



SOS Fact Sheet

MYTHS

There's a lot of stuff out there about the ocean that just isn't right. So it's time to debunk a few of the best known myths of the ocean!

Myth #1 Watch out for the undertow!

My mother always told me to watch out for the undertow. Only thing is, there isn't one. There is nothing on our surf beaches that will pull you under and hold you there. Luckily, we are buoyant and have a tendency to float! Rip currents are often called undertow, but they don't pull you under, they just take you for a ride out to sea. Generally, most people confuse the strong backwash at the shoreline, usually caused by surging waves, as undertow.

Myth #2 I got caught in a rip tide

There's no such thing as a rip tide! There are rip currents, but no rip tides. This term is very mis-leading. Remember, the tide is a wave that acts over 6-12 hours. Rips flow pretty continuously. The confusion sets in when you realise that rips tend to get stronger at low tide and that tidal currents can be created in small inlet entrance channels.

Myth #3 Every 7th wave is a big wave

While this isn't true, there is an element of truth to this myth. Waves do have a tendency to organise themselves into groups, or sets, of 5-7 large waves. These wave sets can happen at different time intervals depending on how far the waves have travelled and may hit the beach every 5, 10, 15 or 20 minutes or longer. The timing always varies.

Myth #4 The sand bar collapsed!

There is a famous story of a mass rescue at Bondi Beach in 1937 called Black Sunday when 300 people were rescued and 5 people drowned. As the story often goes, swimmers got in trouble when the sand bar collapsed. Well, sandbars don't collapse! What happened was that a wave set hit and the larger waves broke and raised the water levels causing the rip current to increase in speed, or pulse. All the swimmers on the bar were swept into the rip and taken offshore.

Myth #5 King tides

You often hear about how dangerous king tides are and how they can sweep you away. Doesn't happen. Spring tides occur every 14 days around the new and full moon and cause the high tides to be higher and the low tides lower. This is due to the gravity exerted on the ocean by the moon and the sun. King tides are really just larger spring tides when the tide range is higher for a few days. They won't wash you away, but the water will come up higher on the beach!

Myth #6 How do you Measure the Height of a Wave?

Scientists generally use the vertical distance between the top (crest) and bottom (trough) of the waves just before they break to describe the height of a wave. Surfers always underestimate the true height as they look at the back of the wave as it heads to shore and only see half the wave. So when a breaking wave is 2 m high, surfers often say it's only 3 ft (1 m)!

Science of the Surf
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