# Rip Current Safety

**Presentation Length:** Approximately 30 minutes

**Acknowledgments**
The American Red Cross thanks the following subject matter experts for their contributions to this presentation:

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**Key Terms**

**Longshore:** The direction parallel to the shore

**Drowning:** The process of experiencing respiratory impairment from submersion/immersion in liquid

**Embayment:** A low area on a sandy beach

**Estuary:** A body of water influenced by ocean tides, such as a bay or the mouth of a river, fed by fresh water and ocean water

**Groin**: A human-made structure that extends outward into the water from shore; also called a jetty where near a navigation channel

**Offshore:** (1) Moving away from the shore; (2) at a distance from the shore

**Pier:** A structure that extends outward into the water from shore that provides a raised pathway over water

**Rip current:** Narrow, strong currents at surf beaches that move water away from shore

**Surf zone:** The area where waves break, beginning where the wave crest begins to break to the highest point water reaches on the shore

**Objectives**
After completing this presentation, participants will be able to:

- Recognize the dangers posed by rip currents.
- Understand some visual cues to identify rip currents.

- Explain steps to take to avoid rip currents.
- Describe how to escape rip currents.

**Materials, Equipment and Supplies**

- American Red Cross identification
- Easel pad and markers, chalkboard and chalk or white board and markers
- Handout (one per participant; download from http://c.ymcdn.com/sites/www.usla.org/resource/resmgr/docs/ripcurrentsign.pdf):
  - Break the Grip of the Rip
- *American Red Cross Swimming and Water Safety*

## Presentation Outline

| Topic | Length |
|---|---|
| Introduction | 2 minutes |
| What Is a Rip Current? | 10 minutes |
| Surf Beach Safety | 5 minutes |
| Surviving a Rip Current | 10 minutes |
| Wrap-Up | 3 minutes |
| Approximate Time for Total Presentation | 30 minutes |

## Topic: **Introduction**

Time: 2 minutes

**Activity**

- Welcome participants and thank them for allowing you to speak about this important safety information.
- Have participants introduce themselves and explain their reasons for attending this presentation.
- Explain that in this presentation you are going to discuss some safety information that will help them and their families recognize and avoid the dangers posed by rip currents and know what to do if caught in one.
- Distribute brochures, newsletters or course catalogs that list Red Cross courses offered locally, if available.

## Topic: **What Is a Rip Current?**

Time: 10 minutes

**Key Points and Discussion**

- What is a rip current?

  ***Answer:*** *Rip currents are currents at surf beaches that move water away from shore. They exist at any surf beach, including the Great Lakes.*

- Rip currents are not rip tides. A rip current is not a tidal current. Although tidal currents can be dangerous, especially tidal currents near inlets, estuaries and bays, they should not be confused with rip currents.
- Rip currents result from the complex interaction of wind, waves, currents, structures (such as piers or jetties), water depth and the bottom surface near the shore.
- Rip currents can be found on any beach where waves break.

- This is how the National Weather Service explains the formation of rip currents: "As waves travel from deep to shallow water, they eventually break near the shoreline. As waves break, they generate currents that flow in both the offshore (away from the coast) and the longshore directions. Currents flowing away from the coast are called rip currents."
- According to the National Weather Service, common indicators of a rip current include:
  - An area having a noticeable difference in water color; typically areas of darker water between sections of breaking waves, often over shallow sandbars.
  - A channel of churning, choppy water.
  - A line of foam, seaweed or debris moving steadily away from shore.
  - A break in the incoming wave pattern.
  - Large erosional embayments (scallops) along the shoreline.
- Be aware that rip currents may still be present, even if none of the indicators are observed.
- It can be difficult for most people to recognize the presence of a rip current, and many of the common indicators of a rip current are not always easy to identify. Never assume that if you do not see any of the common rip current indicators that no rip currents are present.
- Where are rip currents found?

  ***Answer:*** *Dangerous rip currents can be found on any beach where waves break across a wide area, including the Great Lakes.*

- Rip currents often occur in deep channels between shallow sandbars. They can reach widths of over 100 feet.
- Rip currents can also form against groins, jetties and piers. When swimming, always stay at least 100 feet away from jetties and piers.
- Why are rip currents dangerous?

  ***Answer:*** *Strong rip currents can be very fast—much faster than any human can swim—and are capable of pulling a person a significant distance from shore, beyond the breaking waves.*

- The United States Lifesaving Association estimates that each year more than 100 people die as a result of rip currents on our nation's beaches. Rip currents account for more than 80 percent of rescues performed by surf beach lifeguards.
- Although rip currents may disperse just past the line of breaking waves, in some cases, rip currents can continue for hundreds of yards offshore.
- Dangerous rip currents are always a possibility, even under gentle surf conditions.
- The strength and speed of a rip current will likely increase as wave height and the time between waves increases and around low tide.
- Do rip currents pull people underwater?

  ***Answer:*** *No. Rip currents move people away from shore. Ocean currents do not pull you down.*

- People caught in rip currents can become exhausted or panicked trying to swim to shore or keep afloat, which can lead to drowning, but rip currents themselves do not pull people underwater.

## Topic: **Surf Beach Safety**

Time: 5 minutes

### Key Points and Discussion

- Whether it is in your backyard or at the beach, staying safe in, on and around the water is no accident—it takes knowledge and forethought.

- The best thing you can do improve your safety in, on and around the water is to learn to swim well and participate in water safety training that helps prepare you to handle an aquatic emergency.
- In addition to learning to swim, what other general water safety tips should you follow that can help you stay safe in, on and around the water?

  ***Answer:*** *Responses should include the following:*
  - *Swim only in areas supervised by a lifeguard.*
  - *Always swim with someone; never swim alone.*
  - *Read and obey all rules and posted signs and flags as well as lifeguard instructions.*
  - *Swim only in areas designated for swimming.*
  - *If you are not a good swimmer, don't go in past ankle depth. Always make sure you have a good footing.*
  - *Do not dive in headfirst into the surf.*
- To stay safe and help keep your family safe at a surf beach, follow these safety tips:
  - Before you go, find out what the current weather and beach conditions are, the Surf Zone Forecast—which we will discuss more shortly—where lifeguards are on duty, and whether swimming is permitted.
  - Upon arrival, check with lifeguards to find out the best place to swim and about any unusual issues.
  - Learn about the current conditions before entering the water.
  - Designate a responsible individual as the person to watch over children, even if a lifeguard is present.
  - Have young children or inexperienced swimmers take extra precautions, such as wearing a U.S. Coast Guard–approved life jacket and staying within arm's reach of the designated "water watcher." Do not rely on water wings, swim rings, inflatable toys and other water recreation items as a substitute for a U.S. Coast Guard–approved life jacket or proper supervision. These items cannot be counted on to keep you afloat. They can suddenly shift position, lose air or slip away, leaving children and adults offshore without buoyancy.
  - Watch out for the "dangerous too's": too tired, too cold, too far from safety, too much sun and too much strenuous activity.
  - Set specific swimming rules for each individual in a family or a group based on swimming ability (for example, inexperienced swimmers should stay in shallow water less than chest deep).
  - Be prepared. Aquatic emergencies happen quickly and suddenly. Whenever possible have a telephone or mobile phone nearby.

## Surf Zone Forecast

### Key Points

- Before heading to the beach, you can check the Surf Zone Forecast, a report issued by many coastal National Weather Service offices. The Surf Zone Forecast includes a daily rip current outlook. To check the Surf Zone Forecast, go to http://www.ripcurrents.noaa.gov/forecasts.shtml.
- Remember that the Surf Zone Forecast is a prediction, not a certainty.
- When you arrive at the beach, check with lifeguards to find out about rip currents or other potentially dangerous conditions expected for the day.
- If you have any doubt, do not go out.

***Leader's Note:*** *If you have access to the Internet, go to http://www.ripcurrents.noaa.gov/forecasts.shtml and show participants how to check the rip current outlook for the coastal area nearest you. You may also show the "rip of the month" at www.scienceofthesurf.com.*

## Topic: **Surviving a Rip Current**

Time: 10 minutes

### Key Points and Discussion

- If you find yourself being pulled away from shore, you are very likely in a rip current.
- First of all, relax.
- Rip currents can be quite strong, so fighting the current can lead to panic and exhaustion.
- Do not swim against the current back to shore.
- Try to swim out of the rip by looking for areas of breaking waves and whitewater that are close to you. These are often at a sideways, or parallel, direction to the beach. The goal is to swim across the current, not against the current. Since rip currents can pull away from shore at an angle, swimming across the current may not be possible, but if you escape the current, head back to shore and away from the current at an angle.
- If you are unable to swim out of the current, what else can you do?

  ***Answer:*** *Responses should include the following:*
  - *Float on your back.*
  - *Tread water.*
  - *Wave your arms and call for help.*
- Remember that rip currents slow down just past the line of breaking waves. Sometimes they even return people to shallow water in a circular pattern. If you float or tread water, you can swim to shore once you are out of the current.
- What should you do if you see someone who is caught in a rip current?

  ***Answer:*** *Reponses should include the following:*
  - *Call the lifeguard.*
  - *If no lifeguard is available, call 9-1-1.*
  - *If possible, throw the person something that floats, such as a life jacket.*
  - *Talk to the person and tell them how to escape.*
  - *Do not enter the water to help a person who is in trouble unless you are trained to do so. Many people die when attempting to help someone caught in a rip current or otherwise in trouble in the water.*
- If you ever see someone in trouble in the water, remember the rule, “Reach or throw, don’t go.”

***Leader’s Note:*** *Distribute a copy of the handout, Break the Grip of the Rip, to each participant.*

## Topic: **Wrap-Up**

Time: 3 minutes

### Key Points

- Today we learned how to recognize and avoid rip currents and what to do if you are caught in one.
- Does anyone have any other questions about any of the topics we covered today?
- Remember to go to redcross.org/takeclass to enroll in swim lessons; water safety training; and first aid, CPR and AED classes. You can also call swimming pools in your area and be sure to ask for Red Cross training.
- Be sure to download the free Red Cross Swim mobile application, as well as other Red Cross apps that provide lifesaving information on topics such as first aid, tornadoes, hurricanes and more. Download American Red Cross apps directly from the iTunes, Google Play or Amazon Marketplace app stores.

***Leader’s Notes:***

- *Briefly answer any questions and thank participants for their time and participation.*
- *Report your teaching activity and the results of this course to the Red Cross Learning Center.*