



# 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?

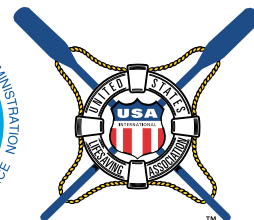
Drowning deaths occur when people pulled offshore are unable to keep themselves afloat and swim to shore. This may be due to any combination of fear, panic, exhaustion, or lack of swimming skills. Rip currents are the greatest surf zone hazard to all beachgoers. They can sweep even the strongest swimmer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



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**Before you leave for the beach, NOAA encourages you to check the latest National Weather Service forecast for local beach conditions. Many offices issue a Surf Zone Forecast.**

## Q How can I identify a rip current?

Signs that a rip current is present are very subtle and difficult for the average beachgoer to identify. Look for differences in the water color, water motion, incoming wave shape or breaking point compared to adjacent conditions. Look for any of these clues:

- Channel of churning, choppy water
- Area having a notable difference in water color
- Line of foam, seaweed, or debris moving steadily seaward
- Break in the incoming wave pattern
- One, all or none the clues may be visible.

## Q How can people avoid rip current problems?

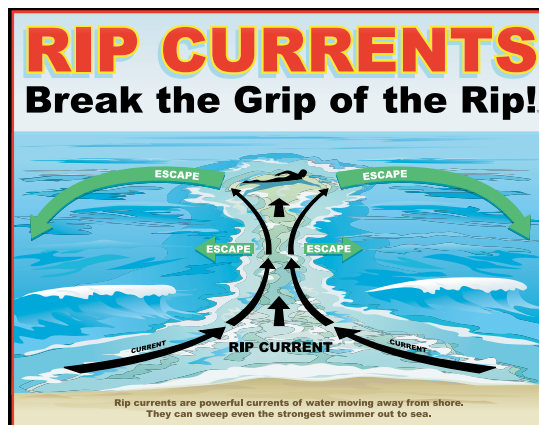
Avoid rip current problem by:

- Learn to swim
- If you'll be in surf, learn to swim in surf. It's not the same as a pool or lake.
- Never swim alone.
- Swim near a lifeguard.
- Look for posted signs and warning flags, which may indicate higher than usual hazards.
- Check with lifeguards before swimming.
- Obey all instructions provided by lifeguards.
- Be cautious. Always assume rip currents are present even if you don't see them.
- If in doubt, don't go out!

## Q What can people do if caught in a rip current?

If caught in a rip current:

- Try to remain calm to conserve energy.
- Don't fight the current.
- Think of it like a treadmill you can't turn off. You want to step to the side of it.
- Swim across the current in a direction following the shoreline.
- When out of the current, swim and angle away from the current and towards shore.



- If you can't escape this, try to float, or calmly tread water. Rip current strength eventually subsides offshore. When it does, swim toward shore.
- If at any time you feel you will be unable to reach shore, draw attention to yourself: face the shore, wave your arms, and yell for help.

## Q How can people assist others who are caught in a rip current?

You can help someone caught in a rip current by:

- If you see someone in trouble, get help from a lifeguard.
- If no lifeguard is available, have someone call 9-1-1.
- Throw the rip current victim something that floats – a lifejacket, a cooler, a ball.
- Yell instructions on how to escape.
- Many have died trying to help others. Don't become a victim while trying to help someone else!
- Before you leave for the beach, check the latest National Weather Service forecast for local beach conditions. Many offices issue a Surf Zone Forecast.
- When you arrive at the beach, ask on-duty lifeguards about rip currents and any other hazards that may be present.

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