1	2
Check Fuel & Engine Bay (Refill fuel, check engine bay & components, close & secure compartments)	1	2	**Wash Down** (Spray the RWC, Rescue Sled and Trailer down with fresh water, lightly spray engine bay)	1	2
Steering System (Checked operation, Jet nozzle moving simultaneously)	1	2	**Hose out intake and Jet nozzle** (Hose out sand and any other debris)	1	2
Rescue Sled (Inspect condition of rescue sled & attachment points, inflate if required, Connect to the RWC)	1	2	**Flush Engine** (Flush out with fresh water Sequence Engine on, Water on, Water off, Engine off)	1	2
Engine Start/Stop check (Start engine run for 5 seconds then Stop, test kill cord)	1	2	**Inspect condition of Hull** (Inspect hull, ride plate and water inlet grate for damages)	1	2
Check Lanyard Condition (Check for spare in glove compartment)	1	2	**Check Fuel level** (Refill fuel)	1	2
Check all Operational Equipment (Rescue Tube,Helmet's,Fins,Goggles,Flares,PFD's)	1	2	**Store RWC and PFD** (In Shed with all compartments ventilated)	1	2

Equipment status:	RWC #	Sled ID #	SLS Region Staff or Power Craft Officer advised of problem(s)
Requires attention			
All OK			Reported to: ☐
			RWC Engine Hours # #

Equipment requiring attention identified as 'Not for use' YES / NO

PAM database information

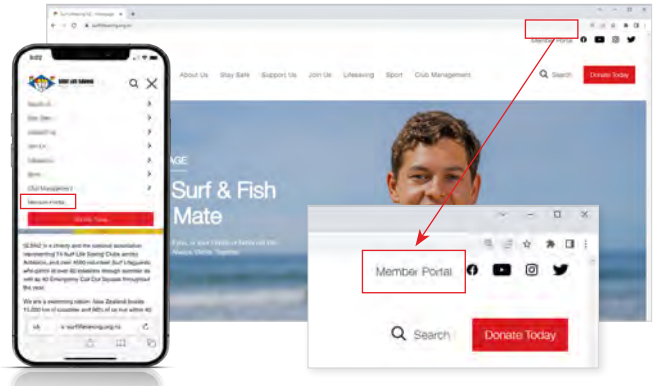
The Patrols and Membership database (PAM) is a central database for all surf lifesaving clubs in New Zealand. It is used to record details of members including contact details, awards, and club memberships. PAM also captures patrol and incident information. PAM holds this information securely, and the data gives us an understanding of trends across the whole organisation. The information is used for media releases and official reports for internal and external use.

Clubs can manage their member's information and input their patrol data, as well as export any club information they require.

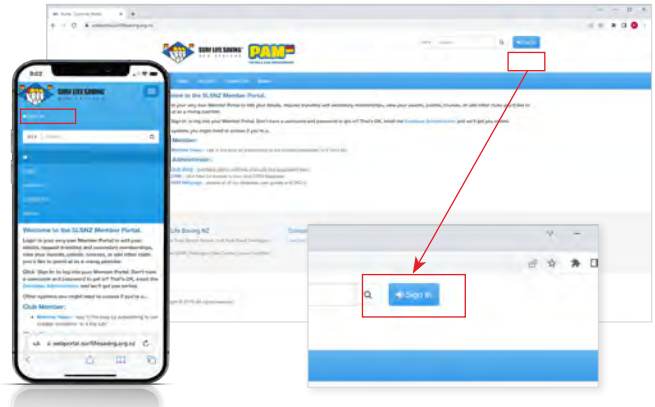
The member portal is a mobile friendly portal where every member of SLSNZ can log in and view their upcoming patrols, see their awards, and update their contact information via the **My Profile** section. It is important that this contact information is kept up to date so that it can be used as a means of getting in touch with members when required.

Members can access their own member portal via the SLSNZ website.

1. Click on the **"Member Portal"** button (top right corner)



2. Click on the "**Sign In**" button



3. Type in your **Username**

   (The username format is the letters 'SLS' and your 'SLSNZ membership number', separated by an underscore, i.e. SLS_69233 – DO NOT add your email here)

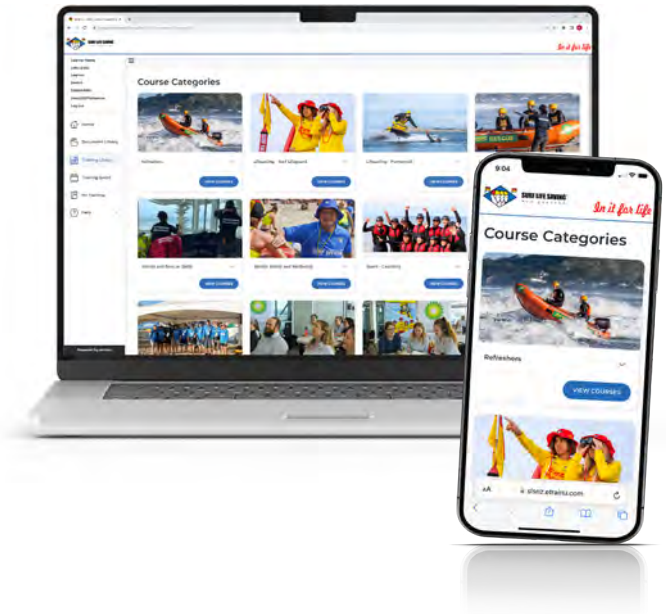
If you don't have a password please select the 'forgot your password' option which will email you a temporary password to reset. Or you can contact your club administrator who can reset your password.

Online learning

We are proud to provide our members with learning at their fingertips. Our online learning brings training into your home with flexibility, learning that is self-directed and convenient. Take control of your own learning and free up more time to spend learning your practical skills at the beach.

All members are now required to complete their Surf Lifeguard Award (SLA), Patrol Support (PS), IRB Drivers (IRBD) and Rescue Water Craft (RWC) theory refreshers online. Access to our online learning is via your member portal access.

If you have any questions or would like more information, please email **member.education@surflifesaving.org.nz.**



Rescue vehicles

The “Land Transport Act 1998” defines the ‘road’ as:

- A street.
- A motorway.
- A beach.
- A place to which the public have access, whether as of right or not.
- All bridges, culverts, ferries, and fords forming part of a road or street or motorway, or a place referred to above.

This means that any use of any vehicles for patrolling purposes must be in accordance with the law.

Responsibilities of clubs and surf lifeguards for All Terrain Vehicles (ATV):

- All ATV operators shall hold a current motorcycle or driver’s license (restricted or full).
- All ATV operators must wear a seat belt.
- All ATV operators must be a minimum of 16 years of age.
- All ATV operators adhere to SLSNZ’s policy ‘Use of patrol vehicles on beaches’.

The vehicle shall carry the following lifesaving equipment:

- First aid and resuscitation equipment.
- Rescue tube and surf fins.
- Hand-held radio protected by a waterproof pouch or base radio mounted to the vehicle.

Emergency services

As a surf lifeguard, you should be aware of the emergency services and other rescue agencies that operate in your area. An emergency services phone list should be displayed next to all telephones in your surf club, in your patrol tower and in your CSOP so that contact numbers are readily available.

Calling in back-up

If you need assistance, or even think that a rescue operation is starting to become too large or difficult to control, you should ask for help sooner rather than later.

It is much better to have help on the way and cancel it, than to need assistance and have nothing available.

SurfCom

SurfCom is a 24/7 service that operates 365 days a year. Between Labour Weekend and Anzac Weekend it is manned by SurfCom operators, and overnight and during the winter it is manned by Coastguard. SurfCom is based out of the Auckland Marine Rescue Centre.

The main roles of SurfCom are to:

- Assist with the coordination of major incidents when several lifesaving services are involved.
- Gather and record operational information.
- Liaise with other emergency services.
- Provide general information to all lifesaving services.

SurfCom can be contacted by using your local radio network or by telephone 0800 SAVE LIFE.

Your local search and rescue squad information can also be found in your CSOP.

If emergency services are required, dial 111.

You will be connected to an operator, who will ask you which service you require, ambulance, police or fire.

Your call will be connected to the service you requested. You will be asked:

- Where are you?
- Who are you?
- What is the emergency?

Make sure you know the street location of your surf club or the street or beach access where you would like the ambulance or other vehicle to go.

Remain calm and speak in a clear, precise voice that can be clearly understood.

Police

A surf lifeguard should always call 111 in cases of:

- Public disturbance.
- Any criminal behavior.
- Motor vehicle accidents.
- Whenever a person is reported as missing.
- Body discovery.

Ambulance

A surf lifeguard should always call 111 in cases of:

- A patient has lost consciousness, even for a brief period.
- A patient has received resuscitation.
- Suspected spinal injury.
- A patient is suspected of swallowing water.
- Any other serious injury.

Fire

A surf lifeguard should always call 111 in cases of:

- Bush fires.
- House fires.
- Cliff incidents.

Search and rescue

The Police have responsibility for search and rescue, and should be contacted in any search or rescue operation that goes beyond a straight forward rescue.

Coastguard

Most coastal regions in New Zealand have a volunteer Coastguard that is available to respond to offshore boating emergencies. The Coastguard may be of assistance in some rescue or search situations.

Rescue helicopter

If your patrol does not have an established protocol for calling a rescue helicopter, then dial 111, ask for ambulance and advise the operator that you need a rescue helicopter.

If your patient has a medical problem, the operator will determine the need for an ambulance or rescue helicopter.

Patrolling roles

There are various tasks that are essential for a successful patrol, which may vary from patrol to patrol. As a surf lifeguard, you must not only understand your role, but the role of others on duty with you.

Patrol captain

Your patrol captain has been appointed to this position because they have the required surf lifesaving skills and experience to effectively manage the lifesaving service at your club or beach. The patrol captain is responsible for leading and managing incidents, rescues, coordination of all patrol duties and the health, safety and well-being of all patrol members.

Vice patrol captain

Your vice patrol captain will be an experienced surf lifeguard whose role is to support the patrol captain and their duties throughout the patrol.

Flag duty

A surf lifeguard's role on flag duty is to keep a constant watch on the swimmers in the flagged area and to encourage swimmers to remain swimming between the flags. When on flag duty, always carry a rescue tube, surf fins and a radio.

IRB driver and crewperson

The IRB driver and crewperson must have the IRB ready for use close to the water's edge. Should they be needed for a rescue, they must respond quickly and efficiently. Radio contact needs to be kept at all times with the rest of the patrol.

Tower

A patrol member shall be stationed in an elevated position at all times during the patrol. When a beach user enters the water, one set of surf lifeguard eyes must remain on the patrolled area at all times. **Never leave the flagged area without observation.**

First aid

Although all patrolling members will have been trained in basic first aid and CPR, there is a need for some patrol members to be trained at a higher level. If there is a major first aid emergency during a patrol, those trained at this higher level of first aid must take over patient management.

Roaming patrol

The patrol captain may designate surf lifeguards to travel on foot, ATV, IRB or RWC along the coastline while monitoring the water/beach users. Surf lifeguards should educate beach and water users of hazards and respond to incidents as required. Roaming patrols must always keep in radio contact with the patrol.

Patrol support

Patrol support members are an extension to the minimum number of surf lifeguards on patrol. Patrol support must not take part in any water based activities on patrol.

Example of a typical patrolling day

Prior to patrol

Surf lifeguards should arrive at least 15 minutes before the patrol is due to start to:

- Ensure that all relevant log books and operational risk assessments are completed with any hazards identified.

Defining the flagged area

- When selecting the safest area of the beach for swimmers and the position of equipment, surf lifeguards should be in an elevated position to gain a true picture of the beach conditions.
- Surf lifeguards should also physically test the selected area with a swim before the patrol flags are placed.
- Movement of the patrol flags and equipment to as close to the water's edge as practical when the tide falls is an important function of patrol operation.
- Check all patrol equipment is in good working order, including first aid equipment.
- Define emergency procedures and roles of each surf lifeguard patrol member.

Setting up the beach & patrol

The patrol captain is in charge of all aspects of the patrol.

This includes:

- Defining the safest swimming area, using the red and yellow patrol flags.
- Allocation of duties to surf lifeguards.
- Deploying lifeguards to appropriate locations or hot spots.
- Coordination of any emergency situations.
- Ensuring all required report forms are completed.
- Appropriate positioning and layout of patrol gear and rescue equipment.

Key tasks to set up the patrol include:

- Set out patrol flags in the location designated and agreed by the patrol captain.
- Raise the red/yellow patrol flag on a flag pole, and bp flag where the IRB is operational.
- Place the daily conditions sign by the main access to the beach and/or near the club, and any other hazard signage.
- Set out rescue equipment.

If there is a significant shift in the flagged area during the day, the patrol captain should make a public announcement to notify beach-goers of the change.

It is also important to advise swimmers to swim between the flagged area and/or advise them of the dangers and hazards outside the flags.

Polite requests should be made to any board riders within the flagged area to move away, to prevent any injuries to those swimming between the flags.

During the day

- Actively chat with the public.
- Perform preventive actions.
- Perform rescues where required.
- Rotate patrol duties/watches/activities/training to relieve boredom and reduce time in the sun.

Preventative actions

A good surf lifeguard is able to identify a potentially dangerous situation early and take necessary action to prevent it developing into a real emergency.

These actions are referred to as **PREVENTATIVE ACTIONS.**

A preventative action is where a surf lifeguard identifies a potentially dangerous situation and takes precautionary action to prevent the situation from developing into or contributing in to a real emergency, for example:

- Shifting the flagged area during the day due to a change in conditions.
- Preventing swimmers from entering a rip or hole.
- Removing or isolating broken glass of other hazards from the beach.
- Checking on swimmers who may appear to be in difficulty.
- Shifting board and ski riders out of the flagged area.

End of patrol

15 minutes prior to end of patrol **notify the public on beach that the patrol is due to finish.**

Provide them with safety messaging:

- “Surf lifeguards are about to finish patrolling”.
- “We encourage you to leave the water when the surf lifeguards leave”.
- “If you do choose to remain in the water, please remain in the same location that the flags are/have been currently located”.
- “Please be advised that to remain in the water after the patrol finishes, you do so at your own risk”.
- Drop patrol flags and lower all flags from flag poles and store.
- Remove all signage and rescue equipment from the beach.
- Ensure all operational risk assessments, patrol captain, incident and patient report forms are completed and entered into PAM or the Surf Patrol App.
- Wash down all equipment and notify the patrol captain of any broken, lost or damaged patrol equipment.
- All patrol members change out of their patrol uniform before leaving their patrol location or club.

Search and rescue operations

Occasionally, surf lifeguards will be asked to take part in search and rescue operations during patrol.

If you are involved in search and rescue activities, you must always only respond within the limits of your current training and qualifications. In some situations, surf lifeguards may be required to start an initial search during patrol before the local search and rescue squad members arrive.

Missing persons on the beach or at sea

Large crowds and an abundance of activity make reports of missing persons common in the beach environment. In the majority of cases, a person reporting someone missing fears that the person has drowned. Usually, the missing person is found on the beach later.

Surf lifeguard tasks

If you are the surf lifeguard who has been notified of a missing person your first roles and responsibilities are:

- Obtain as much information as possible from the informant about the missing person.
- Keep the informant with you at all times.
- Alert the patrol captain.

The following questions should be asked:

- What was the last known point of the missing person? Consider dropping a buoy or another identifiable object that will remain in place at the last known point if in the water.
- What was the person doing prior to going missing?
- If the person was in the water, did you see them submerge?
- General details about the person, age, height, gender, complexion, what they were wearing.
- Be prepared with your fins to get into the water if directed by your patrol captain.

An initial search should be conducted in the last known area. If the person is still not found, the patrol captain should contact police immediately who will then make contact with SurfCom and/or the local surf lifesaving search and rescue squad.

3.
RESPECT

As members gain experience and knowledge of the environment in which they live, work and play, they will develop respect for it.

In this section:

Surf environment

The unique physical environment surf lifeguards operate in.

The coastal environment is highly dynamic, with constant changes to beaches, sandbars, waves, wind and currents. While on patrol, you should regularly monitor surf conditions that increase the risk to the public. The ability to forecast, translate and prepare for changing environmental conditions is a valuable lifeguarding skill.

Waves & swell

What is a wave?

A wave is a body of water moving through the surface of the ocean.

Wave formation and breaking

As wind blows across the ocean, energy is transferred to the water's surface to form waves. Waves of similar size and speed then travel together and form organised swell. Swell can travel large distances from the starting point until they reach the coastline.

As a wave approaches land, it interacts with the shape of the coastline and the underwater geography. This process is highly variable, depending on the coastline. As the wave approaches shallow water, it becomes larger and slows down, shortening the wave period.

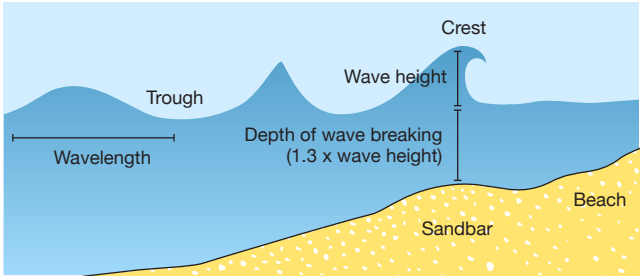
Reef break

Wave energy can become focused on one shallow area and break with immense power such as on a reef, or it can spread out over a wider area such as a bay or long beach.

Size of waves

The size of waves is determined by three factors:

- **D** The **distance** the wind blows. → **Fetch**
- **H** How **hard** the wind blows. → **Velocity**
- **L** The **length** of time it blows. → **Duration**



As a wave approaches the beach and the water gets shallower, the wave starts to slow down due to contact with the sea floor. The wave increases in height, and the distance between waves (the wavelength) decreases. When the water depth is approximately 1.3 times the wave height, the wave becomes unstable and the crest topples over. This is called a breaking wave.

Long beach

Wave grouping (sets)

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

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

Wave types

The shape of a breaking wave is influenced by the slope of the beach and sea floor.

There are four main types of breaking waves:

Spilling Wave

A spilling wave occurs where the sea floor gradually gets shallower, and the top of the wave tumbles down the face of the wave. Spilling waves are typically not as powerful as dumper or plunging waves. These waves are safer for swimmers and learner board riders.

Dumper or Plunging waves

Dumper or plunging waves break where there is a sudden change in water depth. This can be on a steeper beach, sandbar, or reef. The steep slope causes the wave height to increase quickly, then the top of the wave plunges or dumps forwards and downwards. These waves can be powerful and hazardous to water users, who may be injured if thrown onto the sea floor.

Shorebreak

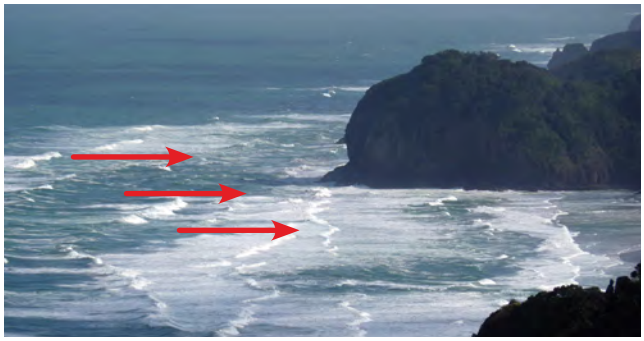
This is a dumper or plunging wave that breaks right on the shore. Shorebreaks can be particularly hazardous to children, people with limited mobility, and those entering and exiting the water.

Surging Wave

Surging waves occur in areas where there is deep water very close to shore. These waves are common around rocks and can knock people off their feet and sweep them back into deep water.

Wind

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



Offshore winds

- Blow from the land towards the ocean.
- They generally result in a smoother ocean surface and cleaner surf conditions.
- Offshore winds can be particularly hazardous for those using inflatable craft, kayaks, or other watercraft.

Onshore winds

- Blows from the ocean towards the land.
- They generally result in choppy conditions and spilling waves.
- These are commonly called 'sea breezes'.
- Rip currents may be harder to see during onshore winds because of the short choppy waves.

Tides

What is the tide?

The gravitational pull of the moon and the sun causes tidal movement in the earth's oceans and seas.

On any specified tidal day, high tide is the highest of the high waters and low tide is the lowest of the low waters. Tides either rise or fall in the period between high and low tide. Mid-tide is the medium between the high and low tide. High tide generally occurs twice in a 24-hour period; however, this may vary for a location during any given week or month.

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

Hazard	Rising to high tide	Falling to low tide
Rip currents	Generally slower flow speeds.	Faster flowing water and greater definition of rip current channels.
Rocks	Waves breaking higher up the rocks, more dangerous for rock fishing.	Greater exposure to slippery moss and algae.
Sandbars	More water over the sandbar, generally better for swimmers.	Less water over the sandbar, higher danger of spinal injuries.
Waves	Spilling waves, good for learning to surf and bodysurf.	Dumper or plunging waves, dangerous for beginner surfers and swimmers.

It is recommended that all surf lifeguards are aware of tidal movements specific to their beach. The SAFESWIM website allows you to look up the specific tide conditions and hazards at the beach you are patrolling at **safeswim.org.nz**

Rip currents and holes

Rip currents

A rip current is a narrow body of water moving out to sea. Breaking waves transport water towards the shore and rip currents help return that water offshore. Water flows from areas of breaking waves (e.g. over sandbars) to areas of deeper water where fewer waves break (e.g. channels), and flows seaward as a rip current. On some beaches there may be multiple rip currents in a series of deep channels, separated by sandbars.

Rip currents will change quickly depending on tide and changing wave conditions. Different types of rip currents can exist on the same beach and often in close proximity.

Rip currents are most dangerous when a combination of these three factors occur:

1. When there are waves.
2. When the tide is low, or there is a strong outgoing tide.
3. When there are deep channels between sandbars.

Rip currents can behave differently under different wave and tidal conditions. A rip current may recirculate (bringing water back to shore), travel alongshore (sideways along the beach), or exit offshore. Rip currents are dangerous to water users, particularly if they find themselves out of their depth and panic.

Rip current components

Head

The head is where the rip current ends, moving the outgoing water in a broad area. The power of the rip current is exhausted once the water reaches the head and the current disappears. In some cases, water released at the head will recirculate back to shore via the breaking waves.

Neck

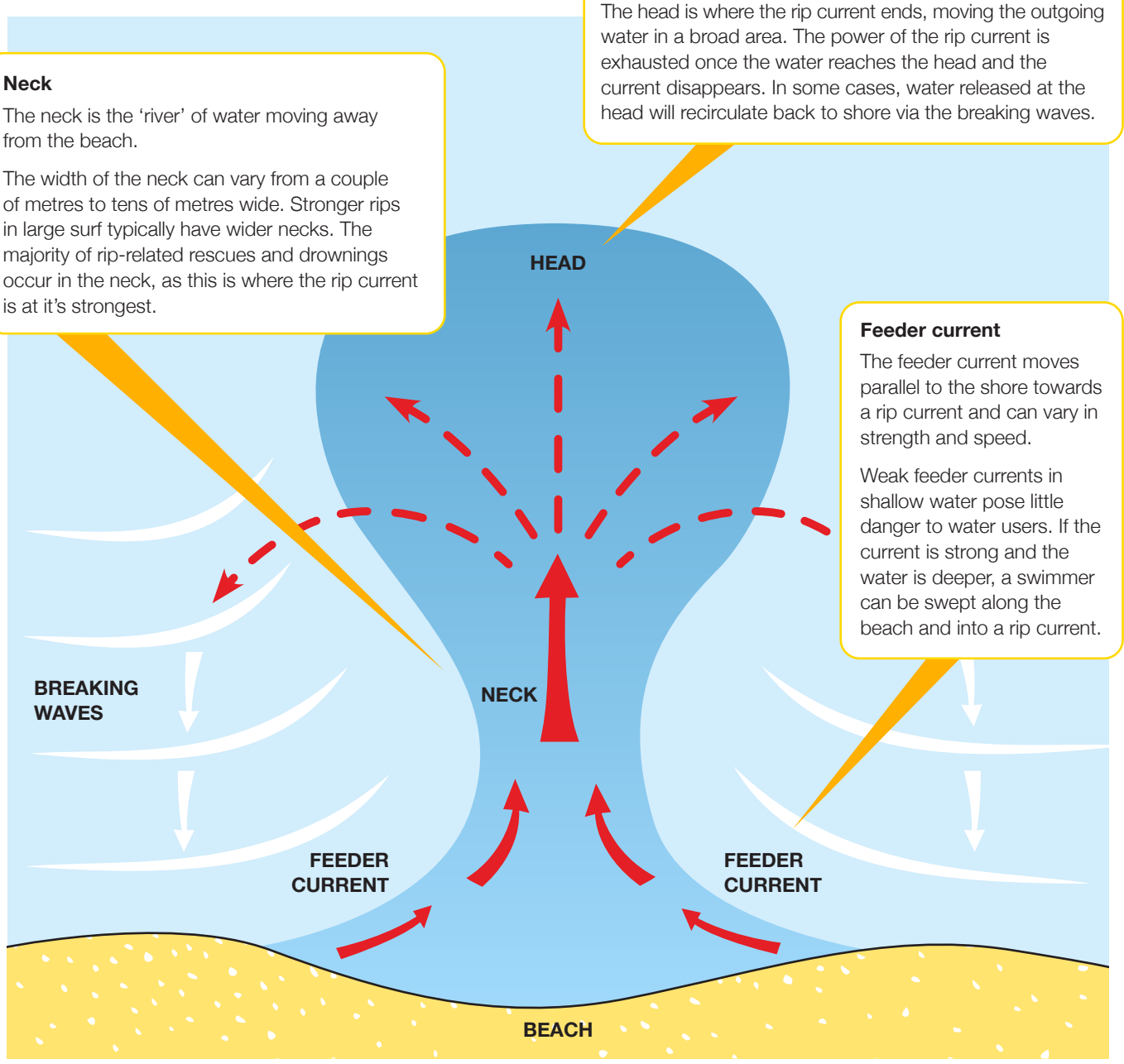
The neck is the 'river' of water moving away from the beach.

The width of the neck can vary from a couple of metres to tens of metres wide. Stronger rips in large surf typically have wider necks. The majority of rip-related rescues and drownings occur in the neck, as this is where the rip current is at it's strongest.

Feeder current

The feeder current moves parallel to the shore towards a rip current and can vary in strength and speed.

Weak feeder currents in shallow water pose little danger to water users. If the current is strong and the water is deeper, a swimmer can be swept along the beach and into a rip current.



How to identify a rip current

It is important to know how to identify rip currents so that you can help manage the beach you patrol, and warn the public who may be heading towards one. Rip currents can be very difficult to see, some identifying features of rip currents include:

- Calm patches in the surf (the rip) with waves breaking each side.
- Rippled or crisscrossed water.
- Discoloured, sandy water.
- Debris floating in the water.
- Foamy or sandy water extending beyond the surf zone.
- An obvious channel, or deeper darker coloured water.

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

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

Practice identifying rip currents at the beach you patrol: how many are there, do they change location, and can you identify them from different angles? If you view the rip current from an elevated location, you will have a better understanding of its characteristics.

Surf lifeguards can also use a rip current to their advantage if they need to get out through the surf quickly.

Escape from a rip current

If in trouble use the **3 R's**:

Relax; float on your back and resist the urge to fight the current.

Raise your hand; signal for help.

Ride the rip; remain floating until the current weakens. Many rips will circulate and bring you back to shallower waters. Only if you are a confident ocean swimmer you should swim parallel to the shore to an area of breaking waves before returning to shore.

Types of rips

There are three common types of rip currents: boundary rips, channel rips and flash rips. Each type of rip current is greatly affected by the characteristics of the beach and surf conditions:

Boundary rip currents

Boundary rip currents are generated by permanent features like a headland, rocks, wharfs or storm water pipes. These features move water offshore, scouring out the sand and creating a deeper channel where the rip current flows out to sea. Boundary rips can remain in the same area for months or even years. The strength and speed of the rip changes during different tides and surf conditions.

Channel rip currents

This type of rip occurs in deeper channels between sandbars. Once established, channel rips can be relatively stable in position over days, weeks, and sometimes months. However, a change in surf conditions can alter the shape of sandbars and channels, and therefore the location of the rip. The strength of channel rips varies at different stages of the tide and is strongest at low tide.

Flash rip currents

These are temporary rip currents generated by increased surf size, increasing the amount of water coming into the shore. These rips occur suddenly, without warning, and decrease rapidly (within two to five minutes). This type of rip can move along the beach and is generally associated with an alongshore feeder current. The nature of these rips means swimmers can quickly be pulled from areas of water that were safe only moments earlier to areas of greater hazard.

Rip currents can flow at up to 3 metres per second, which is significantly faster than most people's swimming ability. This is why trying to swim against a rip current can be potentially very dangerous.

Inshore holes and channels

Besides rip currents, the inshore hole is one of the major problems for the unsuspecting swimmer and, in particular, for small children. Holes and channels form where waves, tides and currents scour out a deeper area on the sea floor.

However, holes can still be present once waves and rip currents have subsided. Inshore holes may form as a trough or gutter that runs parallel to the shore, often with considerable variation in depth, or as a channel between sandbars. Swimmers can be swept into an inshore hole by the backwash of waves or by feeder currents.

It's a great idea to check the beach at low tide to get an idea of where the sandbars, inshore holes, channels, and rip currents will be when the tide is higher.

Get to know your beach

Understanding the beach you patrol and how it changes is essential in your role as a surf lifeguard. You should never stop learning about the surf environment, so ask plenty of questions, gain experience in the water, and pass your knowledge on to other surf lifeguards.

Just as importantly, use your knowledge to educate members of the public about the hazards in the surf environment. Show them the location of rip currents, explain how to avoid them, and teach them the 3 R's (Relax, Raise and Ride).

You can also help manage safety at the beach by considering the tide, surf and weather conditions, as well as the number of water users, types of activities, and water user competence. Think about the likely types of incidents that may occur and what you can do to prevent them, i.e. intercept those walking towards rip currents, (and advise them to swim between the red and yellow flags), and discourage people from using inflatable craft during offshore winds.

Make sure you are working proactively with your team to provide a safe and enjoyable environment for the public!

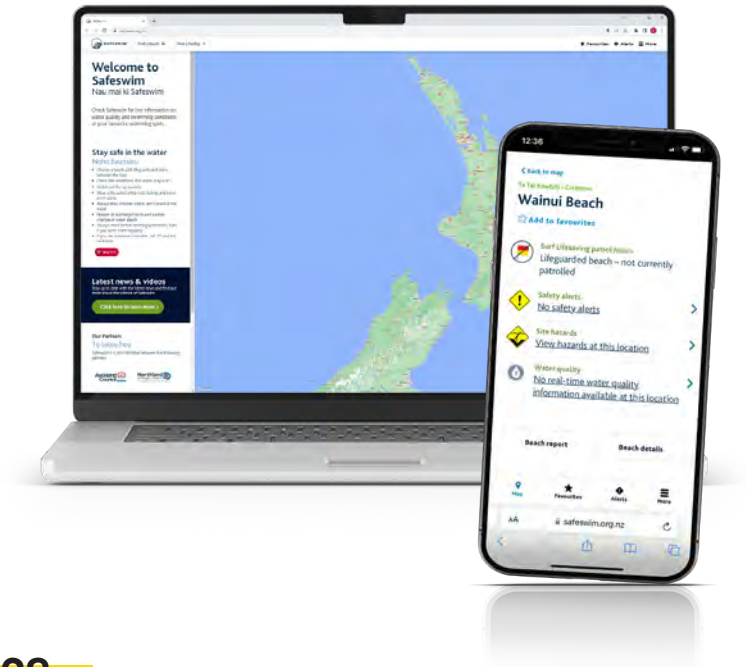
SAFESWIM

The SAFESWIM website is the 'one stop shop' for live beach safety information. SAFESWIM provides information on:

SAFESWIM

- Beach patrol hours.
- Hazards & safety alerts.
- Tides.
- Surf conditions.
- Water temperature.
- Weather.
- Public facilities.

Visit **safeswim.org.nz** for more information.




DHL
SURF LIFEGUARD

4.
COMMUNICATE

Knowledge and skills for effective communication.

In this section:

Lifeguard communication

Types of communication and how to communicate effectively.

Communicating effectively is an essential part of being a surf lifeguard, whether we are communicating to the public or to other patrol members verbally via hand-held radios, or non-verbally by using signals. This section will discuss types of communication and explain how to communicate effectively.

As a surf lifeguard, you might use communication skills in:

- Performing rescues, alone or in a team.
- Informing members of the public about dangers and safety.
- Working with other emergency services or agencies.
- Educating and informing others.
- Completing documentation.
- Learning new procedures.
- Working as a member of a patrol team.

How do we communicate when patrolling?

- Speaking to lifeguards and the public face-to-face, by radio, over a public address system, by phone and other communication tools.
- Filling in forms and recording information.
- Using online apps.
- Wearing a lifeguard uniform to inform the public who you are.
- Using gestures to help the public understand your message, e.g. pointing in the direction you want people to move.
- Using signals to communicate with fellow surf lifeguards and members of the public.
- Using patrol flags and signs to help the public use the beach safely.

Effective communication

Effective communication is the giving and receiving of information in a way that is clear and easily understood by both the communicator and receiver. Effective communication is one of a surf lifeguard's most valuable skills.

The skill of sending and receiving messages in a variety of ways helps surf lifeguards to save lives, to inform and to educate.

Effective communicators must understand that different language is used in different situations. Language wording changes, depending on:

What we are communicating about

The language used on patrol is different from that used when talking about what someone did last night in general conversation.

Who we are communicating with and the relationship we have with them

The language used when talking with members of the public is different to that used with fellow surf lifeguards.

How the communication takes place, whether it is spoken or written

To communicate effectively, we match our language to the situation. We need to work out:

- The purpose of the communication – what.
- The audience of the communication – who.
- The best form of the communication – how.

Five skills to ensure effective communication

There are five key skills that you need to understand and master to be an effective communicator.

Pay attention

Show the person you are interested in what is said.

Observe

Watch the person to pick up non-verbal signals.

Listen

Use any pauses in the conversation to think about what the person is saying.

Summarise

Put what the person has said into a short brief statement to clarify what you have heard and understood.

Respond

Show that you have been listening by responding in an appropriate manner.

Barriers to communication

There are many barriers to effective verbal communication.

- Make sure background noise does not prevent them hearing the message: crowd noise, waves, IRB engines etc.
- Use appropriate language that matches their own language skills. If you are speaking to a person who has english as a second language, don't use jargon and speak slowly.
- Don't make assumptions about them, or their beliefs or feelings on an issue.
- Listen to them. Make sure you understand what they are telling you.
- Avoid conflict with them. Don't argue.
- Use an appropriate tone, emphasis and volume. Use a calm voice.

Verbal communication

Surf lifeguards communicate verbally in a number of ways:

- One-on-one, face-to-face.
- Using a hand-held radio.
- On the phone.
- In a group discussion.
- Speaking to a group.
- Loud speaker or microphone.
- PA (public address) system.

When communicating verbally as a surf lifeguard, you will:

Exchange information

You might ask questions for clarification about an incident, or give instructions/explanations to a member of the public.

Concentrate

On communicating the main points of a skill effectively in a training session.

Participate in open-ended discussions

To clarify issues or solve problems.

Listen

To briefings or explanations, such as a patrol captain's briefing at the start of a patrol.

To communicate effectively, we have to match our language to the situation.

We also need to:

- Check that our message was understood, by getting feedback from the receiver.
- Make sure that we have defined and accepted chains of communication (i.e. patrol member to patrol captain). Use enough words to ensure the message is understood, but not too many for it to be misunderstood.
- Use recognised or shared terms and language. Make sure the message has a clear structure.

Listening skills

To be an effective communicator, you need good listening skills. There are three levels of listening. You should aim for the third level.

Level 1: Non-hearing

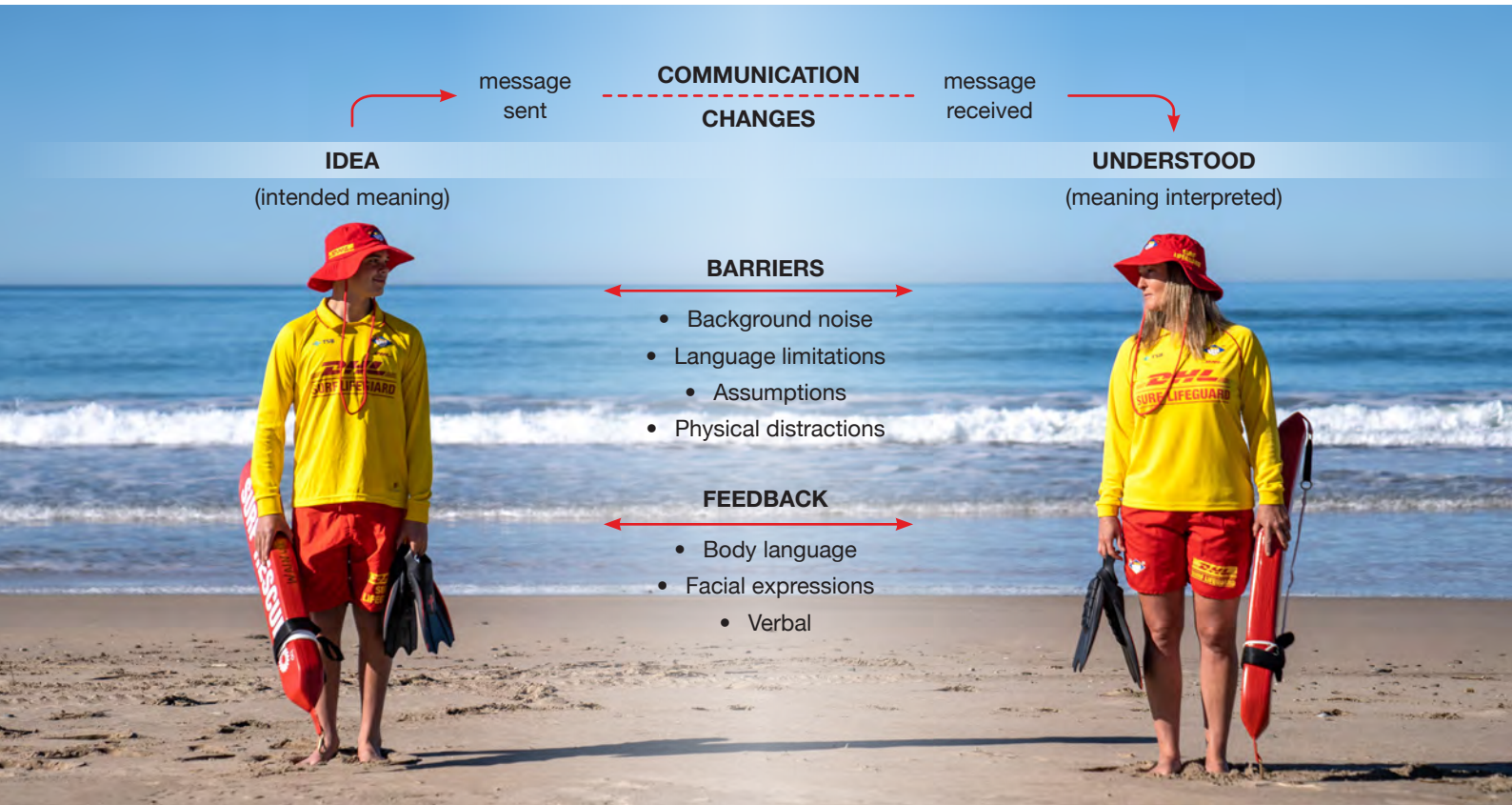
When we are not taking in what is said. We make noises, for example, um, ah or perhaps nod encouragingly, but don't really listen.

Level 2: Hearing

We hear it all and can even remember little bits of the conversation, but we probably can't respond adequately. We may say yes or no, and nod occasionally.

Level 3: Listening and thinking

Active listening. We hear and think about what is being said without tuning out. We respond in an appropriate manner to what is being said. We absorb it.



Radio communication & equipment

Radio communications provide a quick, simple and efficient means of obtaining the assistance, equipment or information needed during lifesaving operations. SLSNZ maintains a range of radio systems, and additional local knowledge of basic operating procedures is an important addition to this information.

Radio basics

Frequency (bands)—The use of SLSNZ frequency bands is for SLSNZ surf lifeguarding use only and requires a license from Radio Spectrum Management NZ. Using unlicensed or incorrect frequencies may result in penalties.

Analogue radio—Analogue radio transmits radio waves in amplitude modulation ('AM') or frequency modulation ('FM') by a signal. VHF marine radio uses analogue radio technology.

Digital radio—Digital radio provides greater voice clarity and eliminates unwanted background noise. All SLSNZ approved radios are digital radios. Digital radio networks also support other functionality like GPS tracking.

Channel—A channel is a frequency programmed into a radio that is used by SLSNZ or other agencies to communicate with each other.

Simplex channel—A simplex channel sends information in one direction at a time and may be reversible. The transmitter and receiver are operating on a single (or the same) frequency. You cannot transmit and receive radio transmissions simultaneously on a simplex channel. Simplex channels are limited to line-of-sight communications. SLSNZ radios have two simplex channels for patrolling use.

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

Network—A radio network is a number of fixed and mobile repeaters linked together to cover a larger area. A network may service a SLSNZ geographic area or even an entire region.

Station—A station relates to the call sign of a particular radio user, group of users or SLSNZ entity.

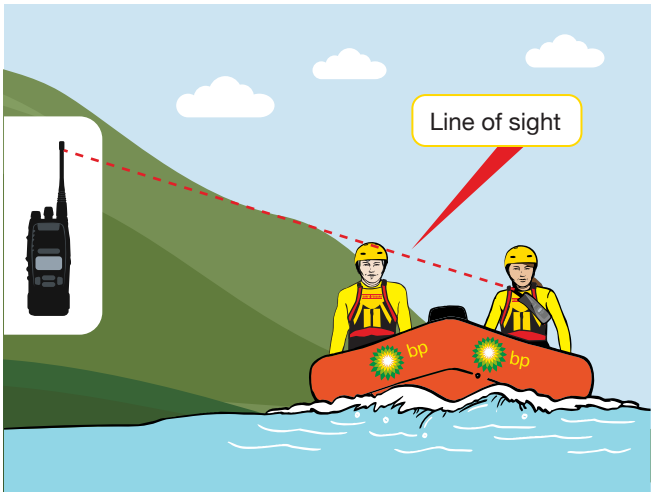
Check your CSOP regarding the specific radios, radio network and channels used at your surf lifesaving club or service.

VHF marine radio network

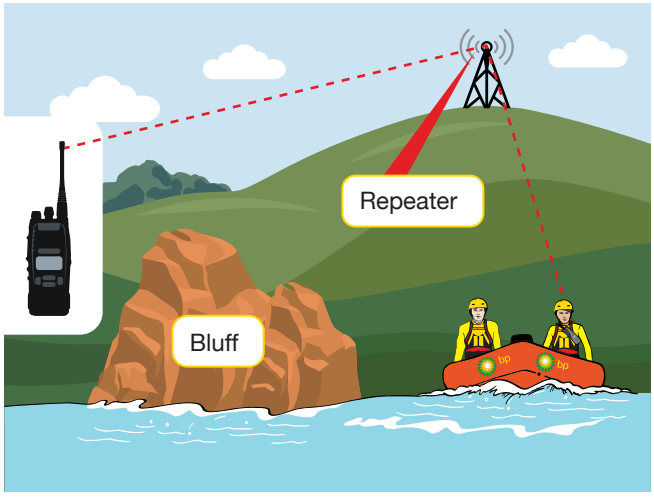
VHF marine radio is an international communications system used by both recreational and commercial vessels.

It is a combination of simplex and repeaters so ships can communicate with other ships or to the shore. Some clubs or regions use VHF for patrol and/or search and rescue operations.

To legally operate a VHF radio, you MUST hold a VHF radio operator's qualification. The radio operations outlined in this section are intended to provide you with adequate knowledge and skills to operate a radio. The information does not give you the qualification required. SLSNZ recommends that you obtain a qualification through your local Coastguard boating education service.



Simplex set up



Repeater set up

Types of radios

The common types of radio equipment used are:

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

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

Your radio

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

Make sure you can identify the following:

- Antenna.
- Battery or power supply indicator.
- Channel selector.
- Inbuilt microphone (or speaker microphone).
- On/off switch.
- 'Press to talk' (PTT) button.
- Volume control.

Some radios may have additional features such as:

- Dual watch (ability to monitor two channels).
- Keypad lock.
- Roaming (automatically select the strongest repeater).
- Scan.

It is vitally important that you protect radio equipment from water, sand, heat and shock (drop/impact). Refer to the NSOPs for procedures on how to protect surf lifesaving club radios.

Surf lifesaving communication centre (SurfCom)

SLSNZ has a national surf lifesaving communication centre, SurfCom. The main roles of SurfCom are to:

- Assist with the coordination of major incidents when several lifesaving services are involved.
- Gather and record operational information.
- Liaise with other emergency services.
- Provide general information to all lifesaving services.

SurfCom can be contacted by using your local radio network or by calling 0800 SAVE LIFE.

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

Radio transmissions

Radio technique

Radios need to be operating on the same channel for communication to occur. Only one radio operator can transmit on a channel at a time, so you will need to take it in turns speaking so that messages can be transmitted and received effectively.

Do:

- Ensure that the channel is not in use before transmitting your message.
- Ensure you are clear of obstructions that may block your radio signal, e.g. thick concrete walls or sand dunes.
- Ensure the antenna of the portable radio is as vertical as possible at all times (always point it to the sky).
- Hold the portable radio, or the microphone from a mobile radio, approximately 10 cm from your mouth and to the side.
- Press and hold the PTT button for 2 seconds before speaking clearly to transmit your message.
- Release the PTT button once you have finished your message.
- Remain stationary when transmitting if possible, as running to an incident while trying to transmit can make it difficult for other stations to understand your message.
- Shield the microphone when talking in high noise and windy areas.
- Speak as if you were talking to someone next to you.
- Speak carefully and slowly.
- Be brief. When you are using the radio it means others cannot. You may be preventing somebody else calling for assistance in an emergency.
- Think about radio procedures before transmitting as well as what you are going to say, e.g. include call signs, prowords and other radio terminology wherever possible.

Do not:

- Carry a radio by the antenna or touch the antenna while the radio is in operation.
- Expect an immediate reply from an IRB or RWC operator if they are in the surf zone or performing a rescue.
- Hold the radio like a mobile phone as you will not be speaking into the microphone.
- Hold the radio on it's side.
- Press the PTT button when another station is transmitting, as you may interfere with that transmission.
- Yell into the radio even if there is a lot of noise around as this may cause distortion and make your message difficult to understand.
- Have arguments.

Interruptions to transmissions

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

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

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

Prowords

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

Proword	Functional meaning
Over	I've finished my message and am handing over to you for a reply.
Go ahead	Go ahead with your message.
Stand by	Stand by for more information while I do something. Other stations may transmit.
Break	Wait for my reply while I break to call another station, e.g., SurfCom.
Roger	I understand.
Wilco	I understand and will go do what you have asked me to do.
Say again	Please say your message again.
Correction	The correct information will follow after I say 'correction'. An error has been made.
Affirmative	'Yes' or 'Permission granted'.
Negative	'No' or 'Permission denied'.
Out	I am getting out of this conversation. End of conversation, network is clear and free for use.

Call signs

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

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

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

Standard call signs		
Standard	**Used for**	**Example**
SurfCom	Contacting SurfCom	SurfCom
All stations	Everyone on the network	All call signs across all surf lifesaving clubs on the network
Patrol	Patrol captain (or next available patrol member)	Waihi patrol
Roving	A roving patrol	Ōtaki roving
IRB	Inflatable rescue boat	Wainui IRB
ATV	All-Terrain Vehicle, or side-by-side	Maranui ATV
Tower #	Patrol tower	Tower one
RWC #	Rescue water craft	RWC six

Radio protocols

Signing on

You may be required to sign on with SurfCom at the start of patrol over the radio network or the Surf Patrol App. Check your CSOPs regarding the method of sign on.

Possible information required for sign on includes:

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

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

Radio checks

Radio checks are the simplest form of radio transmission and are the quickest way of checking that your radio equipment is functioning correctly. Only carry out a radio check between your surf lifesaving club and SurfCom if you feel your equipment is faulty.

Example radio check:

New Brighton flags, New Brighton flags, this is New Brighton base. Over.

New Brighton base. This is New Brighton flags receiving you. Over.

Requesting radio check. Over.

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

Your message is also loud and clear*. Out.

*Messages can be loud and clear, unreadable, or nothing heard.

Example radio call:

Titahi Bay tower, Titahi Bay tower, this is Titahi Bay IRB. Over.

Titahi Bay IRB, this is Titahi Bay tower receiving you. Over.

We have completed our roaming patrol, nothing sighted. Over.

Roger, Titahi Bay IRB, please return to base. Over.

Roger, Titahi Bay tower, I am returning to base. Out.

Radio check readability scale	
Loud and clear	Can receive and understand transmissions
Unreadable	Can receive but cannot understand transmissions
Nothing heard	No transmission received

During patrol

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

Do not:

- Declare a patient as deceased over the radio.
- Provide personal information such as phone numbers.
- Use bad language/profanity.
- Use personal names unless absolutely necessary.
- Use radios for social conversation.

Signing off

You may be required you to sign off with SurfCom at the end of patrol over the radio network or Surf Patrol App. Check your CSOPs regarding the method of sign off.

Incidents and emergencies

Emergency call

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

Other radio users stop transmitting and wait for instructions to assist if required.

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

Incident procedures

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

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

Rescue, Rescue, Rescue (pause). 'SurfCom, SurfCom, this is Wainui calling with an incident. Over.

Wainui, this is SurfCom. Go ahead. Over.

SurfCom. This is Wainui. 200 metres south of the tower, we have rescued a male in difficulty, who was caught in a rip. Patient is a male surfer in his early 20s, can you please call an ambulance. Over.

All copied Wainui, calling an ambulance now. Please let me know if the patient's condition worsens. SurfCom standing by.

4 Ps for incident procedures

P	Meaning	Answers the question(s)	Examples
1	**Position**	What is the specific position of the person that is as close and accurate as possible?	• About 50 m north of the patrol tower … • At the fixed rip about 5 m south of the flags, and 20 m offshore... • Approximately 100 m south of the New Brighton pier… • Northern end of the beach on the rocks...
2	**Problem**	What is the patient's problem? What do you require?	• Problem is minor cuts to the patient's arms. We require a first aid kit… • Swimmers are caught in the rip and fatigued. We require the IRB to assist… • Problem is a dislocated shoulder. We require the methoxy and an ambulance... • Problem is a major fin chop to the left leg. We require an ambulance and a first aid kit…
3	**People**	How many people? How to identify them—age, gender, clothing?	• Patients include a teenage female and a teenage male both wearing gym clothes… • Patients are two female children wearing pink rash shirts… • Patient is a female in her late 70s wearing a red hat... • Patient is a male surfer in his late 20s with a beard and many tattoos…
4	**Progress**	What is happening now to progress the scene?	• The female is now unconscious and not breathing. We are commencing CPR and require a defibrillator… • The IRB is on the way to rescue the children and we will assess their condition once they have been returned to shore… • The ambulance has arrived on the scene... • The bandages are not controlling the severe bleeding and they are losing consciousness. We require a trauma kit and a defibrillator…

Radio maintenance

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

All radios should be checked prior to, and after, their use, including:

- Operation of on/off and volume control knobs or buttons.
- Operation of channel change control knobs or buttons.
- Operation of PTT button (Push To Talk).
- Damage to the case or antenna.
- Check if water has gotten into the unit.
- Check that the microphone is free from water.
- Check for signs of water around and under the battery.
- Battery contacts are in good condition.
- Operation of any programmed buttons.
- Display screens (if fitted) are clearly readable.
- Perform a radio check.

After use, radio bags, cases and harnesses should be rinsed lightly with fresh water to remove salt water and sand, then air-dried.

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

Battery charging

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

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

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

General information

- The SLSNZ radio network is automatically voice-recorded. Always follow radio procedures and use the correct call signs.
- All SLSNZ radios are fitted with an identification number ('IN') to uniquely identify a transmitting radio.
- Radios should not be used in thunderstorms except when there is an emergency.
- SLSNZ radios also have public marine VHF channels programmed into them – these are for search and rescue use and communication with other agencies, not general patrolling duties. Strict laws apply to the operation of VHF marine channels and only those holding the appropriate qualifications (Maritime VHF Operator's Certificate) should operate them to avoid penalties outlined in The Radio communications Act 1992.
- Where possible, use simplex channels for SLSNZ club-specific transmissions and the SLSNZ rescue network for transmission with SurfCom and other clubs/patrol areas. Refer to your local CSOPs.

Non-verbal communication

Communication is more than just words. In fact, words are only a small part of communication. One study looked at the influence of words, voice and gestures and found that the message was made up of:

- 7% words.
- 38% audible non-verbal communication, such as voice tone, stress, pace and pitch.
- 55% visual non-verbal communication, such as body gestures, postures and facial expressions.

Non-verbal communication plays an important part in the overall communication process. You need to be aware of your own non-verbal communication and to be able to notice and read the non-verbal communications of others.

Body language can be positive, supporting the verbal message being sent. For example, if you want swimmers to move so that they are between the flags, using a rescue tube or blowing a whistle to gain their attention, speak politely but firmly into a loudspeaker, or use a loud voice, asking them to move back to between the flags. Point to where you want them to move and begin to move in that direction. Smile to acknowledge the interaction as they move.

Non-verbal communication can also be negative, and conflict with the verbal message. Frowning, leaning over people and wagging fingers are all examples of non-verbal communication methods that can be negative in their effect on others.

Remember that the following non-verbal communication forms can be 'read':

- Gesture and body language.
- Touch.
- Eye contact.
- Facial expressions.
- Posture.
- Walking.
- Gestures or hand signals.
- General physical appearance.
- Mode of dress and grooming.
- Sounds.
- Voice tones, pitch, volume, pace.
- Silence.

The way we dress as a surf lifeguard is important. When we wear a recognised uniform we are communicating to the public.

We stand out and are easily found, and we give people the message that we care. It is also important that our dress and actions give a safety message. Sun smart clothing, appropriate clothing for in the water, such as togs and wetsuits, and behaviour, such as swimming between the flags and taking care when using an IRB, are crucial in terms of what we communicate about our organisation to the public.

It is important that you get feedback on both your verbal and non-verbal communication skills while you are training so that you can be an effective communicator as a surf lifeguard.

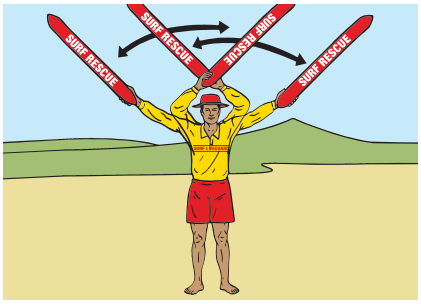
Signals

Signals are another type of non-verbal communication used commonly by surf lifeguards. Arm signals and/or tube signals are used to communicate between the land and the sea.

A surf lifeguard should continue to send a signal until it is clear that the message has been understood by the receiver.

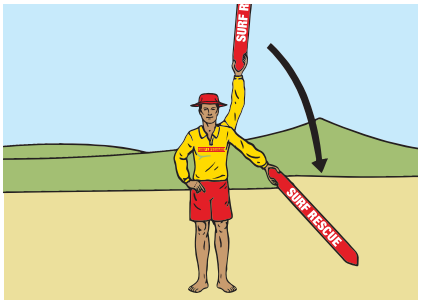
Signal communication is not limited to the use of rescue tubes. Alternatives include arms, paddles or flags.

Signalling from land to sea



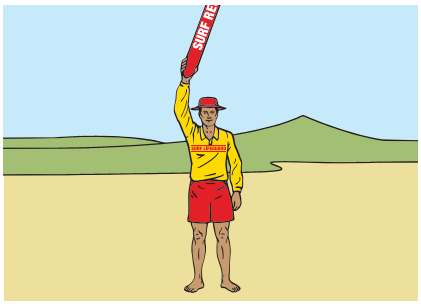
To attract attention

Two rescue tubes waved to and fro, crossing above the head.



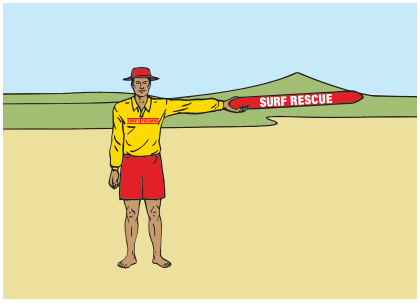
Message understood

One rescue tube held stationary above the head and cut away quickly.



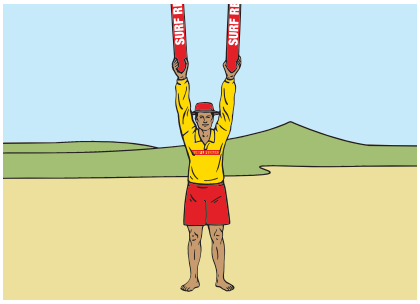
Return to shore

One rescue tube held above the head.



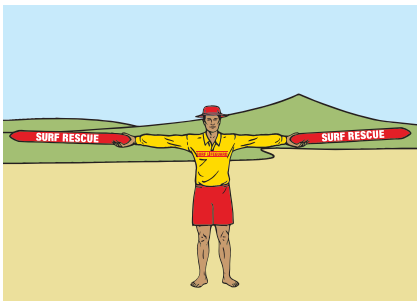
Proceed in the direction indicated

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



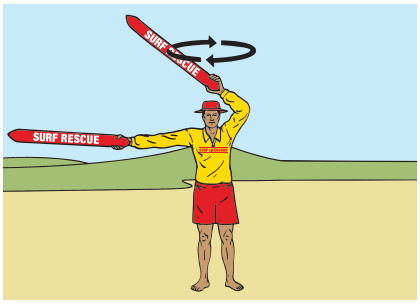

Proceed further out to sea

Two rescue tubes held above the head.



Remain stationary

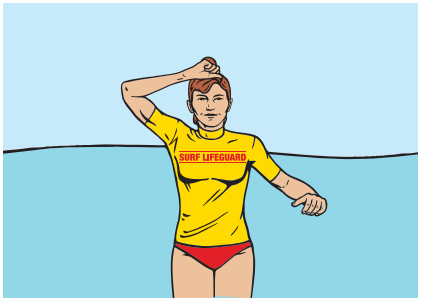
Two rescue tubes held at arm's length parallel to the ground.



Pick up swimmers

One rescue tube waved in a circular manner around and above the head and a second held parallel to the water's edge and horizontal to the ground to indicate where swimmers are located.

Signalling from sea to land



Ok signal

Internationally recognised diver's ok signal. One arm above heads, with fist positioned on top of head to form an "O".

Shore signal received and understood

One arm held vertically, then cut away sharply.

All clear

Both arms held in the horizontal position.

Assistance required

One arm waved to and fro above the head.

Graphic communication

The following signs are examples of those used by surf lifeguards in New Zealand. All signage meets international standards. For more information please refer to the beach hazard signage NSOP.

Additional hazards and beach conditions can be displayed on this sign board.

Signs and flags

Patrol flag & swim between flags sign

Used together, this flag and sign indicate surf lifeguard patrolled areas. Swim between flags sign can also be used separately at beach access ways and other areas to indicate where the flagged area is.

Warning – swimming not advised

Used to indicate swimming is not advised in the indicated area. If the surf is too dangerous to set out patrol flags, then these signs are placed on the beach along with the danger flag.

Warning – strong currents

Placed on the beach to indicate to beach-goers that there are strong currents present.

Warning – sharks

Used when there is a shark sighting.

Warning – jellyfish

Placed on the beach to indicate there are jellyfish present either in the water or on the beach.

Danger flag

Fly the red flag from your clubhouse in place of the patrol flag when sea conditions are too dangerous to designate a patrolled area on the beach.

5.
RESPOND

This section gives details on rescue equipment used by surf lifeguards and outlines the skills and knowledge they require to respond to rescue situations.

In this section:

Rescue equipment

Rescue equipment used by surf lifeguards.

Surf lifeguard skills

The skills and knowledge required to respond to rescue situations.

It is essential all patrol gear and equipment is in proper working order and condition prior to your patrol commencing, so that you can be confident it is 'rescue ready' and can be used should the need arise.

Any damaged equipment should be reported to your patrol captain as soon as possible, removed from patrol and tagged as 'do not use' (as per your club's CSOP) and repaired or replaced where appropriate.

Prevention, recognition and rescue

Equipment alone cannot reduce the numbers of people who drown or need rescuing on New Zealand beaches. A skilled surf lifeguard, however, can utilise rescue equipment to help prevent people getting into difficulty.

It is important that equipment is standardised throughout surf lifesaving rescue services to ensure consistency and proper training.

Surf lifeguard safety

People who are in trouble or think they are drowning are desperate for buoyant support. A panicked patient is a real threat to an approaching surf lifeguard. The patient may attempt to grab the surf lifeguard, forcing both underwater and into a mutually life-threatening situation. Buoyant rescue equipment provided to patients has an immediate calming effect because the primary source of fear (going under water) is eliminated. This allows the surf lifeguard to safely rescue the patient.

Speed

Because the success of some rescues depends greatly on how fast a surf lifeguard can reach a patient, equipment has been adapted or developed to increase surf lifeguard response time.

Rescue tube

The rescue tube is a flexible buoy with embedded strap. It's three major components are:

- Flotation capability.
- Lanyard/rope.
- Shoulder strap.

The rescue tube and surf fins are the core equipment of a surf lifeguard. Whenever a surf lifeguard is on duty, they must always have immediate access to a rescue tube. The rescue tube forms a part of a surf lifeguard's personal safety equipment and should be available to the surf lifeguard at all times while on duty.

Advantages of the rescue tube

- A surf lifeguard has access to a rescue tube at all times.
- Rescue tubes are distinctive and can identify a surf lifeguard quickly.
- It is a useful buoyancy tool which can keep swimmers afloat.
- Surf lifeguards are able to use a rescue tube in an IRB, around rocks or in caves.
- It can be used with other rescue equipment.
- Hydrodynamic: The rescue tube creates very little drag for a surf lifeguard swimming with it.
- Secures the patient.
- It is also easily stored in an IRB and is soft.

Limitations of the rescue tube

- Single patient use: The rescue tube can be used for more than one patient, but is designed for a single patient.
- The clip of a rescue tube is hard and can cause injury or lacerations. This is unusual, but it is best to secure the tube clip away from your face around the patient to avoid this problem.
- The tube lanyard is long and if not controlled correctly could become tangled in an IRB or RWC engine. Care and control is required when approaching these types of craft with a patient.
- The rescue tube is particularly susceptible to environmental degradation. It should be stored hanging up out of the sun and left to dry out after patrol.

Surf fins

At many surf life saving clubs, the individual surf lifeguard has his or her own personal set of surf fins.

Surf fins increase your ability to quickly reach and return a patient to shore. Surf fins should be used in rescues that require a long approach swim and in deep-water rescues involving currents. In rocky areas, surf fins provide protection for the feet. Surf fins are not, however, needed in shallow water rescues because the time to put on surf fins can delay response. Surf fins should be stored and carried with rescue tubes at all times.

How to put fins on effectively while entering the water

1. Wade into the water with the rescue tube in one hand and swim fins in the other.
2. Dolphin dive until it is too deep to continue, or it is more effective to swim.
3. Roll onto your back and put on the swim fins during your final dive.
4. Roll back over and continue swimming through the surf zone.

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

Rescue board

The rescue board is an important piece of rescue equipment. It is made from a polyurethane foam and/or polyester glass. This construction makes the board buoyant enough to easily carry two people. Rescue boards are kept as rescue equipment in or near the flagged area. The bright yellow colour helps beach-goers identify lifeguards in the water easily.

SLSNZ offers a Board Rescue Module which can be completed at your club. Get in touch with your clubs training manager or club instructor for more information, or visit the SLSNZ website.

Advantages of the rescue board

- Quick response: Depending on the surf size, and the surf lifeguards skill level, the rescue board could be paddled more quickly than swimming to the patient.
- Rescue boards are good for high buoyancy use when there are multiple patients. They can be used for multiple patients to hold on to while an IRB or further help arrives.
- Rescue boards can be effectively used to fend off a panicked patient.

Limitations of the rescue board

- Insecure patient: Unlike the rescue tube, a rescue board does not secure the patient in place. It is the responsibility of the surf lifeguard to secure the patient on the board.
- Single patient use: The rescue board can be used for more than one patient, but is designed for a single patient.
- High skill level: Surf lifeguards using rescue boards require a high level of skill, depending on conditions, to successfully complete a board rescue and negotiate the surf conditions.
- When entering moving water, especially in ‘shore break’ conditions, care must be taken to avoid injury or losing your grip on the rescue board.

IRB (Inflatable rescue boat)

The IRB (inflatable rescue boat), was used first by the surf lifeguards of New Zealand. These boats are 3m long and use a small surf specific 30 horsepower outboard engine for speed. A driver and a crewperson, will sit on the inflated pontoons while holding select handles, to operate the IRB. To keep the IRB light, fuel bladders are made from synthetic material and minimal equipment is kept inside the IRB. A propguard is attached to the engine for safety and to protect swimmers and surf lifeguards from the sharp and dangerous propeller. An IRB should only be operated by a refreshed and qualified surf lifeguard who also holds a current or refreshed IRB Drivers and/or IRB crewpersons award.

Advantages of the IRB

- IRBs are perhaps the most versatile boats available to surf lifeguards. Used by qualified drivers, they can successfully handle large surf conditions.
- IRBs can be easily operated in the surf line for extended periods of time.
- They are fast because they draw little water as they float across the surface.
- When necessary, an IRB can hold two to three patients.
- In a mass rescue, the IRB can be used as a raft to which many patients can cling until further support arrives.
- IRBs can be successfully used close to large crowds of swimmers with limited risk.

Limitations of the IRB

- They are small open boats in which the driver and crew can be subjected to heavy bouncing over waves, and to wet conditions.
- They require constant, though inexpensive, maintenance.
- When caught in the wrong position by a breaking wave, IRBs can be flipped. Even then, however, their soft design means they present less risk than boats with a rigid hull.

RWC (Rescue water craft)

The RWC (rescue water craft) is specially outfitted for surf interaction and should only be operated by a refreshed and qualified surf lifeguard who also holds a refreshed RWC operators award.

The RWC has multiple applications in the lifesaving context. Its primary use includes supporting patrol operations which extend the reach of lifesaving services beyond traditional patrol locations or search and rescue operations.

Advantages of the RWC

- Agility at low speed.
- Effectiveness in large surf, around rocks and jetties.
- Can be operated by one surf lifeguard.
- Can be righted and restarted after capsize.
- Can be operated in the shallow water of harbours, estuaries, and inlets.
- A rapid response to isolated areas and/or in support of a patrol incident is required.
- Navigating safely in large and or messy surf.
- Navigating around rocks and in tight operating spaces.
- Shepherding swimmers in the surf zone.
- Patrolling large open sections of coastline/beach.
- Single person rescues.

Limitations of the RWC

- High speeds increases risks to operators and others that may be affected by RWC.
- Weight makes it difficult to launch and retrieve.
- High speed and weight pose a risk to other water users.
- Limited patient carrying capability depending on craft and sled.
- Significant training and supervision are required to produce competent operator.

Surf lifeguard skills & response techniques

Skills and knowledge required to respond in rescues

Surf swimming

Being a confident and competent swimmer in the surf is an essential part of being a surf lifeguard. Some basic knowledge needed for surf swimming follows.

Prior to swimming

Lulls

In heavy surf you can watch for a while and look for a pattern in the waves - maybe six or eight, and then a lull before the next set. You will have an easier swim through the lull.

Rip currents

A surf lifeguard may need to use the rip current as a means of getting out the back of heavy surf.

Landmarks

Identify landmarks that can be used as a guide while you are in the water.

Heading out through the surf

Wading

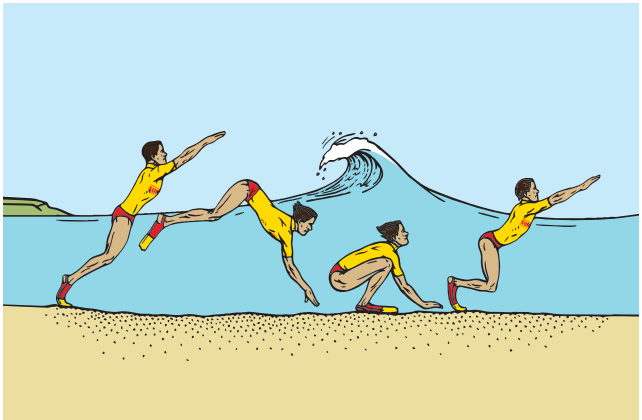
The quickest way to get through the shallow water is to use a high hurdle-type stride known as wading. This is achieved by lifting the knees high and then swinging the legs out to the side. Swinging your arms side by side will also help your momentum.

Dolphin diving

Between knee and waist depth, wading becomes difficult. At this stage a surf lifeguard should commence dolphin diving. This technique helps preserve your forward momentum against the effect of waves trying to push you back to shore.

Follow the steps below to dolphin dive in flat water:

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



The swim out

On the swim out, you should regularly lift your head to check where the next wave is, or where the patient is situated. A good surf lifeguard can achieve this without altering his or her normal swimming action.

Large surf and deeper water

1. Dive below the surface before the white water reaches you. You may not be able to reach the sea floor.
2. Wait for the wave surge and turbulence to pass over you.
3. Swim to the surface.
4. Check surf conditions ahead.
5. Start swimming again or wait for a lull.

Returning through the surf

Body surfing

Body surfing is the ability to ride waves without any equipment. The skill required to become a good body surfer comes from practice.

Catching the wave

As the wave is almost upon you, start swimming towards shore as fast as you can.

If you are in shallow enough water, you can push off the bottom for extra speed.

Keep swimming until you feel the wave begin to lift and carry you. You will probably have to swim a bit to hold your position on the wave, kicking really deep and hard.

If you started in the right place… your will body surf!

As the wave gets steeper, you will tilt forward and surf along the face, with white water tumbling and bubbling around or behind you.

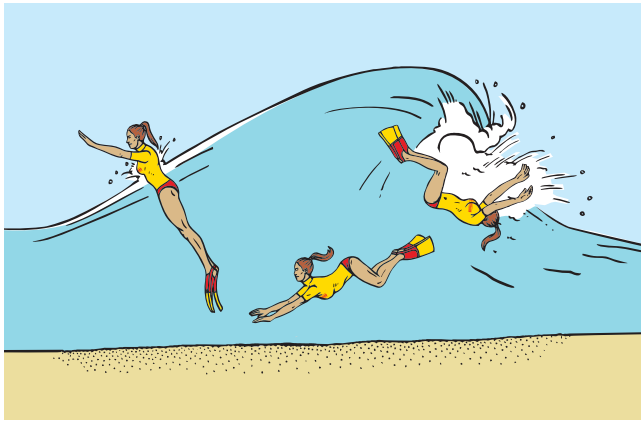
How do I stop?

As you approach the beach, you will probably want to stop before you run a-ground!

You “pull out” by turning your body away from the breaking face of the wave, or else dive under and grab the sand, wait for the wave to pass and then push forward off the bottom with your legs.

Wipe out

If, or when, you wipe out, keep cool and relax. You’ll tumble head over heels, surrounded by swirling bubbles and sand. Curl up in a ball and wait for things to calm down a bit. Then head for the surface and reposition yourself for the next wave. While it may seem a long time that you are held under, it’s no more than a few seconds.

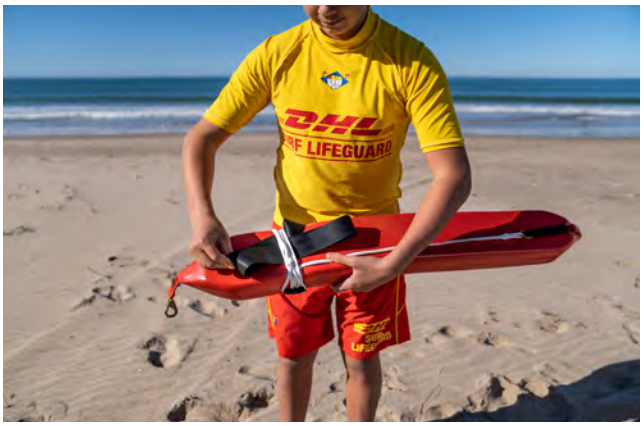


Tube rescue

As mentioned earlier, the rescue tube is the core equipment of a surf lifeguard and should always be able to be at hand.

Tying a rescue tube

- Roll the connecting lanyard around the centre of the rescue tube (or between 1/2 way and 3/4 towards the buckle end).
- Tuck the shoulder strap under the coiled lanyard.
- Once the shoulder strap is pulled loose from the lanyard, the rescue tube and lanyard will automatically unwind freely.



Putting on the rescue tube

When a surf lifeguard pulls on the black shoulder strap, the lanyard unravels ready for use in a rescue. The surf lifeguard should place their head and one arm through the shoulder strap. The strap should sit on one shoulder and under the other, crossing the chest diagonally. It is more comfortable to have the strap on the shoulder opposite to the side that you breathe on when swimming.

Entering the water

Surf fins should be used when performing a tube rescue.

When you enter the water, wade and dolphin dive to waist depth, then put on your surf fins on before swimming towards the patient, observing them at all times.

Approaching the patient

When you are within voice range, reassure the patient so you create a calm atmosphere.

Before you approach the patient stop about 5m from them and push the rescue tube forward. This allows a safe distance between you and the patient and also ensures the patient doesn't 'launch' themselves at the surf lifeguard. At this point the surf lifeguard may also wish to observe the defensive position.

The patient will grab the rescue tube, which will keep them afloat.

When the patient has calmed down, the surf lifeguard should approach with caution. Keep talking and reassuring the patient before clipping the rescue tube around them.

Multiple patients

When two people are in difficulty, the surf lifeguard should assess the best order in which to assist the patients. Let other surf lifeguards know you need help by giving the ASSISTANCE REQUIRED signal while approaching. The first patient should be secured with the rescue tube. Then assist any other patient(s) to a position where they can lock their arms inside the rescue tube to keep themselves afloat.

While waiting for assistance, the surf lifeguard should talk to patients, explaining what will happen when assistance arrives. Ask questions to keep them calm, e.g. What is your name? Where are you from? How old are you?

Unconscious patient

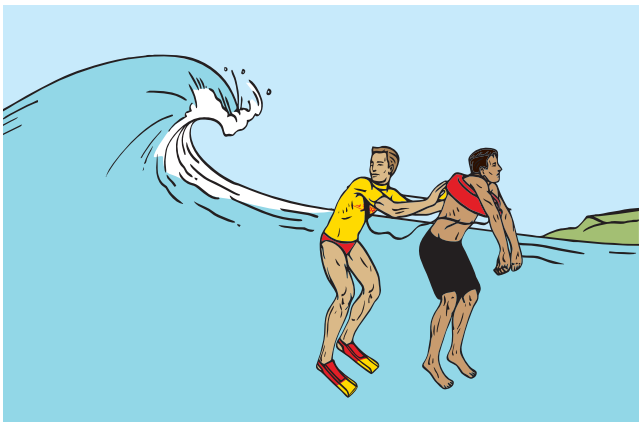
Upon reaching an unconscious patient, the surf lifeguard should immediately give the ASSISTANCE REQUIRED signal. The surf lifeguard should clip the rescue tube around the patient and immediately carry out the standard assessment procedure.

To secure an unconscious patient who is face down in the water:

- Approach the patient from behind.
- Holding the clip end of the rescue tube, reach under the armpit and across the chest of the patient.
- With your free hand, grab the clip end from under the patient's other armpit and clip the rescue tube up.
- The patient's head should be held above the water while you do this.
- Pull the patient on to his or her back and turn the tube towards you so you do not tangle the rope, and so the clip is above the chest. You may need to have the clip on the second ring or rope to achieve this.

Return to shore

- The surf lifeguard encourages the patient to lie back and assist by kicking while you swim towards shore, taking advantage of surf conditions.
- Once in the wave zone, the surf lifeguard should do backstroke to keep an eye on the patient and the surf. This ensures the patient doesn't slip out of the tube and to keep an eye on approaching waves. If a large wave approaches, the surf lifeguard should go back, secure the patient and tell him or her to hold their breath as you both go under the wave.
- Try to duck your heads under the wave and then, while holding on to the tube kick for the surface. Depending on the size of the wave, facing towards the wave or away are both options.
- On reaching the shallows, the surf lifeguard helps the patient to dry land. The rescuer should walk backwards to keep an eye on the surf signalling the assistance required signal if you need help from your team to get the patient up the beach.



Double tube tow

A surf lifeguard providing back-up can assist in returning the patient to shore by using a double rescue tube tow. This is effective when you have a large patient or when conditions are difficult, such as coming out of a rip or near rocks.

- The second surf lifeguard attaches the clip end of his or her tube to a ring on the first surf lifeguard's tube.
- Surf lifeguards swim back to the beach parallel to each other about one metre apart. The second surf lifeguard should be nearly a body length in front, so that the two surf lifeguards do not tangle with each other.
- Once in the surf zone, one surf lifeguard should do backstroke to keep a watch on the patient and the surf.
- If a large wave approaches, one surf lifeguard should go back and secure the patient, and tell him or her to hold their breath as you both go under the wave. The other surf lifeguard should go out to the side to avoid a tangle.

Single person drag

The single person drag is the best way to handle an unconscious patient when there is nobody to help you.

- Grasp the patient in a shoulder grip, maintaining an open airway.
- Drag the patient from the water to the beach as quickly as possible.

Hint: The higher you hold the patient, the easier it is to drag.

- Gently lower the patient onto his or her back, releasing your grip and supporting the patient's head in a maximum head tilt.
- The patient is now in a position to be assessed.

On shore

Once you have made it onto the beach, you should:

- Check the health of the patient (ABCs).
- Talk to the patient about safe swimming.
- Inform the patrol captain.
- Complete an SLSNZ incident and patient report form.

Two-person drag

The two-person drag is one of the easiest ways to transport a patient who is unable to walk.

- Put the patient in a sitting position with his or her arms extended outwards. One surf lifeguard stands on one side, with the other on the other side.
- The surf lifeguards each put one arm, (the one closest to the patient), under the patient's armpit and grasp the clip of the rescue tube next to each other.
- The surf lifeguards use their outside arms to support the patient's arms near the elbow.
- The surf lifeguards lift together, using their inside arms (the outside arm is only a support), then walk the patient up onto the beach.

Carries

Two-person carry

- Kneel on one knee behind the patient, with your other foot grounded close to your knee.
- Place each arm underneath the armpit directly in front of you, with one hand supporting the head by holding the chin. Lift the patient's torso up, leaving the feet on the ground. Remember to keep your knees bent when lifting.
- The second surf lifeguard lifts the patient's legs and holds them near the knee or for larger patients they should hold under their thighs. The higher up they are held, the less weight the first surf lifeguard takes.
- The surf lifeguard holding the legs must communicate with the other surf lifeguard to direct him or her along a safe route.

Two-person carry alternative

After a rescue, whenever possible, it is better to carry a patient to a place of safety using two people. This reduces the potential of injury to the surf lifeguard and allows better patient management.

Note: This carry works best if the two rescuers are of similar height.

- First surf lifeguard brings the patient to shore using the one person drag. As soon as possible the second surf lifeguard arrives to help.
- The first surf lifeguard slides one of their arms out from under the armpit of the patient and uses it to support the patients head. The second surf lifeguard slides their arm under the armpit so they end up side-on to the patient, facing the first surf lifeguard.
- Both surf lifeguards bend their knees so the patients' armpits sit on their shoulders, and then they stand upright.
- The patient should now be supported by the rescuer's shoulders and is easy to carry.
- One or both surf lifeguards continue to support the patient's head tilted backwards so the airway is opened. If the patient is unconscious, one of the rescuers can assist by holding the chin and opening the mouth.
- Both surf lifeguards walk sideways up the beach, continuing to face each other, maintaining control over the patient's airway.

Releases

Surf lifeguards are strongly advised to use recognised surf rescue equipment such as IRBs, RWCs, rescue tubes, or rescue boards when they carry out a rescue.

However, it is still important to know how to keep yourself out of danger and safe when you to perform a rescue without equipment.

Defensive position

When approaching conscious people in difficulty, the use of a defensive position allows a surf lifeguard to make a final assessment safely.

- Maintain a safe distance from the person in difficulty.
- Tuck your legs under your body and push them forward.
- Maintain position by sculling.
- Give clear instructions and encouragement.
- Talk to the patient.

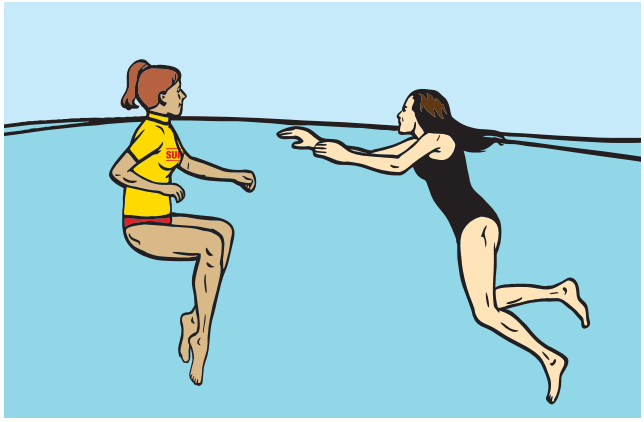
When the person in difficulty attempts to grasp you:

- Tuck your legs under your body and push them forward in the defensive position. Kick away vigorously.
- Adopt the defensive position again at a safer distance.
- Talk to the patient after the release has been completed to reassure them.

Recovery position

The recovery position is used to monitor patients who have a low level of consciousness and who are unable to move themselves into a position that allows the surf lifeguard to monitor their Airway, Breathing, Circulation. If your patient does have low levels of consciousness, you must immediately call for assistance.

For the full steps on how to perform the recovery position see page 80.



Blocking technique

When a person in difficulty lunges suddenly at a surf lifeguard before the surf lifeguard can move away, the following blocking techniques can be used.

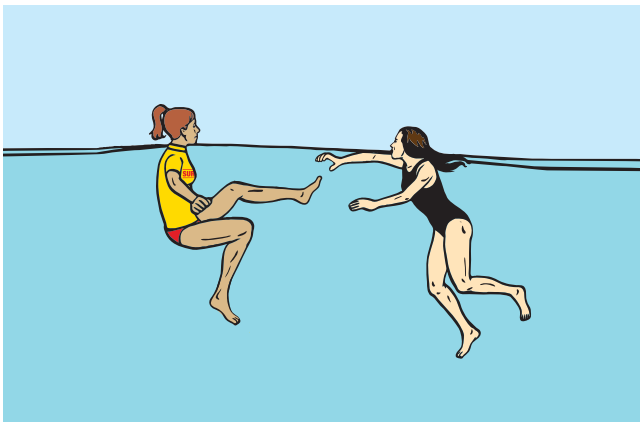
If the surf lifeguard has a rescue tube, it can be used as a block between the patient and the surf lifeguard. The rescue tube will also provide support to the patient.

Arm block

The surf lifeguard's arms can be extended to press against the patient's chest. The surf lifeguard then either dives under the patient, or combines a strong arm thrust with a quick reverse against him or her.

Leg block

The rescuer adopts a tuck position, placing one foot against the patient's chest, shoulder or hip, and extends the leg to push off (not kick), forcing the patient away.



Escape techniques

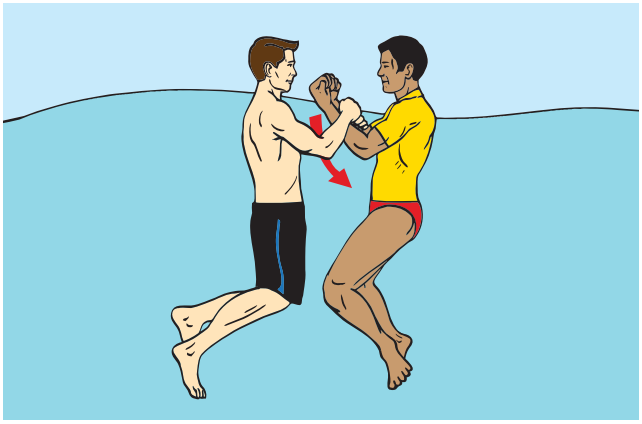
Escape from a wrist grasp

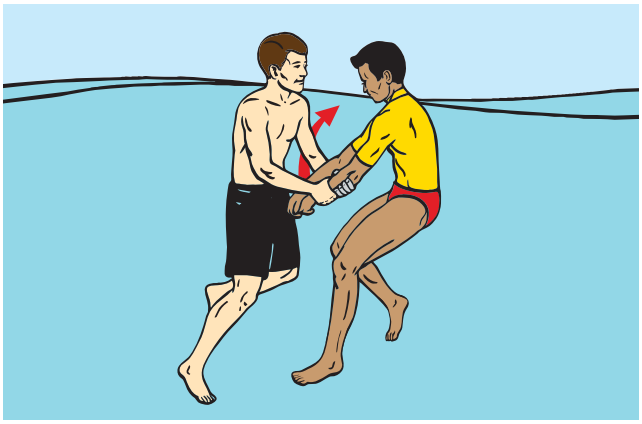
When a patient grasps your wrist with two hands:

- Reach down or up between the arms of the patient and grasp your own hand.
- When your arm is going up between the patient's arms, pull your arms down with force, or pull up if your arm is down between the patient's arm.

When a patient grasps your wrist with one hand:

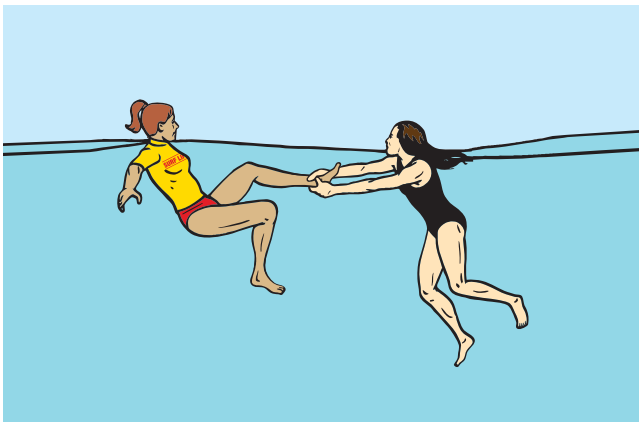
- Reach down or up on the outside of the patient's arms and grasp your own hand.
- When your arm is going up, pull your arms down with force or pull up if your arm is down.
- If this does not break the patient's grasp, splash water into his or her eyes with your free arm.
- Talk to the patient after the release has been completed to reassure them.

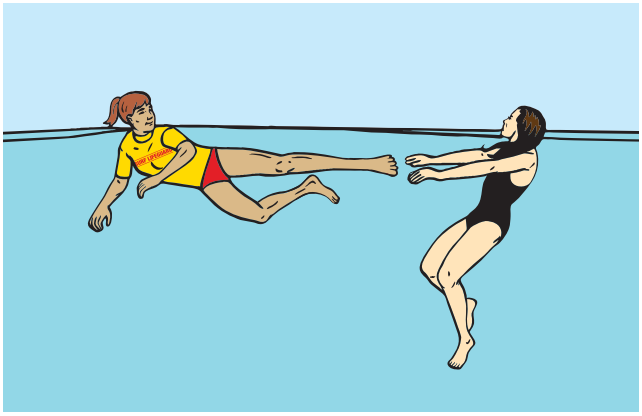




Escape from an ankle grasp

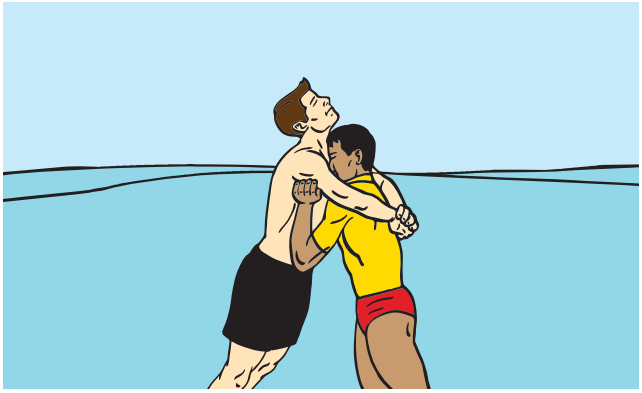
- Twist your body to finish either on your side or in the prone position.
- Use a gentle kicking motion until you are clear of the patient.
- Talk to the patient after the release has been completed to reassure them.





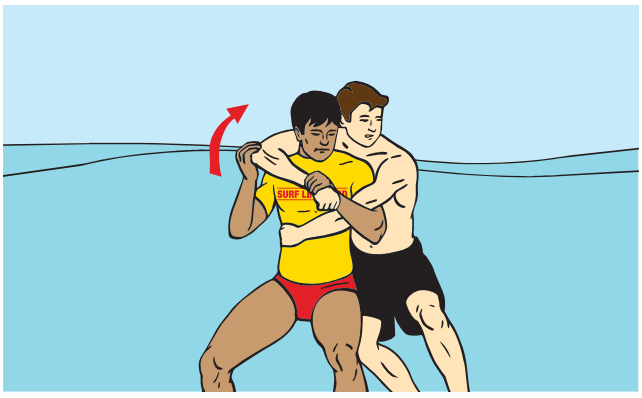
Escape from a front grasp

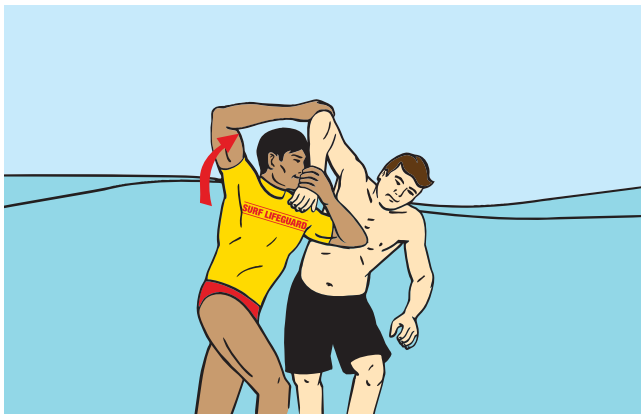
- Take a deep breath and tuck your chin close to your chest to protect your throat.
- Grasp patient's elbows/armpits, pushing your thumbs into the inside of the elbow/armpits.
- Push the patient's arms upwards while you duck under water to release yourself.
- Talk to the patient after the release has been completed to reassure them.



Escape from a rear grasp

- Take a deep breath and tuck your chin close to your chest to protect your throat.
- Grasp the patient's elbow at the back of your head, as well as the wrist on the same arm.
- Push the patient's arms upwards while you duck under water to release yourself.
- Talk to the patient after the release has been completed to reassure them.





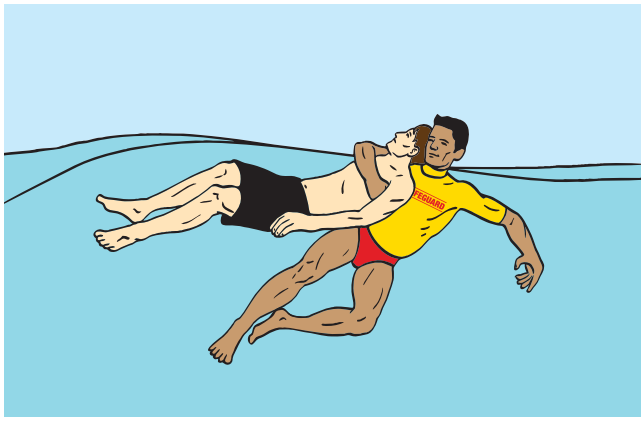
Tows

Cross chest tow

Use when water conditions are rough, as it keeps the patient's face clear of the water.

Note: Not recommended for surf lifeguards or patients who are larger than themselves.

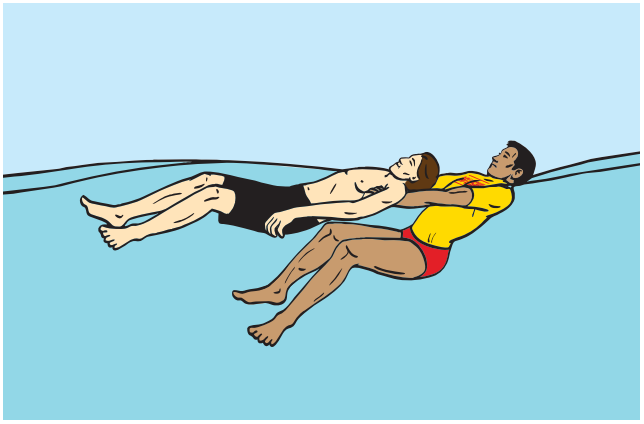
- Approach the person in difficulty from behind. Pass one arm over the corresponding shoulder and chest of the patient.
- Grip under the armpit and clamp the elbow to the patient's chest (ensuring appropriate respect is given to female patients).
- Use the scissor kick in conjunction with your lower arm stroke.



Double armpit tow

Use when you need to control the patient's body position or if you have a larger patient.

The rescuer grips both armpits with straight arms and uses the lifesaving backstroke kick to tow the patient to safety.



Patient identification

On the beach

A good surf lifeguard is able to pick out those people on the beach who are potential patients or more likely to get into difficulty.

Children

A young child in the shallows can easily be knocked over by a wave and dragged out to sea. Parents/caregivers should be encouraged to be with their children in the water.

Elderly & overweight people

Usually lack physical strength and stamina.

Very thin people

May lack physical strength and are more likely to get cold quickly.

Migrants

Generally have little experience of New Zealand surf conditions.

Flotation users

Inflatable rings, wave skis, lilos, boogie boards. A flotation user may not be a competent swimmer. Strong offshore winds can quickly push a person on a flotation device out beyond his or her depth.

Intoxicated persons

Alcohol and/or drugs and swimming do not mix!

Improperly dressed

Such as wearing jeans, long tshirts or dresses. The weight of their clothes increases dramatically when it gets wet, making swimming difficult. Also, such people are likely to have had little swimming experience, otherwise they would have proper swimming gear.

Scanning

A surf lifeguard on 'watch' duty should observe all beach and surf users. Priority should be given to those swimming within the flagged area.

This surf lifeguard needs to be on the lookout for:

- Swimmers in difficulty.
- Anything that may prove a hazard to the beach-going public.

Scanning procedures

Scanning is the structured watching of an area, its users and their activities. Effective scanning is the foundation of the surf lifesaving patrol (surveillance and prevention) system. Scanning requirements and techniques are affected by different factors, including:

- The number of users and their activities.
- The number of surf lifeguards and their location.
- The level of experience and training of the surf lifeguards on duty.
- The beach layout and any special geographical features.
- The shape and size of the supervision area.
- Weather and surf conditions affecting visibility.

Effective scanning assumes that surf lifeguards can see the entire area, that they know what they are looking for, and that they will recognise it when they see it. The basic principles of scanning are:

- Surf lifeguards must be positioned so they can maintain clear, unobstructed sight-lines.
- Surf lifeguards must take steps to minimise the effect of reflection or glare, by changing position or by wearing sunglasses.
- Surf lifeguards' scanning strategies must compensate for being unable to see below the surface, and for their distance from the activity of surf users.
- Surf lifeguards must understand the signs of potential trouble and the characteristic behaviours of those in need of help.
- Surf lifeguards should be rotated at regular intervals of about 30 minutes for optimum efficiency. Fatigue and other factors may reduce the effectiveness of a surf lifeguard after that length of time on scanning duty.
- If in doubt, it pays to always go out and check on the swimmer.

The senses and what they tell us

Surf lifeguards must use their senses to monitor what is happening around them so they can anticipate and spot trouble.

Vision

- Track the general movement of swimmers. Watch for changing weather conditions.
- Monitor the positions and activities of other surf lifeguards.

Hearing

- Listen for unusual sounds, which might indicate potential danger.
- Listen for signals from other surf lifeguards or beach users.

Smell

- Smells can warn of dangers that may be silent and/or invisible.
- Be aware of unfamiliar smells.

How to scan

Studies indicate that drowning can occur in seconds. The less time it takes to scan an area effectively, the better.

Surf lifeguards who have patrolled at a beach regularly come to know its characteristic sights and sounds, plus patterns and rhythms of activity that are normal for that beach during any given period.

Fixed focus

- Focus upon specific people and what they are doing. Look and listen for the unusual.

Wide focus

- Use your peripheral vision, your side view, to detect movement and notice activity.
- Maintain focus and avoid turning your back to the sea, the area under surveillance, for extended periods.

Avoiding fatigue

- Avoid staring for long periods at one thing. Give your eyes a break by focusing momentarily on some distant object or on the horizon.
- Move your visual area by turning your head, not just your eyes.

Moving focus

- Move your eyes at a moderate pace across the surveillance area, sweeping back and forth to take in environmental conditions that might affect patrol behaviour and safety issues.
- Use moving focus for short periods only.

Tracking

Track a particular moving target for a set period. Track the progress of individuals who submerge (go under the surface), and those who fit the high-risk profile, such as a lone child at the water's edge.

Where to scan

Sweep your eyes over your zone, moving your head to look at things in front of you, to the right and to the left, and look behind you regularly. Surf lifeguards who are in an elevated position should also look below them. Include other surf lifeguards on each sweep, to make sure you receive any visual communications they might be sending.

Scan the surface of the water. Look for potential danger points, such as rips, gutters, drop-offs, rocky out crops, or sandbars.

5 Minute scanning approach

This technique is simple to learn and attempts to organise surf lifeguards' visual search patterns into an organised strategy. It can, in fact, be adapted for any person engaged in surveillance or supervision.

Principles

- Every five minutes, change your posture, position and scanning pattern.
- To reduce eye fatigue, move your head and eyes together. Rotation keeps you more alert.
- Movement helps to prevent boredom. Count people in the area every five minutes.

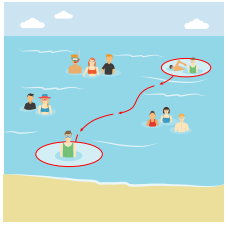
Posture

Three types of postures are used when scanning:

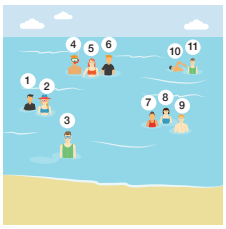
- Standing.
- Sitting.
- Strolling.

Position

Position yourself so you can see everyone. Three main points should be viewed. They can be varied by distance to the surveillance area.

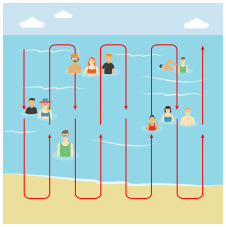


Connect the dots: Work your way through the area you are scanning by moving your eyes from head to head.

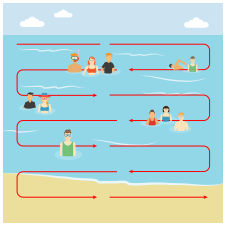


Head count: Try to count the number of people in your area, to conclude each five-minute period.

Grouping: Sort beach users into groups (i.e. area of activity)



Vertical: Start from the shore and scan out to sea in a straight line, then move left and scan in a straight line back to shore.



Horizontal: Start from the shore or horizon, and scan right to left, at the end of the beach sweep and return to the start and continue closer in or further out.

Signs of a swimmer in difficulty

Surf lifeguards must be able to detect a person in trouble. Signs of a swimmer in difficulty include:

Poor swimmer

Usually able to keep head above water. Has a swimming stroke that barely clears the water and no visible kick.

Hair in eyes

The natural instinct of a person in control is to brush his or her hair out of the eyes. Hair in the eyes indicates that the person is more concerned about keeping his or her head above water.

Facing the shore

This is a sign that the person is concerned about his or her position and wishes to return to shore. Waves may wash over the head of the person who makes no attempt to duck under.

Hand waving

Very few people raise their arm when in distress, either because of pride or lack of strength. What appears to be a hand wave may be a call for help.

Climbing the ladder

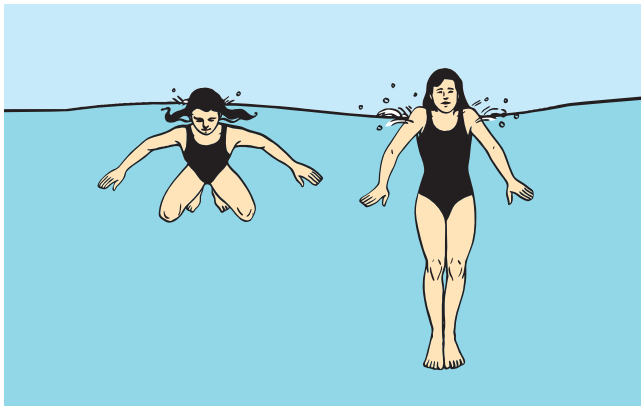
This is a person in the initial stages of drowning. His or her head is usually tilted back and facing upwards. The action is similar to an upward crawling motion.

Arms flailing

This is an attempt to keep the head above the water. The person seldom screams or waves for help and appears panicked.

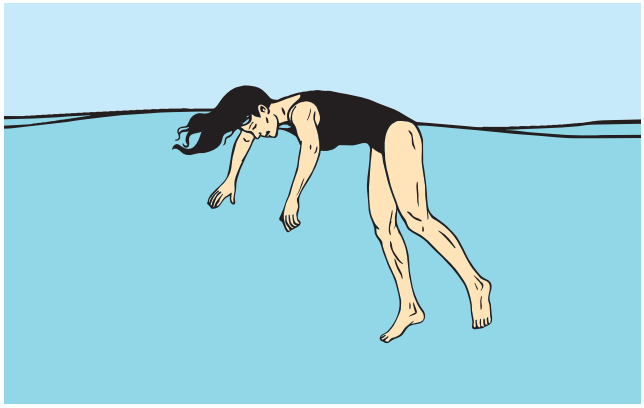
Bobbing up and down

This person is attempting to get air and is close to giving up.



Unconscious person

Is completely limp in the water. May be on or under the surface of the water.



Injured swimmer

Adopts an awkward position in the water, caused by grasping the injured limb or body part. May not be able to wave for help. May call for help.

People clinging to an object

Often a sign that they are too tired or frightened to continue swimming. They may use a boogie board, lilo, or rubber tyre to keep afloat. May also be clinging to rocks or a pier.

Two heads together

This could be two people trying to keep each other afloat. Be careful … it could also be two lovers.

6.
PERFORM

The information in this section covers CPR and basic first aid.

In this section:

Cardiopulmonary resuscitation

Knowledge and skills needed to perform effective CPR.

First aid

Knowledge and skills needed to perform basic first aid.

Emergency care

A surf lifeguard's biggest impact comes through preventing harm. That requires strong surf lifeguarding skills, maturity, and experience. Surf lifeguards also must minimise harm which has already occurred. That requires knowledge, confidence, and an ability to do the right thing at the right moment. It doesn't happen automatically. It has to be practiced regularly.

This section on resuscitation and first aid aims to introduce you to core medical concepts, but actually being prepared for an emergency will require ongoing work on your part.

In resuscitation, simple things make the biggest difference.

It is not advanced interventions, medications, or hospital care that saves the majority of lives in out-of-hospital cardiac arrests — it is basic life support, performed competently.

- Positioning the head, neck, and jaw so the airway is completely unobstructed.
- Getting air in and out effectively through good mouth-to-mask ventilation.
- Doing adequate compressions with minimal interruptions and without any hesitation.
- Getting an AED on the chest quickly are key skills for a surf lifeguard who someday may be asked to save a life.

These are not hard skills to learn, but they are hard skills to deploy effectively during an emergency. There's only one path towards mastery; thinking your way through scenarios ahead of time, and practicing them regularly.

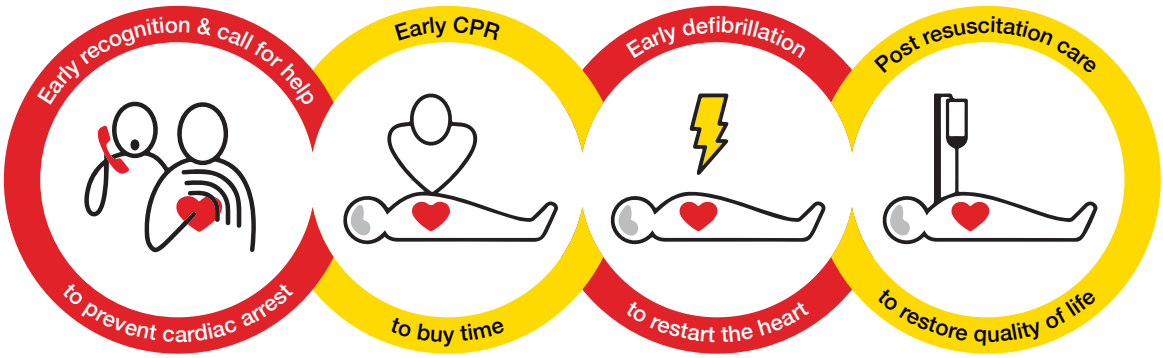
Keep in mind:

- In drowning and paediatric cardiac arrests, the most critical intervention **is prompt and effective ventilation**.
- In sudden cardiac arrests, the most critical interventions are **prompt chest compressions and early defibrillation**.
- In all cases, the New Zealand Resuscitation Council's Basic Life Support guidelines should be followed.

Chain of survival

The Chain of Survival describes the critical actions required to treat life-threatening emergencies. In order for the patient to have the best chance of surviving an out-of-hospital cardiac arrest, CPR and **early defibrillation** should be provided within the first few minutes of the cardiac arrest.

- **Early recognition and call for help. Dial 111.**
- **Early CPR. Unresponsive and not breathing normally: start CPR.**
- **Early defibrillation. Every minute matters.**
- **Post-resuscitation care. Transfer care to ambulance officers.**



CPR

(Cardiopulmonary resuscitation)
Knowledge and skills needed to perform effective CPR

DRSABCD

The DRSABCD action plan is the foundation of basic life support, as well as advanced resuscitation. Use it every time you assess or reassess a sick patient.

BASIC LIFE SUPPORT

- **D** — **Dangers?**
- **R** — **Responsive?**
- **S** — **Send for help**
- **A** — **Open Airway**
- **B** — **Normal Breathing?**
- **C** — **Start CPR**
  30 compressions / 2 breaths
- **D** — **Attach Defibrillator (AED)**
  as soon as available and follow its prompts

Continue CPR until responsiveness or normal breathing returns

Response

Check responsiveness using **AVPU**:

- **Alert:** The patient is clearly awake. They score an 'A'.
- **Voice:** Ask loudly, "Hi, I'm a lifeguard. Are you alright?" If they open their eyes, move, or make a sound, they score a 'V'.
- **Pain**: If no response, squeeze their shoulder firmly. If they open their eyes, move, or make a sound, they score a 'P'.
- **Unconscious**: If there is no response to pain, they score a 'U'.

An alert talking patient usually has an adequate airway, breathing, and circulation. Checking for a pulse is extremely unreliable in an emergency and should not be performed before starting CPR. If the patient is unresponsive and not breathing normally, begin CPR as detailed below.

If there is massive bleeding, immediately apply firm, direct pressure on the bleeding site.

Danger

Check for any danger to you, the patient, or bystanders, and make the area safe. Evacuate the patient from a hazardous area if you can do so safely. A surf lifeguard can use a double ankle drag or wrist drag in an emergency. Remain aware of ongoing risks from incoming tide, waves and vehicles.

Send for help

Call for an ambulance early, or send a helper to call and return with confirmation that help is on the way, and how long it will take help to arrive. Once your helper has confirmed help is on the way, ask them to locate a defibrillator (AED).

If you're alone with an adult who is unresponsive and not breathing normally, place them in recovery position, establish an open airway, and then go for help.

If you're alone with an infant or child, perform CPR for 1 minute, then go for help. If possible, carry an infant or small child with you.

Airway

Put on your personal protective equipment if available.

- First, check all unconscious patients for airway obstruction. If solid or obstructing debris can be seen, remove it with your fingers.
- Head tilt, chin lift: All adult patients who are unconscious and lying on their back require a head tilt, chin lift. This opens the collapsed soft tissues of the airway. Snoring, gurgling, loud or noisy breathing is usually a sign of a partially obstructed airway and must corrected.
- Most obstructed airways can be successfully managed with proper head, neck, and jaw positioning.
- Most drowned patients will produce foam and liquid from their mouth and nose during CPR. Do not ever stop CPR to suction foam or watery liquid. Ignore it and continue ventilations and compressions.
- If the airway is blocked by semi-solid liquid (such as thick vomit), turn the patient onto their side, scoop out the visible debris, then quickly replace the patient on their back and continue CPR. Minimise any interruptions to CPR.

Never force a conscious patient to lie flat on their back. Doing so may compromise their airway or breathing. When a patient is lying flat on their back, it places them at higher risk of aspiration (breathing in regurgitated stomach contents), which can threaten their airway and breathing. For any breathing patient, recovery position is preferred.

Breathing

Look for movement of the chest and abdomen. **Listen** for breathing. **Feel** for chest rise.

Do not take longer than 10 seconds.

If the patient is unresponsive and not breathing normally, start CPR immediately. If there are occasional gasps of breathing, or you are uncertain if they are breathing adequately, **begin CPR**. It is much safer to start CPR and stop if unnecessary, than to delay CPR.

Effective ventilations

Mouth-to-mouth, mouth-to-nose, and mouth-to-mask ventilation are all very effective methods of rescue breathing. They also pose infection risks to the surf lifeguard and the patient.

- Surf lifeguards should always carry gloves and a CPR mask while on patrol, and use PPE and barrier devices such as a face mask.

In the COVID era, direct mouth-to-mouth ventilations are an individual's choice, but they need to have carefully considered all risks and the benefit to the patient. Mouth-to-face-shield and mouth to-mask are breathing options that are somewhat safer, but still expose patient and surf lifeguard to the risk of infection. These techniques should not be used if there is a safer alternative such as a bag-valve-mask device available.

A surf lifeguard must always assess risk for themselves. They should determine their own level of personal health risk, understand the risk of infection currently in their community, be able to estimate the level of risk the patient may pose, and balance that against the possible benefit to the patient. One rule will not fit all scenarios. Please take all reasonable steps to keep yourself safe.

- To perform expired air ventilation, first ensure the airway is open using head-tilt, chin lift, and proper head positioning.
- Then seal the patient's nose by pinching the nostrils closed.

- Take a normal breath in, make an airtight seal on the ventilation shield, rescue mask, or the patient's lips.
- Deliver each breath steadily over 1 second. Ensure visible rise of the chest with each breath.
- A lack of chest rise suggests a poor seal or an airway obstruction.
- Remove your lips and watch the chest fall as the patient exhales. Take a fresh breath for the next ventilation.
- Two breaths should take no more than 2-3 seconds. When those two breaths have been delivered, return to chest compressions immediately, without any delay.
- Whether you are a sole surf lifeguard, or you have a helper, focus on minimising any interruptions to chest compressions.

Bag-valve-mask (BVM) ventilation:

The technique of BVM ventilation is outside the scope of this manual. However, if you are ever asked to assist with BVM ventilation keep one thing in mind: **BVM ventilation is always a 2-person procedure**. One person squeezes the bag while the other holds the face mask on the patient's face with BOTH their hands using a 'two thumbs down grip'. If you do not have two people available to perform BVM ventilation, do not use a BVM. In a real resuscitation, the seal you get on the patient's face using just one hand is too often unacceptable, resulting in the loss of the airway, an air leak, or inflation of the stomach rather than the lungs.

CPR

Unresponsive and not breathing normally:

- Chest compressions should be performed on all patients who are unresponsive and not breathing normally.

How to perform compressions:

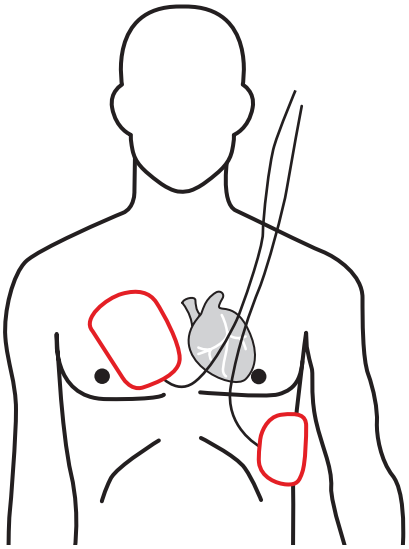
- Kneel beside the patient's chest. Place your hands over the lower half of the sternum. Place the heel of one hand in the centre of the patient's chest. Place the heel of your other hand directly on top of the first hand.
  - For children over 1 year, place the heel of one hand in the centre of the chest.
  - For an infant, use two fingers in the centre of the chest, just below the nipple line.
- With straight, locked elbows and your shoulders placed directly over the patient's chest, bend at the waist, and use the weight of your upper body to compress the chest. Compress 1/3 of the depth of the chest.
- The rate of compressions is 100-120 per minute. For all ages, the ratio of compressions to ventilations is **"30:2, no matter who"**.
- After compression, the chest must be allowed to fully recoil. Lift your palms off the chest slightly to ensure a complete release of chest pressure. Keep your fingertips touching the patient, this will help you maintain proper position.
- Push hard, push fast, and minimise interruptions to CPR.

We need to deliver "high-performance CPR" by providing minimally interrupted chest compressions with the correct rate, depth, and chest wall release. This is coordinated with the correct rate, timing and volume of ventilations, synchronised with early AED use.

Examples of time-critical interventions in different resuscitation scenarios:

Drowning	Ventilation	**Asthma**	Salbutamol inhaler
Sudden cardiac arrest	Defibrillation	**Choking**	Back blows / chest thrusts
Bleeding	Direct pressure / bleeding control	**Intoxication/ Airway obstruction/ Head injury**	Head tilt / chin lift; recovery position if breathing
Anaphylaxis	Adrenaline		

Defibrillation (AED)



Automated external defibrillators (AEDs):

- The most effective single treatment in the management of cardiac arrest is defibrillation (yet only 5% of cardiac arrests involve the use of an AED in the community). In locations abroad where community CPR is universal, and AEDs are widespread, survival rates from cardiac arrest can be over 50%. In New Zealand, the rate is around 13%.
- In a sudden cardiac arrest, a sudden irregular rhythm stops the pumping action of the heart. Within seconds, the patient becomes unresponsive due to low oxygen levels in the brain. Chest compressions circulate oxygen from the bloodstream to the heart and brain, keeping the patient alive for a few critical minutes, until an AED can arrive for defibrillation.

In a sudden cardiac arrest, each one-minute delay in defibrillation, results in a 10% drop in the survival rate. Every minute matters!

- Immediate CPR and rapid defibrillation are the two most effective interventions a surf lifeguard can perform in a cardiac arrest.

  "No shock advised, continue CPR"

- AEDs can only work when there is a shockable cardiac rhythm. This usually occurs after the sudden collapse of an adult. This is a called a primary cardiac arrest, and is the most common cause of cardiac arrest in the community. A prompt shock can sometimes reset the heart's rhythm and restore its pumping ability. Reducing the "time to first shock" is critical.
- However, in the majority of cardiac arrests there will not be a shockable rhythm and the AED will advise to "continue CPR". The surf lifeguard must be prepared to focus on the airway, breathing, and circulation (the ABCs). The vast majority of drownings, traumatic cardiac arrests, respiratory arrests, and paediatric arrests will fall into this category. Providing effective ventilations is critical.

Continue CPR until:

- The patient recovers, and there are obvious signs of life, such as breathing.
- A person with a higher level of training takes over patient care.
- You are too exhausted to continue.
- The scene becomes unsafe.

Unsuccessful CPR

- Even in the most skilled of hands, the majority of patients in cardiac arrest will not survive.
- If the patient has died, call 111 for Police. Cover the patient with a blanket, and keep bystanders clear of the scene.
- Be sensitive to the concerns of family, bystanders, and fellow surf lifeguards, as well as your own emotional wellbeing. Don't discuss the case with media or bystanders.
- Debrief with fellow surf lifeguards, and complete the necessary documentation.
- Understand there can be an immediate and a delayed stress response to critical incidents. SLSNZ provides free counselling for all surf lifeguards involved in incidents.

Death

Verification of death cannot by performed by a surf lifeguard. Legally, this requires a doctor, nurse, EMT or paramedic.

When CPR should not be performed

Do not begin CPR if there has been submersion for longer than an hour, or if the patient is obviously decomposed. Always seek senior advice in these circumstances. If you are in doubt, begin CPR.

CPR key points and ratios

Adult CPR

- Ratio is 30:2.
- Breaths should be given over one (1) second.
- Rate is 100-120 beats per minute.
- If the rescuer is alone, go for help immediately, then return and continue.
- The correct compression depth is approximately 1/3 of the patient's chest depth.

Child CPR (one – eight years)

- Ratio is 30:2.
- Breaths should be given over one (1) second.
- Rate is 100-120 beats per minute.
- Use one-two hands compressions on a child, in the centre of the chest between the nipples.
- The correct compression depth is approximately 1/3 of the patient's chest depth.

Infant CPR (under one year)

- Ratio is 30:2.
- The infant must be lying on a flat firm surface.
- When ventilating an infant, breathe into the nose and mouth do not tilt the infants head back excessively.
- Rate is 100-120 per minute.
- Compressions are performed with only the middle and index fingers, just below the nipple line.
- The correct compression depth is approximately 1/3 of the patient's chest depth.

CPR summary table

	Adult	Child	Infant
Age range (yrs)	Over 8	1 to 8	Birth to 1
Compress with	2 hands	1 or 2 hands	2 fingers
Breathe into	Mouth	Mouth	Mouth + nose
Compression rate per min	100-120	100-120	100-120
Compression/Ventilation ratio	30:2	30:2	30:2
Compression depth	1/3 chest (>5cm)	1/3 chest (5cm)	1/3 chest (4cm)

Recovery position

Recovery position is the preferred safety position for any patient who is unconscious and breathing spontaneously, for example after a seizure or intoxication. It helps prevent airway obstruction and aspiration (inhalation) of stomach contents. It is also used when a patient must be left alone in a single-rescuer situation. The description below uses leverage to turn patients and is useful even when the patient is larger than the rescuer. When possible however, use additional helpers to reduce the effort needed.

- Ensure the patient is in a safe location.
- Kneel beside the patient, extending their near arm at a right angle to their body. Place opposite arm across their chest.
- Bend the patient's right knee to 90 degrees, holding the knee in one hand and their wrist or shoulder with the other. Pull them towards you, rolling them onto their side.
- Keep their knee bent to stabilise them in the recovery position.
- Carefully position their head so their mouth is positioned slightly downward, so any secretions will freely drain onto the ground under gravity. Positioning their hand under their face may help maintain proper head position.
- Ensure their airway is not obstructed and that they are breathing freely.

Drowning

Knowledge required when drowning occurs

Worldwide, there are an estimated 236,000 deaths a year due to drowning, making it the world's third leading killer due to unintentional injuries, behind falls and motor vehicle accidents.

Drowning affects all New Zealanders irrespective of age, ethnicity, gender or socio-economic status. In New Zealand, approximately 80 people a year die in drownings, with half of those at beaches and rivers. Almost 90% of the patients are male, and most die due to unintentional immersion incidents while swimming, boating, diving or off shore activities. It is consistently the third highest cause of unintentional death in New Zealand, surpassed only by road vehicle crashes and accidental falls.

Drowning is officially defined as "the process of experiencing respiratory impairment from submersion/immersion in liquid".

Terms like 'dry drowning' or 'near drowning' are medically inaccurate and should not be used. There are only two terms a surf lifeguard should use; 'non-fatal drowning' or 'fatal drowning'.

How does drowning happen?

- When water enters the airway it triggers coughing. The patient may try to hold their breath to prevent further water entry, or the muscles of the voice box (larnyx) may spasm and close on their own to prevent the entry of more water.
- Both reflexes eventually end, and water is breathed (or aspirated) into the lungs. Breathing in as little as 50-250mls of water washes away the lung's surfactant layer, a soap-like bubbly film that holds the air sacs open. When these air sacs collapse, the lungs lose their ability to put fresh oxygen into the blood.
- Whatever oxygen is in the blood is quickly used up, and oxygen levels drop as the heart races under an adrenaline surge.
- Within a minute the patient usually loses consciousness due to low blood oxygen levels (hypoxia), and further breathing attempts stop. This is respiratory arrest.
- After five minutes, brain injury is usually permanent.
- After ten minutes, death is the likely outcome.

How does the heart react?

- The heart is much more resistant to a lack of oxygen than the fragile brain, but after ten minutes, it is beating so slowly and irregularly that there is no more pulse or blood pressure.
- Circulation has now stopped.
- Eventually the heart may quiver, or fibrillate. During this time, shocks from a defibrillator (AED) may be able to restart the heart.
- Rescue breathing (ventilations) could put air into the lungs, and chest compressions could circulate that oxygen throughout the body, in a best-case scenario.
- If untreated, the heart develops an unshockable rhythm, and eventually stops all electrical activity usually within twenty minutes.
- At this point, in almost every case, even with the best CPR, the patient's heart will not regain an output, they will have had a fatal drowning.

While there are extremely rare exceptions (usually small children who've fallen into near-freezing water), the vast majority do not survive submersion for longer than 5 minutes. Of course we don't know who will survive ahead of time, so we give every patient the best chance possible to survive through effective and quick CPR.

What should a surf lifeguard do in a drowning situation?

The focus is on getting to the patient and starting rescue breathing (ventilations) within the first few minutes of submersion.

If they've stopped breathing, but their heart is still beating (respiratory arrest) their chance of survival is very much higher than if they go on to develop cardiac arrest.

Getting to them quickly with early ventilations and CPR is critical.

Sudden cardiac arrest vs. drowning

Major differences exist between sudden cardiac arrest and arrests due to drowning. 'Compression-only' or 'hands-only' CPR, which uses chest compressions without any breathing (ventilations), has no role in the resuscitation of drowned patients.

Defibrillation has less of a role than in sudden cardiac arrest. Fewer than 10% of drowned patients will have a shockable rhythm. While 'time to defibrillation' is what matters most in sudden cardiac arrest, 'time to first breath' is what matters most in drowning.

'Sudden cardiac arrest' is typically due to an arrhythmia which causes the heart to suddenly stop beating, leaving the bloodstream full of oxygenated blood. Immediate chest compressions circulate that blood to the brain and heart, buying precious minutes for defibrillation to work.

In almost all other forms of cardiac arrest, the heart stops due to a lack of oxygen (rather than a sudden arrhythmia), and there is little or no oxygenated blood left to circulate. The chance of survival with these types of arrests is very low, even with good CPR. The goal of resuscitation therefore, is to catch patients in the approximately 5-10 minute window where their heart and brain dysfunction can be successfully reversed.

The recommendation is to start chest compressions and ventilations on any patient who is unresponsive and not breathing normally, and to get an AED on the patient as quickly as possible.

First aid

Knowledge and skills required to perform first aid

Shock

Shock is the poor circulation of oxygenated blood to the body, especially to vital organs such as the brain, kidneys and heart. This often results from extremely low blood pressure and can lead to organ failure and cardiac arrest.

This is completely different to the non-medical use of the word 'shock', referring to severe emotional upset. Please use the term 'shock' only to describe a patient with a potentially life-threatening illness.

Causes

- Blood loss due to trauma.
- Hypoxia (lack of oxygen) due to drowning.
- Life-threatening allergic reaction.
- Massive heart attack.
- Serious medication or drug overdose.
- Severe hypothermia (cold) or heat stroke.

Signs and symptoms

- The patient feels sick, sweaty, faint or light headed, is confused or unconscious.
- Pale, cool, or clammy skin, rapid heart rate, weak pulse, and low blood pressure.

Treatment

- Call an ambulance early if shock is suspected. Make sure that the 111 operator understands the severity of the situation. **Shock is a time-critical emergency.**
- The primary goals of the surf lifeguard are to identify when shock is occurring and clearly communicate the need for immediate medical assistance to the 111 operator. Treatment should begin immediately while urgent transport is being arranged.
- Lie the patient down.
- Keep them warm, comfortable and calm.
- Recheck DRSABCD frequently.
- Reassure the patient by talking to them.
- Help a trained surf lifeguard administer oxygen.
- Identify and provide specific care for causes of shock such as massive bleeding or anaphylaxis.
- Do not give food or fluids to the patient.
- Be prepared to perform CPR if the patient becomes unresponsive and is not breathing normally.

Trauma

Bleeding (haemorrhage)

Causes

Most bleeding is from minor external wounds such as:

- Lacerations.
- Skin tears.
- Abrasions, and requires nothing more than a dressing.

More serious blood loss can occur from deep wounds, or from hidden internal injuries.

Massive or ongoing bleeding may lead to shock, loss of consciousness, or death if not controlled.

Surf lifeguards should always wear gloves when dealing with patient's blood. If the patient's blood contacts the surf lifeguards, wash with soap and water as soon as possible. If the patient's blood gets into contact with the surf lifeguard's eyes, nose, mouth, or any open wounds, seek medical advice.

External bleeding

Mild-to-moderate bleeding

- Ask patient to lie down, this helps prevent an unexpected faint.
- Wear gloves and remove small or unembedded objects from the wound with fingers or tweezers if you can do so safely.
- Using the patient's clothing, a towel, or a dressing to avoid cutting yourself, apply firm, direct pressure with your fingers or your hand on the bleeding wound.
- Dress and bandage the wound once the bleeding has stopped.
- What to do if bleeding has soaked through the bandage:
  - Remove all the dressings and reapply firm, direct, prolonged pressure directly onto the wound until the bleeding has stopped.

- Then reapply a dressing.
- **Never apply a tighter dressing, or more dressings, to stop bleeding, use firm direct pressure.**
- Use firm, direct finger/hand pressure to stop uncontrolled or significant bleeding.

The solution to uncontrolled bleeding is not placing more dressings and bandages, it is firm, direct pressure directly upon bleeding site until control is achieved.

Treatment

- Treat any significant external bleeding with firm, direct pressure to the bleeding site. Manage any airway issues, and be prepared to start CPR if the patient becomes unresponsive and is not able to breathe normally. Call an ambulance for all patients with serious chest or abdominal injuries.
- Keep the patient in the position they find most comfortable. Do not ever force any patient to lie down if they feel they can breathe better sitting up. If the patient is unconscious but breathing adequately, place them in the recovery position. Reassess DRSABCD frequently.

Embedded objects

- Leave large or deeply embedded objects in place and place padding around them, as removal can cause unmanageable bleeding.

Nosebleed

- Have the patient lean forward and pinch the entire soft part of the nose firmly shut. Bleeding control may require pressure to be maintained for 20 minutes or more.

Simple abrasions (scrapes) or lacerations (cuts)

- Have the patient place their wound under a running cool tap for five minutes to help reduce the risk of infection. Tap water is adequate and sterile fluid is unnecessary. Dry and apply a simple dressing.

Open skin wounds

- Patients with open skin wounds such as lacerations and puncture wounds should be referred to their GP for a wound check and to assess their need for a tetanus immunisation.

Major bleeding

Treatment

- If blood is spurting, or pouring out, quickly use the patient's clothing or a towel to protect yourself from blood exposure.
- Lie the patient down and immediately apply heavy, direct, prolonged pressure to the site of bleeding.
- Hold constant pressure until ambulance officers arrive.
- Keep the patient lying down, calm, and still.
- Recheck DRSABCD frequently and ask helpers to prepare personal protective equipment, tourniquet and oxygen equipment for use by trained surf lifeguards.

Seek immediate medical assistance for bleeding, major bleeding, mild bleeding persisting beyond 20 minutes, or if the patient has any signs or symptoms of shock.

Internal bleeding

Internal bleeding is easy to miss, and can be deadly. Consider internal bleeding in any patient who may have had a significant blunt trauma (such as a fall from height or any motor vehicle injury), or any penetrating injury. Look for bruises, broken bones, swelling or tenderness, trouble breathing, abdominal pain, loss of consciousness, or signs/symptoms of shock.

Treatment

- Call an ambulance early if internal bleeding is suspected.
- Lie the patient flat, keep them warm and calm.
- Reassess DRSABCD frequently, until someone with more advanced training can take over care.

Fractures

A fracture is a broken bone. Fractures that are minor can be followed up by the patient's GP within a day. Serious fractures will need urgent medical attention, call 111.

Signs and symptoms of serious fractures

- Fractures that have concerning signs, like bleeding, numbness, colour change or shock.
- Open fractures where the bone has punctured the skin.
- Fracture-dislocations where there is usually severe pain and deformity at a joint.
- Any fracture that is severely painful even without movement.
- Any fracture to the skull, face, spine, pelvis or thigh.

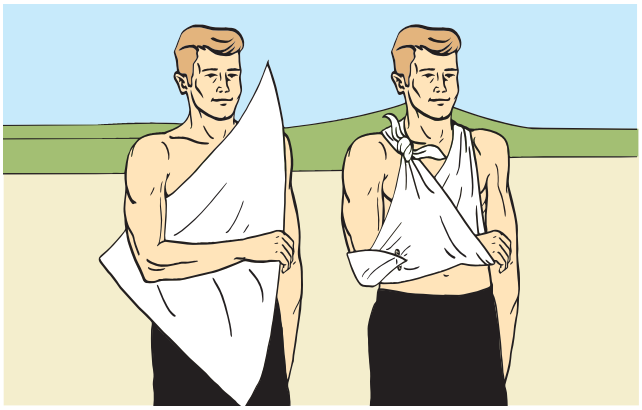
Treatment

- Keep the patient lying down, or in a position of greatest patient comfort.
- Call an ambulance.
- Watch for signs of shock.
- Control bleeding if required.

If they must be moved for their safety, immobilise the fracture with manual stabilisation, which means multiple people holding the body part in a comfortable stable position while the patient is moved.

Use available resources to splint fractures, such as towels, pillows, and cardboard splints.

Dislocations



A dislocation occurs when a joint is damaged by being forced to move beyond its normal range of motion and a bone moves out place.

Signs and symptoms

- Joint pain.
- Deformity.
- Loss of mobility.
- Pain and discomfort.

Shoulder dislocations are the most common dislocations you will see as a surf lifeguard.

Treatment

- Do not attempt to relocate the dislocation yourself, as outcomes are better if performed by health professionals.
- Support the limb in the position of greatest patient comfort.
- If pain is manageable and the dislocation is not otherwise serious, refer them to the emergency department.
- If the dislocation is serious, with severe pain, a discoloured limb, reduced pulses, or any other associated injuries, call an ambulance.

For comfort, a triangular bandage can be fashioned into a sling. Always check the limb for normal sensation, colour and capillary refill at the fingertips.

Sprains & strains

Sprains are ligament tears caused by a joint being stressed beyond its limits, often due to sudden twisting movements. Knee and ankle sprains are common.

Sprains range from mild injuries to complete ligament tears requiring surgery.

Strains are injuries to the muscles or tendons, often from chronic overuse or sudden overloading. Bruises, usually caused by a blunt trauma that causes capillaries to burst, leading to pain and swelling.

The goal of first aid for minor musculoskeletal injuries is to prevent further injury, and to reduce pain. Medical evidence regarding optimal treatment is limited. It is reasonable to recommend **RICED** initially:

Treatment

R **Rest.** No further competition or strain for two days. Return to range of motion exercise if symptoms decrease after two days.

I **Ice.** Use ice/cold pack wrapped in cloth: Apply for 10 minutes at a time, repeated once.

C **Compression.** Use a crepe bandage applied comfortably (never tight or constricting).

E **Elevation.** Raise the limb above the level of the heart to temporarily decrease swelling.

D **Diagnosis.** Recommend the patient see a physiotherapist or their GP for an assessment and diagnosis.

If there are signs of moderate injury, such as an inability to weight bear, a same-day GP, physiotherapist or medical centre review should be encouraged.

Head injuries

Head injuries are very difficult to manage in the first aid setting because many mild brain injuries are easily missed. Some concussions that seem minor at first may result in long-term problems with concentration, mood and performance in all areas of life. The goal is to recognise and manage severe brain injuries quickly, while not overlooking minor brain injuries.

Signs and symptoms of serious head injuries

- Loss of consciousness.
- Headache.
- Confusion and disorientation.
- Slurred speech.
- Unsteadiness.
- Blurry vision.
- Nausea or vomiting.

These all require an urgent call for an ambulance, because of the possibility of sudden worsening, seizure, coma or even death.

Sometimes a patient doesn't remember their injury, or is found unconscious. Check for external signs of trauma such as swelling or bruising on the head.

Treatment

If the patient has mild symptoms, they should get checked out by their GP, or medical centre within a day.

If the patient under your care is having symptoms of a serious head injury, they should be referred to their GP, the nearest emergency department, or immediate review by ambulance.

Any patient who has lost consciousness should not drive home; you should help them make alternate arrangements to be escorted by a competent adult for medical assessment. Any patient who has signs of serious head injury as above, must not return to sport until cleared by a doctor.

Chest and abdomen injuries

Chest injuries can range from minor bruises to the chest wall, to major injuries such as a collapsed lung and bleeding into the chest cavity.

Signs and symptoms

- Ongoing bleeding.
- Unequal chest rise with breathing.
- Severe pain.
- Breathing difficulty.
- Any signs of shock.

Abdominal injuries can range from mild bruises to bleeding from the liver and spleen, and bowel perforation.

Signs and symptoms

- Abdominal or back pain.
- Abdominal bruising.
- Nausea.

- Light-headedness.
- Rapid or weak pulse.
- Shortness of breath.
- Loss of consciousness.

Internal bleeding is a serious threat to life. Beware of any injury involving a vehicle or a fall from height. Assess for signs of shock, and call an ambulance for all abdominal injuries that are not clearly minor.

Neck and spinal injuries

Unstable cervical (neck) fractures and spinal cord injuries are very rare, but can occur after a fall from height, diving injury, wave impact or vehicle crash.

Signs and symptoms

Most patients with cervical fractures will have severe neck pain and unwillingness or inability to move their head. Patients with a spinal cord injury will usually show neurological signs or symptoms: numbness or weakness of the arms, legs, or torso; bowel or bladder problems such as incontinence (loss of control); or difficulty breathing. If significant neck or spinal injury is suspected, call an ambulance early.

In all resuscitations, moving the patient to safety and stabilising the airway, breathing and circulation take priority over maintaining cervical spine precautions. Never force a conscious patient to lie flat on their back if doing so will compromise their airway or breathing. The supine position, where a patient is lying flat on their back, places the patient at higher risk of aspiration (breathing in regurgitated stomach contents), which can threaten their airway and breathing.

Recovery position is preferable, with a pillow or towel under the head to maintain neutral cervical spine alignment.

Treatment

Conscious patient: Spinal self-management.

An awake patient can almost always stabilise their own neck. Allow them to self-extricate from a vehicle and walk to safety if they are steady on their feet. Support them if necessary. Let the patient control the movements. Once in a safe location, the patient can lie down on their back, or on their side. If they're on their back, use padding (a 2cm thick folded towel) under their head to keep their neck in a comfortable position. Call an ambulance.

Unconscious patient (or patient unable to maintain their own head position).

Provide manual in-line stabilisation of the cervical spine. While the patient is being moved or resuscitated, hold the patient's head in-line with the neck and torso in a neutral position. Manual in-line stabilisation of the neck can be performed while the patient is on their back, or on their side. Once the movement is completed, use padding (a 2cm thick folded towel if they are supine) under their head to keep their neck in a comfortable position.

Cervical collars (C-collars, rigid collars) **should not** be used. Despite widespread use in the past, there is no evidence showing they actually improve neurological outcomes, and strong evidence they can cause harm. Qualified paramedics may choose to apply rigid c-collars, especially for extrication over uneven surfaces where manual in-line stabilisation cannot be performed.
Surf lifeguards should never apply cervical collars.

Scoop stretchers require less patient movement and are more comfortable than rigid backboards, but all rigid handling devices can cause harm, so their use should be strictly limited to moving the patient. As soon as the movement is complete, the patient should be taken off the scoop stretcher. In a life-threatening emergency where time or conditions do not permit coordinated patient handling, ankle/wrist/blanket drags are acceptable methods of evacuating a patient.

Log roll

If a patient with a strongly suspected spinal injury must be turned, a log roll can be used. The goal is to keep the head, neck, torso, and pelvis aligned. This requires a team of three or more people.

Technique:

- The procedure is explained to the patient.
- The patient's arms are crossed on their chest.
- The first helper assists with manual in-line stabilization of the head and neck with a hand on either side of the patient's head.
- The second helper is at the patient's side, holding the patient's opposite shoulder and thigh.
- The third helper is beside the second, holding the patient's opposite hip and knee. On the first helper's command: "Ready-Brace-Roll", the patient is turned onto their side.
- The person holding the patient's head is always the person that gives the command and controls the movement.
- When the patient is ready to be rolled back the first helper will give the repeat command "Ready-brace-roll", and the patient will be logrolled back into the supine position.

Environmental

Choking

Choking occurs when a small foreign object obstructs the airway.

Signs and symptoms

- Distress.
- Gasping.
- Coughing.
- Wheezing.
- Inability to speak, or placing one's hands over the throat.
- Always consider choking in any patient found unconscious.

Treatment

- Ask the person, "Are you choking?" If he or she can talk, the obstruction is partial.
- Reassure them that you are there to help them, encourage them to stay calm and try coughing repeatedly, while you send a helper to call an ambulance.
- If a patient can cough or breathe effectively, do not give them water, and do not give back blows.
- If the patient can't cough or breathe, deliver:

Back blows

Treatment

- Lean the patient forward and support his or her chest with one hand.
- Give up to five hard blows between the shoulder blades with the heel of your other hand, with a goal of dislodging the object with each blow.
- Do not be afraid to use significant force; the patient's life may depend on the back blows being effective.
- Check whether the object has been expelled between each blow.

Chest thrusts

If back blows are unsuccessful the surf lifeguard should give five hard chest thrusts.

- Stand behind the patient, with your arms around their chest, hugging them close to your body.
- Place one fist against the lower half of their sternum (breastbone), in the same location as CPR is performed, and hold that fist tightly with your other hand.
- Make a sharp, forceful inward thrust, compressing the chest.

The goal is to raise chest pressure enough to dislodge the foreign body.

The Heimlich manoeuver, which involves thrust delivered to the abdomen, can injure the liver and other abdominal organs, and is never recommended.

Continue alternating 5 back blows with 5 chest thrusts until the obstruction is relieved or the patient becomes unresponsive.

If the patient becomes unresponsive and is not breathing normally, begin CPR.

Infant choking

- Lie the infant face down on your lap, or cradle them face-down on your forearm with their head supported in your hand.
- Be sure not to block the airway.
- With the heel of your hand, give up to five very firm back blows between the infant's shoulder blades.
- If object is not expelled, turn the infant over on your lap and perform up to five chest thrusts. Repeat, alternating five back blows and five chest thrusts, until the obstruction clears or the infant becomes unconscious.
- If the infant becomes unconscious, place them on a firm surface and begin CPR.

Anaphylaxis (severe allergic reaction)

Anaphylaxis is a severe allergic reaction that is potentially life-threatening, usually involving tongue, face or throat swelling, trouble breathing, or low blood pressure. It can result in shock, respiratory arrest (which is when breathing stops), or death. It usually occurs in people with a history of severe allergic reactions, but it can happen to anyone. Patients are sometimes hesitant to self-inject adrenaline, which is the only effective treatment for anaphylaxis.

Signs and symptoms

- Tongue swelling, face swelling, throat tightness.
- Trouble breathing, wheeze.
- Lightheadedness, dizziness, loss of consciousness.
- Vomiting, diarrhoea, abdominal pain.
- Widespread rash/hives.

Consider anaphylaxis in any patient found with an unexplained collapse. Check for a medical alert bracelet/necklace, or a rash.

Treatment

- Call an ambulance as soon as you suspect anaphylaxis as patients can deteriorate rapidly.
- Have the patient lie flat or sit down. Remove bee stingers or other obvious causes of anaphylaxis.
- If you think the patient is having anaphylaxis, help the patient use their Epi-pen (adrenaline auto-injector) per its labelled instructions. Recheck DRSABCD. Help a suitably qualified surf lifeguard administer oxygen to the patient. Monitor for signs of shock and treat as necessary. Always call an ambulance if a patient has used an Epipen, as multiple doses are sometimes necessary. If adrenaline has been used, or you have no adrenaline available, and the patient is still having trouble breathing, give 6 puffs from a salbutamol inhaler every 6 minutes if available, while waiting for the ambulance. If the patient becomes unresponsive, begin CPR.

Stings and bites

Jellyfish

New Zealand's most common jellyfish are nuisances rather than threats. The bluebottle (Portuguese-man-o-war, physalia physalis) and lion's mane jellyfish are common.

Stings are not serious unless the patient has an allergy to jellyfish stings. Scientific evidence is limited, but the best evidence to date suggests treatment as below.

Treatment

- Pluck tentacles off immediately using your fingers. Gloves should be used if available, even though most jellyfish are incapable of stinging through the thicker skin of the fingertips.
- Flush the sting area with water to assist with tentacle removal.
- Pick off any remaining tentacles with fingers or tweezers.
- Find a suitably trained senior lifeguard to help the patient soak the sting site in 45°C water, or as hot as tolerable, for 20 minutes. Beware you do not cause burns in children/elderly patients.
- Manage any allergic symptoms, if they occur.

Stingrays

People usually get stung in the lower leg after stepping on a stingray. Stingray spines are barbed, have a tendency to break off, and are covered in a mucus that causes severe pain and sometimes an infection.

Treatment

- Soaking the affected limb in a basin of 45°C water, or as hot as tolerable, for 30-60 minutes.

Beware you do not cause burns in children/elderly patients. Patients should be referred to their GP for further care.

Bees, wasps, spiders

Bee stings, wasp stings, and spider bites (including Katipo, redback, and whitetail spiders) are typically minor unless the patient develops anaphylaxis, a severe allergic reaction.

Treatment

- Remove any stingers and venom sacs immediately with your fingers, taking care not to get stung.
- Consider pain relief and cool packs (never apply ice directly to bare skin).

If serious allergic symptoms occur, or there are symptoms beyond pain at the bite/sting site, call an ambulance and manage as described in the anaphylaxis guideline.

Animal bites

Treatment

Wash with soap and water immediately, rinse under a tap for 10 minutes, apply bandage and dressing, consider pain relief.

Patients with minor bites can follow up with their GP.

Bites that are deep, are associated with other symptoms such as ongoing bleeding or numbness, should be transported for immediate medical care.

Burns

A burn is the damage caused to skin or deeper structures by fire, hot water, chemicals, electricity or even extreme cold. Skin damage keeps going on even after the source of heat is removed. It is essential to get the skin water-cooled as soon as possible. **Stop, cool, cover.**

Fire

Have the patient stop, drop, and roll. Extinguish flames with a cloth or coat. Remove clothing.

Immediately place under cool running water for 20 minutes. Infants, children, and the elderly are susceptible to hypothermia from cooling techniques. Keep unaffected partsof the patient's body covered and warm, if possible.

Cover with plastic cling film, or burn gel dressing. Keep dressings very loose, so blood flow isn't restricted as tissues swell.

Do not break blisters, apply ointments, or remove any bitumen or plastic melted on the skin.

Minor burns: such as sunburn, have redness or minimal blistering, and can be referred to a GP clinic for a wound check in 2-3 days.

Major burns: call an ambulance for any burns that are:

- Involving the airway, face, eyes, hands, feet or groin. Associated with smoke inhalation, coughing, or trouble breathing.
- Caused by chemicals, or electricity.
- Deeper than a sunburn, or where the skin is white, grey, black/charred, grey, or where the skin is peeling off in sheets.
- Accompanied by decreased sensation, or capillary refill longer than 2 seconds.
- Occurring in infants, children or elderly patients. Covering a surface larger than half the patient's arm.

Electrical burns

Check for danger to rescuers first! Do not go onto any scene that may involve a fallen electrical wire, or where there is a risk of electrocution, until the area is made safe by electrical utility workers. Once the scene is made safe, assess DRSABCD. All electrocutions will require an ambulance.

Chemical burns

Wear gloves and avoid direct contact with your own skin. Quickly remove all contaminated clothing. Shower or hose the patient off for 20 minutes; beware of hypothermia in children and elderly.

If the eyes are involved with a chemical exposure, treat as a foreign body in the eye.

Eye injuries

If the eyes are exposed to a foreign body (chemicals, sand or dust), help the patient flood their eyes copiously with water under a tap, hose or shower for 20 minutes, including under the eyelids. Saline is acceptable if tap water is unavailable. Prevent rubbing the affected eye.

If vision is reduced, or there is an embedded foreign body in the eye, or ongoing pain despite 20 minutes of irrigation, place a dressing over the eye.

Have the patient keep both eyes closed, and arrange for their transport to immediate medical care, calling an ambulance if necessary.

Sunburn

New Zealand has the second-highest skin cancer rate in the world. Surf lifeguards are at high risk, and should speak up when they notice others performing unsafe behaviours. Children and teens are especially prone to sunburn damage, with even a single blistering sunburn in childhood predisposing them to potentially life-threatening melanoma later in life. Fair skinned or light-haired individuals are at markedly greater skin cancer risk overall than people with a naturally darker complexion.

Advise people about the effectiveness of sun protection. The following list is roughly in order of effectiveness, from most to least effective:

- Avoid sun exposures between 10am and 4pm. Get under shade whenever possible.
- Wear long sleeve shirts with collars, and full-brimmed hats (never caps).
- Use long-sleeve rash guards in the water. Use wetsuits and brimmed surf/water hats whenever possible.
- Use sunblock containing zinc or magnesium copiously, and reapply every 2 hours, and after swimming/sweating. Use in large amounts (30ml to cover the body).

Sunburn can be treated with a cool shower and a variety of over-the-counter topical remedies. Check sunburned patients for dehydration and heatstroke. (See relevant sections below.) Encourage rehydration and shade.

Heat stroke

Heat stroke is when a patient is confused, disoriented, unconscious, has a seizure, or other neurological dysfunction due to a high body temperature, usually over 40 degrees.

Signs and symptoms

Skin changes are unreliable, and patients can be hot and dry (more common) or hot and moist (less common). What matters is that their brain is not working normally anymore. The risk of death with heat stroke, even with treatment, is over 10%. Infants, the elderly, and intoxicated patients are at greatest risk.

Treatment

- If you suspect heat stroke, call an ambulance immediately.
- Heat stroke is a form of shock. Get the patient into a cool, shaded location.
- Have the patient lie down under a cool shower, hose or tap if possible.
- Remove any excess clothing.
- Have them drink water only if they are fully alert. Continue cooling them under running water. If running water is not available, keep wetting their bare skin and direct a fan on them.
- Beware over-cooling infants and children.
- The patient may have a seizure or a cardiac arrest, so be prepared to apply the DRSABCD action plan.

Heat exhaustion

Heat exhaustion is generally caused by physical activities in a hot humid environment. Skin changes are unreliable.

Signs and symptoms

- Patients may be hot and sweaty (more common) or hot and dry (less common).
- Pale or flushed skin.
- Rapid but weak pulse.
- They will feel weak and lightheaded.

These are early signs of shock.

Treatment

- If you suspect heat exhaustion, call an ambulance immediately.
- Have the patient lie down under a cool shower, hose or tap if available.
- Have them undress while helping them maintain their privacy.
- If they are alert, have them drink water.
- Continue cooling them under cool running water.
- If running water is not available, keep wetting their bare skin and direct a fan on them. Recheck DRSABCD frequently.

Hypothermia (cold exposure)

Hypothermia occurs when the core body temperature drops. Even on a relatively warm day, it is easy to become hypothermic with prolonged immersion or exposure to water and wind. Children, the elderly and intoxicated patients are at especially high risk of developing hypothermia.

Signs and Symptoms

- Feeling cold and shivering.
- Blue-tinged fingertips and lips.
- Followed by weakness, incoordination.
- Confusion.
- Slow/weak pulse.
- Loss of consciousness, and progressively in extreme cases, even death.

Treatment

- Mild hypothermia (no confusion, stable patient):
  - have them sit or lie down, supported and continuously observed, under a warm shower. If that's not possible, remove wet clothing, dry them thoroughly and wrap them in warm blankets. Call an ambulance for anything more than mild symptoms.
- Severe hypothermia (confusion or signs of shock):
  - call an ambulance, lie the patient down on a padded/insulated surface, remove all clothing, dry them, and use warm (not hot) packs wrapped in cloth and warm blankets. They will require medical care. Recheck DRSABCD frequently. If the patient becomes unresponsive and is not breathing normally, they will require CPR.
- It should be noted that most patients who die of cold-water immersion do not die from hypothermia. It takes a relatively long time for the core body temperature to drop significantly. They die from cold-water incapacitation and drowning, which is largely preventable with the use of lifejackets.
- Immersion deaths can occur within minutes due to involuntary gasping, hyperventilation, panic, aspiration, (breathing water into the lungs), and an inability to move/swim as the muscles and nerves in the limbs lose function due to the cold.
- Surf lifeguards can help prevent drownings by encouraging all boaties to wear their lifejackets whenever they're on board a boat, in case of an unexpected fall overboard. It's not a legal requirement, but we know lifejackets are lifesavers, when they're worn.

Medical

Chest pain and heart attack

Heart attacks are the most common cause of death in New Zealand. Five percent of New Zealanders have known heart disease, often related to smoking, obesity, diabetes, or high blood pressure. Many more remain undiagnosed. They are all at risk for a heart attack, which occurs when there is a sudden blockage of blood flow to part of the heart muscle, causing that part of the muscle to become injured or die.

Signs and symptoms

Heart attacks may cause crushing chest pain radiating to the arm or jaw or be associated with exertion, but in many people, including women and the elderly, there may be only nausea, 'indigestion', shortness of breath, lightheadedness, or sweating/clamminess.

In the first aid setting, there is no reliable way to tell the difference between serious and non-serious chest pain. Call an ambulance for all ongoing chest pain.

Heart attacks can also cause symptoms of palpitations (an irregular heartbeat), fainting spells, or even a sudden collapse.

Treatment

- Have the patient lie down and rest.
- Call an ambulance and stay with the patient. Keep them calm and comfortable. Have a helper bring an AED to the patient's side, so it is ready in case the patient becomes unresponsive. Be prepared to do CPR if necessary.
- Reassess the patient frequently.
- If the patient does not have an aspirin allergy, have the patient chew and swallow a 300mg aspirin. [Note: Medications may only be administered by surf lifeguards who hold Advanced Surf First Aid and Pain Relief Module]. In a heart attack, aspirin can be lifesaving.
- Bring oxygen to the patient's bedside. It should never be given routinely for a heart attack, but in the case of cardiac arrest, a first responder may need ready access to a bag-valve-mask with 10-15L/min of oxygen flow.
- Cardiac arrest must be considered in all patients who have been discovered unconscious and not breathing, even those found 'drowned' in the water. Get an AED on these patients promptly.

Asthma attack

Asthma is a common lung disease, affecting one in ten people. Asthma attacks may be triggered by allergies, cold or exercise.

Signs and symptoms

Asthma causes tightening of the airways, which patients notice as:

- Wheeze.
- Trouble breathing.
- Chest tightness.

- In severe cases, patients can become blue around the lips.
- Panicked and unable to speak or breathe.
- They may lose consciousness.

Treatment

- Assist the patient take six puffs of their **salbutamol (Ventolin, 'blue' inhaler)** every six minutes until their breathing improves. Keep the patient sitting up if possible.
- Be calm and reassuring. If the patient has a plastic spacer that attaches to the inhaler, use it, as it increases the effectiveness of the inhaler.
- Unless it is a mild case, call an ambulance early for assistance, in case things get worse.
- If the patient's asthma attack is severe, keep giving the inhaler as you wait for an ambulance to arrive.
- If the patient becomes unresponsive, begin CPR.
- **Caution:** Patients with a severe asthma attack will almost always have a clear prior history of asthma. If this is a first episode of wheezing or collapse, consider a cause other than asthma, such as anaphylaxis.

Seizure

Seizures, or 'fits', typically involve a sudden loss of consciousness, with violent jerking of the arms and legs, strained breathing and abnormal posturing of the torso and neck. There is no eye contact or talking. Jerking movements usually last less than 30 seconds, followed by complete limpness and a deep sleep-like state. Patients usually regain alertness gradually over 5-30 minutes.

Epilepsy, which affects 1% of the population, is a common cause of seizures. However, seizures can occur for a variety of other reasons, including serious brain injury, drug overdose or alcohol withdrawal. Sometimes seizures can be prolonged, or cause a patient to stop breathing. It is safest to treat all seizures as serious emergencies. Call an ambulance for all seizures.

If a seizure happens in the water, it is always life-threatening. The patient will need immediate rescue, and their airway kept out of the water as much as possible. For safety, people with seizure disorders should always notify the on-duty surf lifeguard, and swim with a buddy capable of helping them in an emergency.

Treatment

- Protect the patient from injury during the jerking period of the seizure. **Move hazards away from them**. Do not try to restrain or move the patient. Never put anything in their mouth. Stay with the patient.
- Call for an ambulance.
- Monitor duration of seizure and obtain previous medical history if possible, e.g. from family members, medical bracelets.
- After the seizure ends, roll the patient into recovery position, open and clear the airway.
- Allow the patient to rest, keeping them warm and comfortable.
- If the seizure lasts longer than 5 minutes, help an advanced lifeguard administer oxygen.
- If the patient doesn't wake up within 10 minutes, has intermittent seizures, or their breathing continues to be poor, administer oxygen and forward that information to the ambulance.
- If a suitably trained lifeguard is available, have them check a blood glucose level.
- A patient who has had a seizure and has recovered should not drive. Help them arrange transport to medical care if possible, while being monitored by a responsible adult/ caregiver. If not possible, call an ambulance, or seek further medical advice.

Overdose/ intoxication/ loss of consciousness

Alcohol and drug use can be associated with many of the types of the injuries a first aider might encounter: motor vehicle crashes, falls, boating accidents, and drownings. Alcohol intoxication is also the most common overdose a surf lifeguard is likely to treat. Knowing how to recognise and treat alcohol and other drug-related illnesses is a useful skill both on the beach and in the community.

Signs and symptoms

- Unsteadiness.
- Sleepiness.
- Slurred speech.
- Agitation.
- Hallucination.
- Vomiting.
- Airway compromise/difficulty breathing.
- Aspiration (breathing in vomit), shock.
- Loss of consciousness, coma.

Symptoms vary widely based on the substance, and dose.

Treatment

- If the patient is unconscious and not breathing normally, begin CPR and have a helper call 111.
- If the patient is unresponsive but breathing normally, place them in recovery position with an open airway, call for an ambulance and stay with them.
- If the patient is agitated, aggressive, or violent, move away from the patient, call 111 for police and ambulance, and observe the patient from a safe distance until the scene is made safe.
- If it is safe to do so, ask about the substance taken, when it was taken and in what quantity.
- Do not induce vomiting in any patient.
- Never assume an unresponsive patient is intoxicated. A patient may appear drunk (or even smell of alcohol), and also have a brain injury, seizure or low blood sugar (diabetes). Call 111 for an ambulance, check for a medical bracelet and recheck DRSABCD frequently.

Stroke

Strokes are the second most common cause of death in New Zealand. They occur when a blood vessel in the brain suddenly becomes blocked or a rupture of a blood vessel causes bleeding in the brain.

Signs and symptoms

The patient may develop weakness on one side, or trouble talking. Assess them using the acronym FAST:

- **F** **Face**: Ask them to smile. Is their face drooping on one side?
- **A** **Arms**: Can they raise both arms?
- **S** **Speech**: Is their speech jumbled, slurred or absent?
- **T** **Time**: If so, call 111 immediately.

Treatment:

- Call 111 immediately. Do not wait to see if symptoms get worse. Have the patient lie down.
- Speak slowly and clearly if they are having trouble understanding you. If vomiting occurs, place the patient on their side, open and clear their airway and monitor their breathing.
- If they become unresponsive, but are breathing normally, place them in recovery position.
- If a suitably trained first responder is available, have them check a blood glucose level.
- If the patient becomes unresponsive, and is not breathing normally, begin CPR.

Human factors

In real life medical emergencies, medical knowledge and technical skills are not enough to guarantee a smooth resuscitation. Human factors have a huge impact on the final outcome of what is a team effort. Leadership, communication and the ability to follow a checklist are some of the key features that separate well-managed emergencies from poorly managed crises.

Leadership: Leadership does not mean the most senior surf lifeguard takes over. A junior surf lifeguard, following an action plan like DRSABCD, can be an excellent team leader if they have communication skills. What is key is that someone quickly steps up, and clearly says to the team, "I will be the team leader." Without a leader, confusion and working at cross purposes is more likely to occur.

Task assignment: Assign roles quickly. Verbally state who will be going for help, who will manage the airway, who will manage breathing and who will perform compressions.

Closed-loop communication: Make eye contact with your team member, use names, and give short, precise instructions: "Tom, start chest compressions." Tom confirms he understood the instruction and closes the loop: "I'm starting chest compressions." This eliminates confusion and reduces errors.

Thinking aloud: Verbalise what you are thinking so that others can anticipate what's needed. "This man's breathing is worsening—we need to focus on reassessing his airway first, then his breathing." If you're doing compressions, loudly say "... 27, 28, 29, 30" so the person delivering ventilations is prepared.

Reassess: When faced with a complex problem, start over at DRSABCD and run through the steps again, systematically. Stay calm.

> **At its most basic, every resuscitation is just an effort to get the blood to go round-and-round', and 'air to go in-and-out'.**

Following a good protocol or checklist ensures the basics aren't missed in an emergency.

Patient history

Use SAMPLE when taking the patient's history:

- **S** **Signs and symptoms**: What symptoms do you have, and when did they begin?
- **A** **Allergies**: Do you have any allergies?
- **M** **Medication**: Do you take any medication?
- **P** **Past medical history**: Do you have any medical problems?
- **L** **Last oral intake**: When was the last time you had anything to eat or drink? What was it?
- **E** **Events leading to the problem**: What caused the problem? What were you doing when it happened?

Handover and documentation

Transition of care / handover

Accurate communication of information to an emergency agency like ambulance is important. The handover of care from a first aider to ambulance staff is a high-risk procedure, with the potential for important information to be lost or misunderstood.

Handover should be concise, allowing for questions/ clarification at the end.

A sample **'IMIST-AMBO'** handover:

- **I** **Identification**: This is Joe, he is a 40-year-old male.
- **M** **Mechanism of injury / medical complaint**: He is having trouble breathing.
- **I** **Injuries / information related to the complaint**: He was rescued from heavy surf 30 minutes ago.
- **S** **Signs and symptoms**: He never lost consciousness, but he's been coughing a lot and he vomited twice.
- **T** **Treatment and trends**: A senior surf lifeguard put him on oxygen, but his shortness-of-breath has been getting worse.
- **A** **Allergies**.
- **M** **Medications**.
- **B** **Background**: He has no allergies, and takes ventolin for his asthma.
- **O** **Other issues**: We are still trying to locate his family on the beach.

A patient report form should be handed over to the ambulance officers.

Documentation

Documentation of first aid incidents is medically and legally important. Notes must be accurate and appropriate for both minor and major first aid incidents, with due respect taken to maintain patient privacy and confidentiality.

Minor first aid is when a stable patient with minimal injuries/ illness is seen, treated, and discharged from care, for further selfcare, or self-referral to a medical provider.

Major first aid is when a patient is seriously injured, ill or unstable; any time an ambulance is called; or whenever a patient is referred for same-day medical care.

Notes

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