



# Rip Currents

**CAUTION**  
*if possible*  
**SWIM NEAR A  
LIFEGUARD**

What They Are • The Dangers • How to Escape



## What is a rip current?

Rip currents are channeled currents of water flowing away from shore at surf beaches. They typically extend from near the shoreline, through the surf zone and past the line of breaking waves. (The surf zone is the area between the high tide level on the beach to the seaward side of breaking waves.)



## How do rip currents form?

Rip currents form when waves break near the shoreline, piling up water between the breaking waves and the beach. One of the ways this water returns to sea is to form a rip current, a narrow stream of water moving swiftly away from shore, often perpendicular to the shoreline.



## How big are rip currents?

Rip currents can be as narrow as 10 or 20 feet in width though they may be up to ten times wider. The length of the rip current also varies. Rip currents begin to slow down as they move offshore, beyond the breaking waves, but sometimes extend for hundreds of feet beyond the surf zone.



## How fast are rip currents?

Rip current speeds can vary. Sometimes they are too slow to be considered dangerous. However, under certain wave, tide, and beach shape conditions the speeds can quickly become dangerous. Rip currents have been measured to exceed 5 mph, slower than you can run but faster than you or even an Olympic swimmer can swim.



## Are all rip currents dangerous?

Rip currents are present on many beaches every day of the year, but they are usually too slow to be dangerous to beachgoers. However, under certain wave, tide, and beach shape conditions they can increase to dangerous speeds. The strength and speed of a rip current will likely increase as wave height and wave period increase.



## Are rip currents and undertows different?

Rip currents are not “undertow” or “riptides.” These are obsolete terms. In some areas, people have used the term undertow to describe the combination of being knocked down, pulled out, and submerged due to a lack of swimming ability and/or lack of knowing what to do to escape. This is where the myth formed that a rip current (or “undertow”) pulls you under water. A rip current pulls you out, not under.



## Why do some people use terms like runouts and rip tides when you are calling them rip currents?

These terms, though once commonly used in certain regions or time periods, are now considered to be incorrect. The National Weather Service, Sea Grant, and the USLA are working together to use consistent terminology to provide a clear rip current safety message to the public.



## Where should I look for rip currents?

Rip currents can be found on many surf beaches every day. Rip currents most typically form at low spots or breaks in sandbars, and also near structures such as groins, jetties and piers. Rip currents can occur at any beach with breaking waves, including the Great Lakes.



## How do rip currents result in the drowning of swimmers?

Drowning deaths occur when people pulled offshore are unable to keep themselves afloat and swim to shore. This may be due to any combination of fear, panic, exhaustion, or lack of swimming skills. Rip currents are the greatest surf zone hazard to all beachgoers. They can sweep even the strongest swimmer out to sea. Rip currents are particularly dangerous for weak and non-swimmers.

More information about rip currents can be found at the following sites:

<http://www.ripcurrents.noaa.gov>

<http://www.usla.org/ripcurrents>

<http://www.weather.gov/nwr/>

