

## General Information on Drowning

Drowning is the third leading cause of accidental death in the United States and the second leading cause of accidental death for persons aged 5 to 44. For children in the one to two year age range, drowning is the leading cause of injury death. In some states, like California, Florida, and Hawaii, drowning is the leading cause of injury death for persons under 15 years of age.

Death by drowning is only the tip of the iceberg for aquatic injury. It has been found that for every ten children who die by drowning, 140 are treated in emergency rooms, and 36 are admitted for further treatment in hospitals. Some of these never fully recover.

Males drown at a significantly higher rate than females (about 5 to 1). For boat related drownings, the ratio escalates to about 14 to 1.

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## Guide to Safety Tips

1. **Swim Near A Lifeguard:** USLA statistics over a ten year period show that the chance of drowning at a beach without lifeguard protection is almost five times as great as drowning at a beach with lifeguards. USLA has calculated the chance that a person will drown while attending a beach protected by USLA affiliated lifeguards at 1 in 18 million (.0000055%).
2. **Learn To Swim:** Learning to swim is the best defense against drowning. Teach children to swim at an early age. Children who are not taught when they are very young tend to avoid swim instruction as they age, probably due to embarrassment. Swimming instruction is a crucial step to protecting children from injury or death.
3. **Never Swim Alone:** Many drownings involve single swimmers. When you swim with a buddy, if one of you has a problem, the other may be able to help, including signaling for assistance from others. At least have someone onshore watching you.
4. **Don't Fight the Current:** USLA has found that some 80% of rescues by USLA affiliated lifeguards at ocean beaches are caused by rip currents. These currents are formed by surf and gravity, because once surf pushes water up the slope of the beach, gravity pulls it back. This can create concentrated rivers of water moving offshore. Some people mistakenly call this an undertow, but there is no undercurrent, just an offshore current. If you are caught in a rip current, don't fight it by trying to swim directly to shore. Instead, swim parallel to shore until you feel the current relax, then

swim to shore. Most rip currents are narrow and a short swim parallel to shore will bring you to safety.

5. **Swim Sober:** Alcohol is a major factor in drowning. Alcohol can reduce body temperature and impair swimming ability. Perhaps more importantly, both alcohol and drugs impair good judgement, which may cause people to take risks they would not otherwise take.
6. **Leash Your Board:** Surfboards and bodyboards should be used only with a leash. Leashes are usually attached to the board and the ankle or wrist. They are available in most shops where surfboards and bodyboards are sold or rented. With a leash, the user will not become separated from the floatation device. One additional consideration is a breakaway leash. A few drownings have been attributed to leashes becoming entangled in underwater obstructions. A breakaway leash avoids this problem.
7. **Don't Float Where You Can't Swim:** Nonswimmers often use floatation devices, like inflatable rafts, to go offshore. If they fall off, they can quickly drown. No one should use a floatation device unless they are able to swim. Use of a leash is not enough because a non-swimmer may panic and be unable to swim back to the floatation device, even with a leash. The only exception is a person wearing a Coast Guard approved life jacket.
8. **Life Jackets = Boating Safety:** Some 80% of fatalities associated with boating accidents are from drowning. Most involve people who never expected to end up in the water, but fell overboard or ended up in the water when the boat sank. Children are particularly susceptible to this problem and in many states, children are required to be in lifejackets whenever they are aboard boats.
9. **Don't Dive Headfirst, Protect Your Neck:** Serious, lifelong injuries, including paraplegia, occur every year due to diving headfirst into unknown water and striking the bottom. Bodysurfing can result in a serious neck injury when the swimmer's neck strikes the bottom. Check for depth and obstructions before diving, then go in feet first the first time; and use caution while bodysurfing, always extending a hand ahead of you.
10. **At Home, You're the Lifeguard:** Drowning is the leading cause of accidental death in many states for children age one and two. A major reason for this is home pools, which can be death traps for toddlers. Many of these deaths occur in the few moments it takes a parent to answer a telephone or doorbell. NEVER leave a child alone anywhere near a pool. Make sure it is completely fenced, that the fence is locked, and that there is no access from the home to the pool. Don't let your child or a neighbor's child get into the pool when you're not there.

## Why Rip Currents Form

As waves travel from deep to shallow water, they will break near the shoreline. When waves break strongly in some locations and weakly in others, this can cause circulation cells which are seen as rip currents: narrow, fast-moving belts of water traveling offshore.

## Why Rip Currents are Dangerous

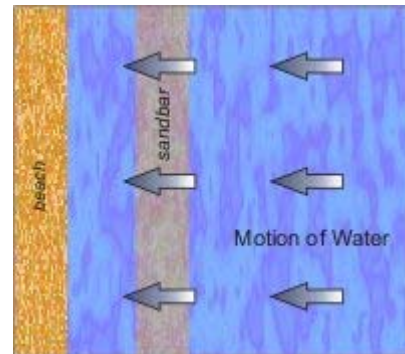
Rip currents are the leading surf hazard for all beachgoers. They are particularly dangerous for weak or non-swimmers. Rip current speeds are typically 1-2 feet per second. However, speeds as high as 8 feet per second have been measured--this is faster than an Olympic swimmer can sprint! Thus, rip currents can sweep even the strongest swimmer out to sea.

Over 100 drownings due to rip currents occur every year in the United States. More than 80% of water rescues on surf beaches are due to rip currents.

Rip currents can occur at any surf beach with breaking waves, including the Great Lakes.

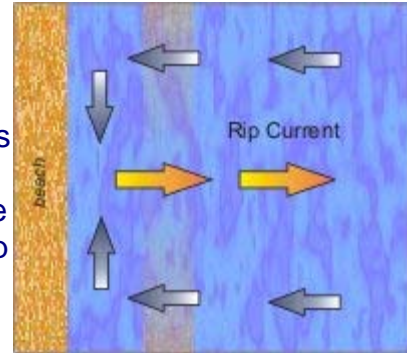
## When Rip Currents Form

Rip currents can be found on many surf beaches every day. Under most tide and sea conditions the speeds are relatively slow. However, under certain wave, tide, and beach profile conditions the speeds can quickly increase to become dangerous to anyone entering the surf. The strength and speed of a rip current will likely increase as wave height and wave period increase. **They are most likely to be dangerous during high surf conditions as the wave height and wave period increase.**



## Where Rip Currents Form

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 be very narrow or extend in widths to hundreds of yards. The seaward pull of rip currents varies: sometimes the rip current ends just beyond the line of breaking waves, but sometimes rip currents continue to push hundreds of yards offshore.



## How to Identify Rip Currents

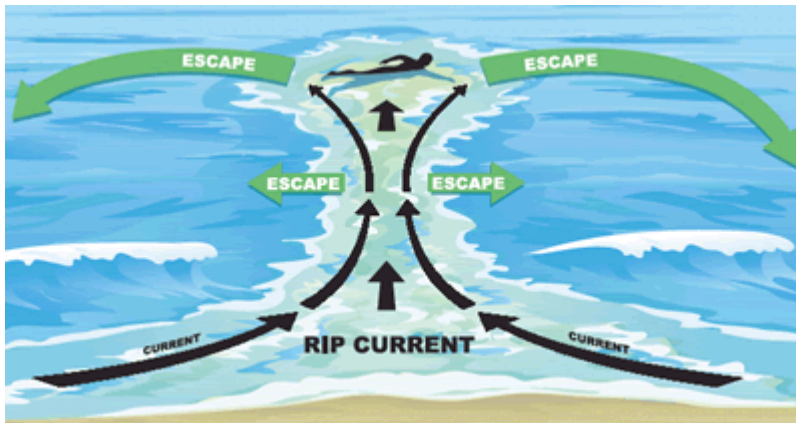
Look for any of these clues:

- a channel of churning, choppy water
- an area having a notable difference in water color
- a line of foam, seaweed, or debris moving steadily seaward
- a break in the incoming wave pattern



None, one, or more of the above clues may indicate the presence of rip currents. Rip currents are often not readily or easily identifiable to the average beachgoer. For your safety, be aware of this major surf zone hazard. Polarized sunglasses make it easier to see the rip current clues provided above.

## How to Avoid and Survive Rip Currents



### Learn how to swim!

- Never swim alone.
- Be cautious at all times, especially when swimming at unguarded beaches. If in doubt, don't go out!
- Whenever possible, swim at a lifeguard protected beach.
- Obey all instructions and orders from lifeguards.
- If caught in a rip current, remain calm to conserve energy and think clearly.
- Don't fight the current. Swim out of the current in a direction following the shoreline. When out of the current, swim towards shore.
- If you are unable to swim out of the rip current, float or calmly tread water. When out of the current, swim towards shore.
- If you are still unable to reach shore, draw attention to yourself: face the shore, wave your arms, and yell for help.
- If you see someone in trouble, get help from a lifeguard. If a lifeguard is not available, have someone call 9-1-1. Throw the rip current victim something that floats and yell instructions on how to escape. **Remember, many people drown while trying to save someone else from a rip current.**

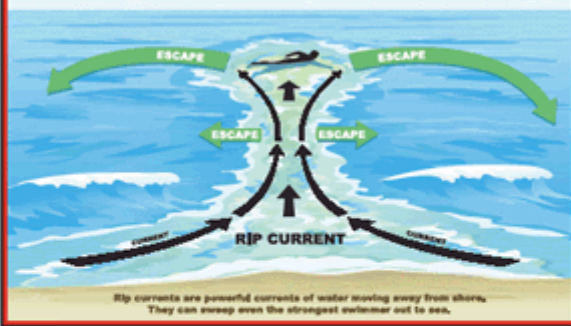
### Rip Current Myth

A rip current is a horizontal current. Rip currents do not pull people under the water—they pull people away from shore. 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.

**In some regions rip currents are referred to by other, incorrect terms such as rip tides and undertow. We encourage exclusive use of the correct term – rip currents. Use of other terms may confuse people and negatively impact public education efforts.**

# RIP CURRENTS

## Break the Grip of the Rip!



### IF CAUGHT IN A RIP CURRENT

- ◆ Don't fight the current
- ◆ Swim out of the current, then to shore
- ◆ If you can't escape, float or tread water
- ◆ If you need help, call or wave for assistance

### SAFETY

- ◆ Know how to swim
- ◆ Never swim alone
- ◆ If in doubt, don't go out

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

[www.ripcurrents.noaa.gov](http://www.ripcurrents.noaa.gov)  
[www.usfa.org](http://www.usfa.org)

