

BRONZE MEDALLION

PUA21010 Certificate II in Public Safety (Aquatic Rescue)

SURF AWARENESS & SKILLS

Chapter 2

Learning Outcomes

- Types and formation of waves
- Rip currents, inshore holes and drift currents
- Identify beach types and safe swimming locations
- Assess prevailing weather and beach conditions
- Perform:
 - Leg and arm blocks
 - Escape and release techniques
- Demonstrate surf skills:
 - Negotiate the surf with tube and fins, bodysurfing
 - Paddle a board



Formation of Waves



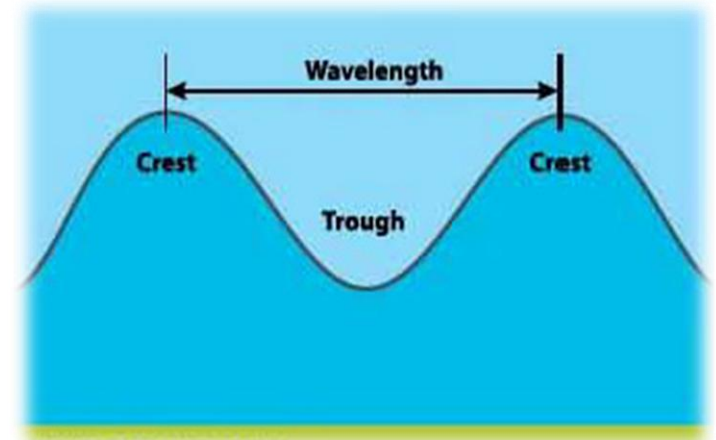
Waves are formed by the wind blowing across the surface of the ocean

Wave size determined by 3 factors:

- Intensity of the wind
- Length of time the wind blows
- Distance the wind blows

“Wave sets”

- Waves arrive at the beach in sets
- Normally there is a lull between sets
- Sets consistent within a given swell

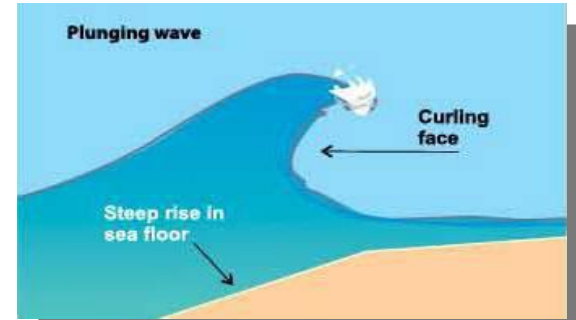


Wave terminology

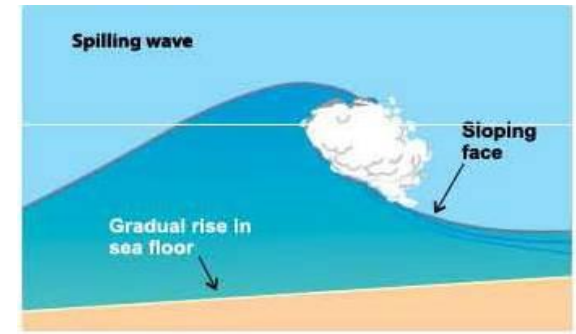
Wave Types



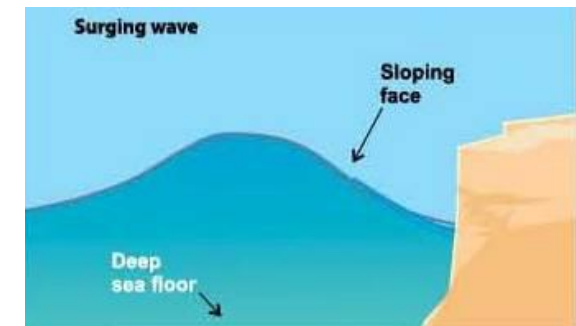
PLUNGING WAVES OR "DUMPERS"



SPILLING WAVES



SURGING WAVES



Identifying Rip Currents.

90% of all rescues are from rips

Recognition

- Discoloured brown water
- Foam extending beyond the break
- Waves breaking further out (both sides)
- Debris floating seaward
- A rippled appearance on the surface



Lifesavers should educate the public about rips at every opportunity to help reduce the drowning rate

Australian for life. 

Types of Rip Currents

PERMANENT

- Last for months/years.
 - headland, pier

FIXED

- Last from hours to months
 - sand based hole or gully

FLASH

- Temporary, caused by large surf build up

TRAVELLING

- Propelled along the beach by strong “side sweeps” or “littoral currents”



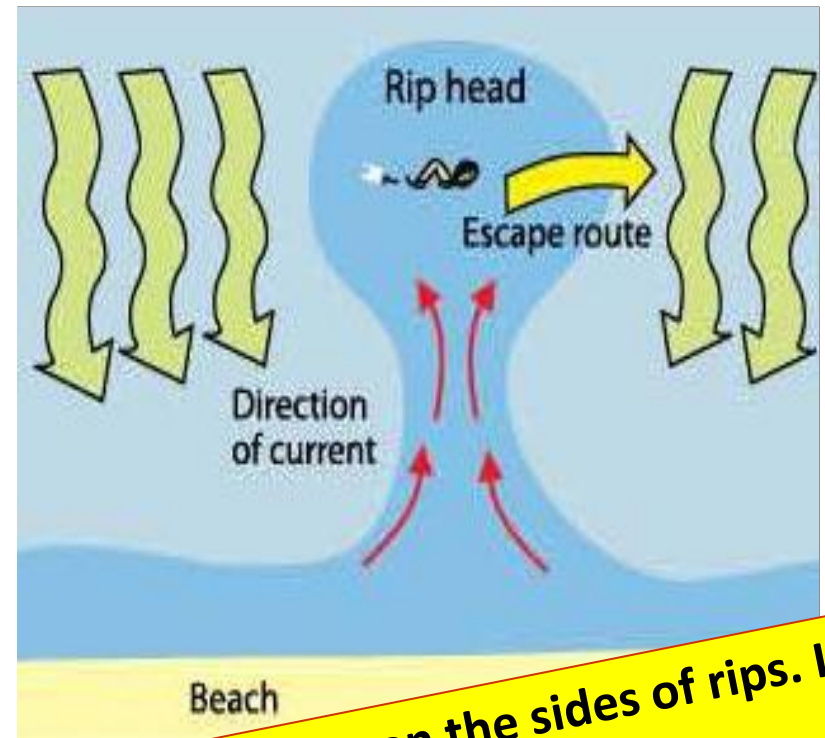
Escaping from Rip Currents

If caught in a rip:

- Do not panic
- Ride the rip out from the beach
- Swim parallel to the shore 30-40 metres in direction of ocean current
- Return to shore when conditions allow

If you cannot escape rip:

- Signal for assistance
- Conserve energy, float on your back



Remember sand bars usually form on the sides of rips. If tired, probe with your feet

Inshore Currents & Holes

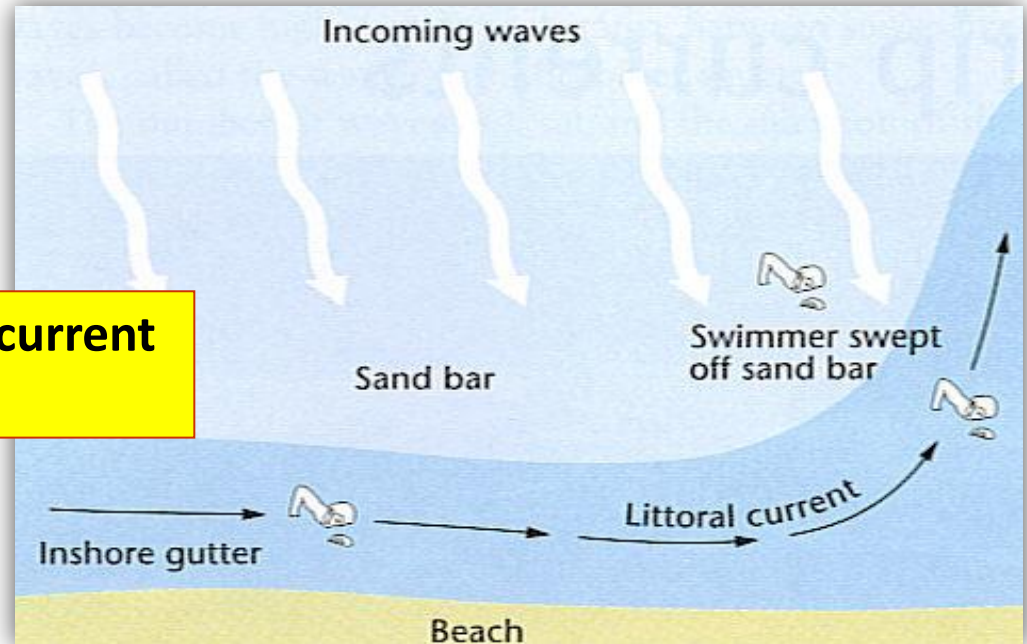
Littoral current (side sweep)

- Range from fast flowing to barely detectable
- May feed into rips and take weaker swimmers out to sea

Inshore holes

- Are a problem for unsuspecting bathers, particularly small children.

Dropping tides will increase the current strength and speed



Beach Types and Hazard Ratings

SAFETY RATINGS

LOW DANGER	Supervision of children and poor swimmers is required.
MODERATE DANGER	The level of safety depends on wave and weather conditions.
HIGH DANGER	Experience of strong surf is required.
Safety ratings will change with rising waves, strong tides and high tide.	



DISSIPATIVE (BROAD SURF ZONE)

HIGH DANGER

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

LONGSHORE TROUGH

MODERATE-HIGH DANGER

- A heavy shore break is common.
- Deep water is found in the trough close to shore.
- Rips and currents occur in the troughs.
- Heavy surf is found on sand bars.
- Waves tend to be heavier and larger.
- It is difficult for swimmers to return to shore.



Beach Types and Hazard Ratings



BAR AND RIP

MODERATE-HIGH DANGER

- Waves can wash swimmers off the edge of the sand bar into rips.
- Swimmers may get caught in rips.
- Supervision of children and poor swimmers is needed.
- Multiple flagged areas may be required.



LOW TIDE TERRACE

LOW-MODERATE DANGER

- At high tide the sand bar may be covered by deep water, with rips and a shore break.
- This beach often has tidal currents which increases the danger.
- Incoming tides may trap unsuspecting swimmers on shallow sand bars.

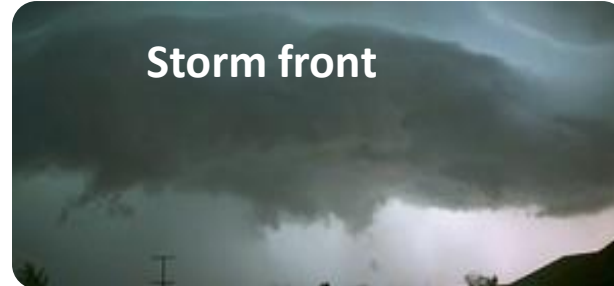


REFLECTIVE

LOW DANGER

- Supervision is needed for children and poor swimmers.
- There is a strong pull down the beach into the water.
- Swimmers and bodysurfers must watch for the shore break.
- There is no sand bar.
- There is deep water close to shore.
- Risk of spinal injuries in higher wave conditions.

Other Prevailing Weather Considerations



Wind and Cloud

- The sky gives clear indications as to changing weather conditions.
- Lifesavers should be aware of the weather forecast affecting their local area

Tides

- 2 high tides in a 24 hr period
- Tidal movement will vary from small to about 7 metres (parts of northern Aust)

Self-Survival Skills

Self survival skills are an important way of minimising danger to the lifesaver. These skills include:

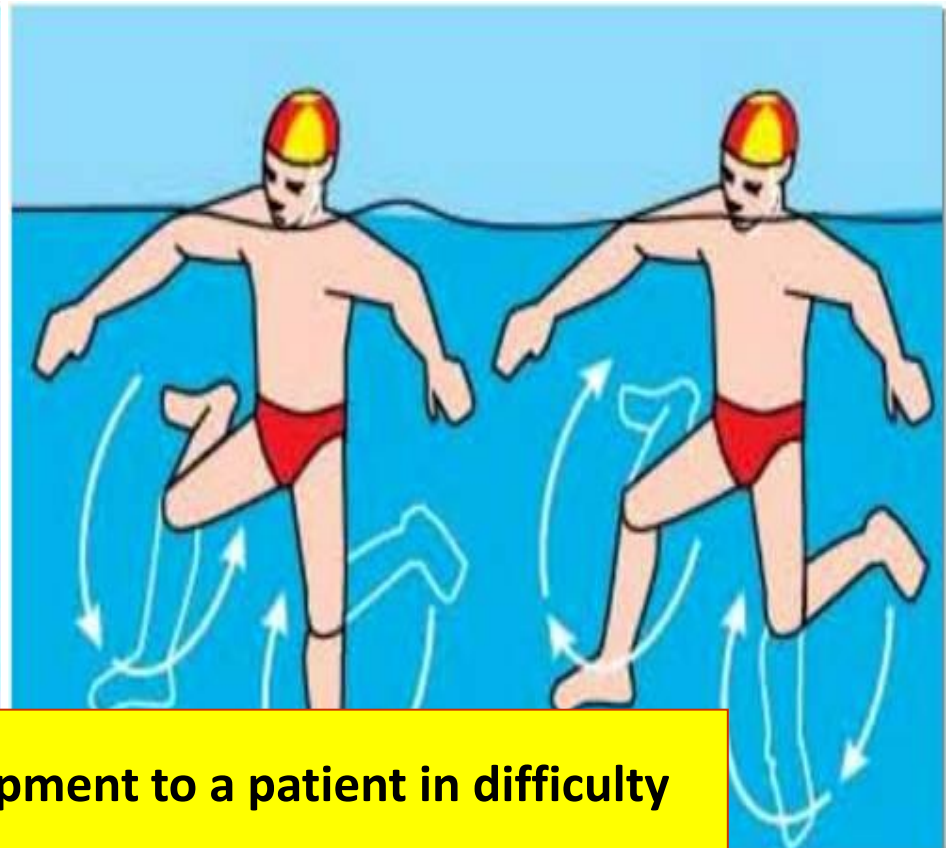
- Your use of rescue equipment
- Floating
- Treading water
- Releases & escapes
 - Front release
 - Rear release
- Dealing with a patient in difficulty

Self-Survival Skills

Floating



Treading water



Always try to take rescue equipment to a patient in difficulty

Self-Survival Skills

Front release and escape



Rear release and escape



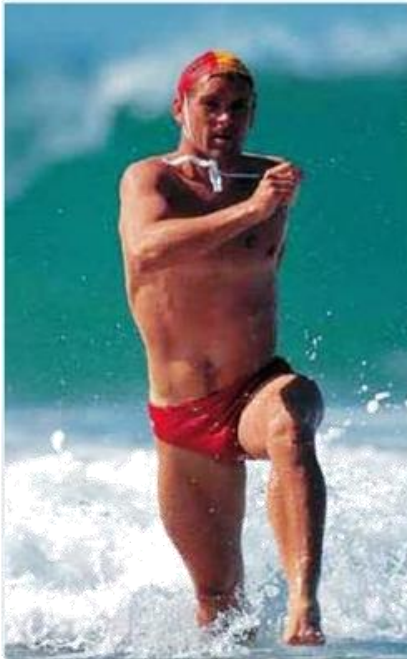
Any person in fear of drowning will not want to go under the water.... This is your key to escape

Surf Skills

Before entry, Study the conditions: Rips, lulls, landmarks.

Entering shallow water

Wading
knees lifted high



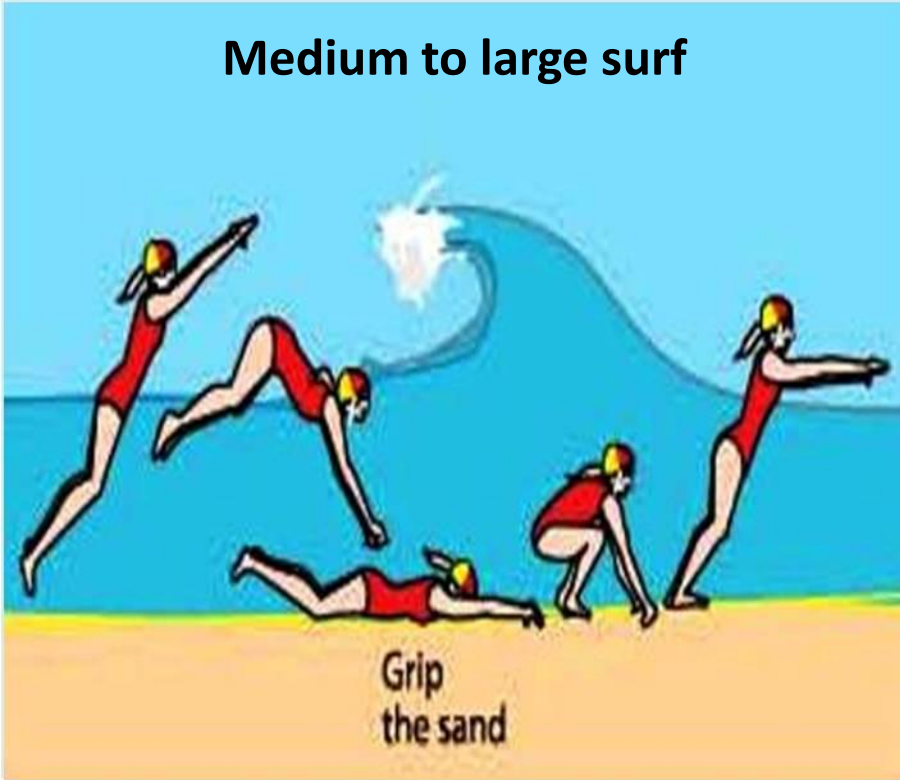
Dolphining
Small broken waves



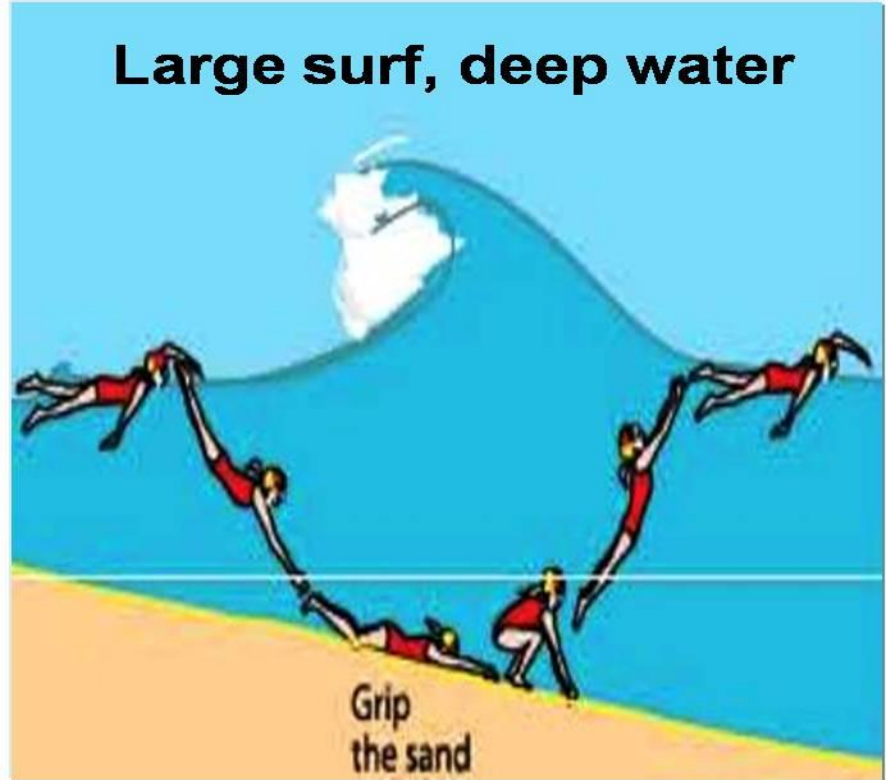
Australian for life. 

Surf Skills(cont)

Medium to large surf



Large surf, deep water

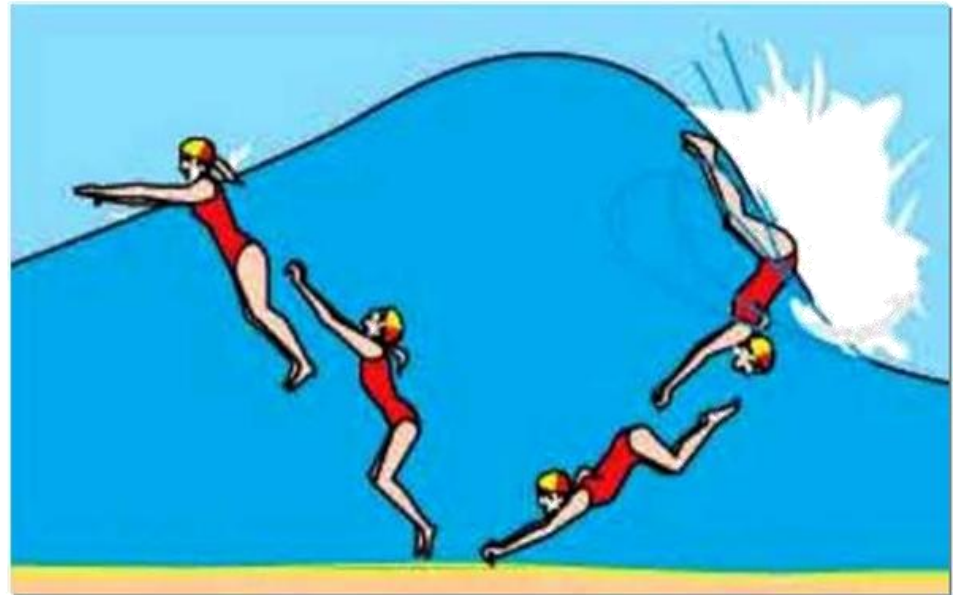


Surf Skills(cont)

Bodysurfing



Pulling out of the wave



Australian for life. 

Rescue Board Skills

Before entry:

Examine the craft and study the conditions

Entering shallow water



Padding techniques

Lying



Kneeling



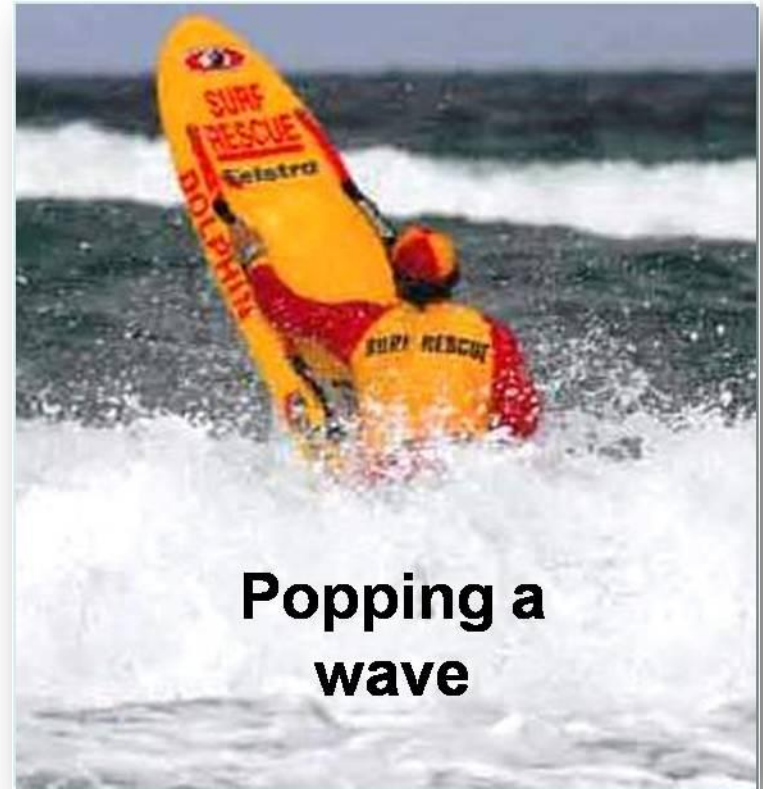
Australian for life.



Rescue Board Skills

Negotiating the Surf Zone

- **3 Techniques**
 - Small wave:
 - Paddle through with speed
 - Lift your upper body off the board
 - Medium wave:
 - Popping the wave
 - Large wave:
 - Rollover technique



Thank you

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