



STRONG'S MARINE BOATING SAFETY GUIDE

Excerpted from the New York State Boating Safety online course

Strong's Marine promotes safe boating practices to ensure boaters have a great experience out on the water. As a service to our clients, we offer this abbreviated one-hour version of the New York State Boating Safety Course materials. Mastery of this material is required to rent a boat from Strong's Marine, and every boater should be aware of this information.

Note that this shortened course is NOT STATE-APPROVED, nor is it a substitute for getting New York State certified in Boating Safety. Strong's Marine is not liable for any accidents that may occur related to the material included in these course materials.

We encourage all boaters to obtain New York State Boating Safety Certification by completing the full 8-hour NYS Boating Safety Course. Look for our re-scheduled in-person classes as COVID-19 guidelines allow; in the meanwhile, certification may be obtained online through any of the sources below.

<https://www.boaterexam.com/usa/newyork/>

<https://www.boat-ed.com/newyork/>

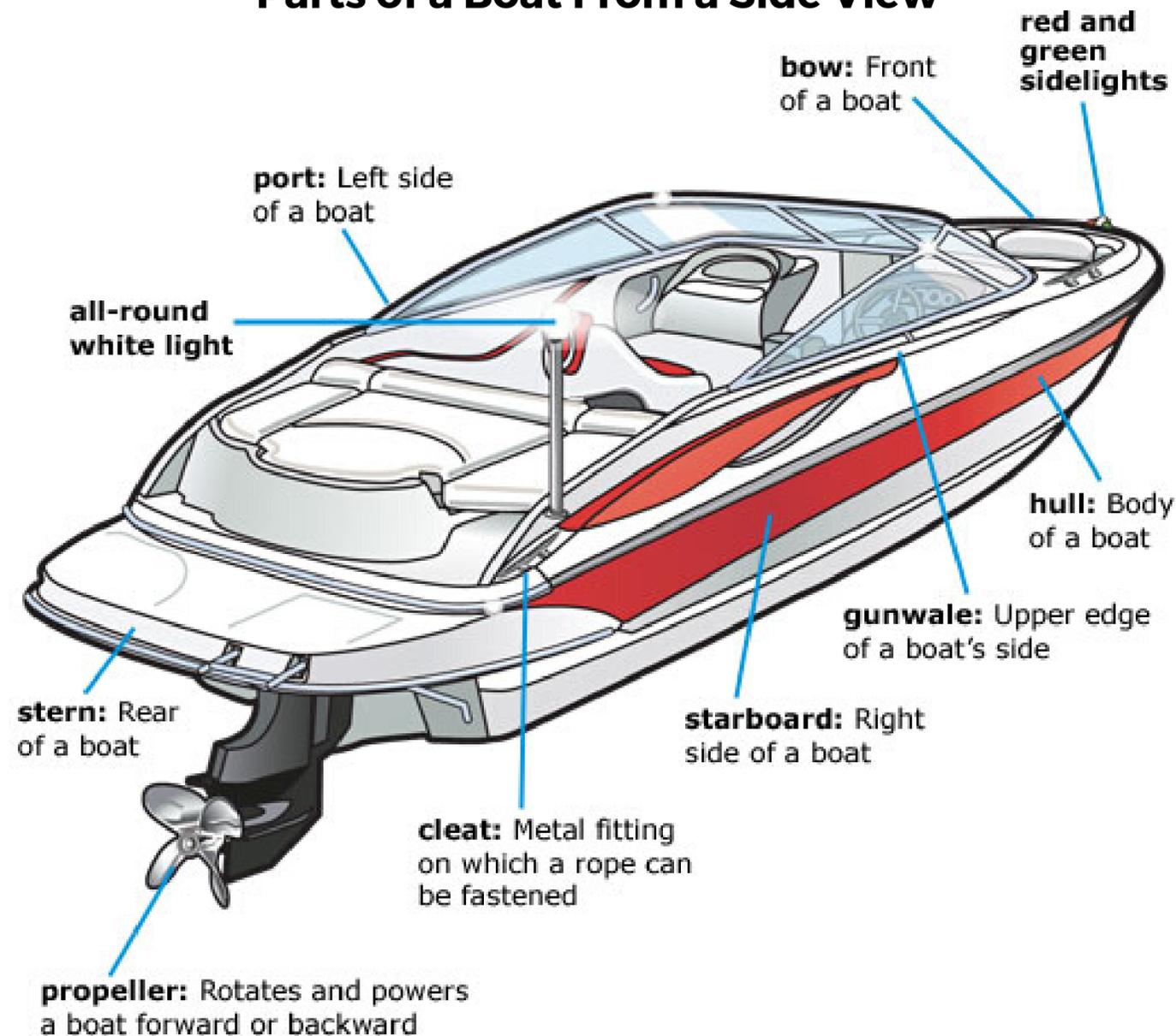
<https://www.ilearntoboat.com/newyork/>

Happy Boating!



Strong's Marine Boating Safety Course

Parts of a Boat From a Side View



Boats come in many styles and shapes, but the names of the different parts remain consistent. Every boat operator should know the following terms and definitions.

Glossary

bow - Front of a vessel

stern - Rear of a vessel

starboard - Right side of a vessel

port - Left side of a vessel

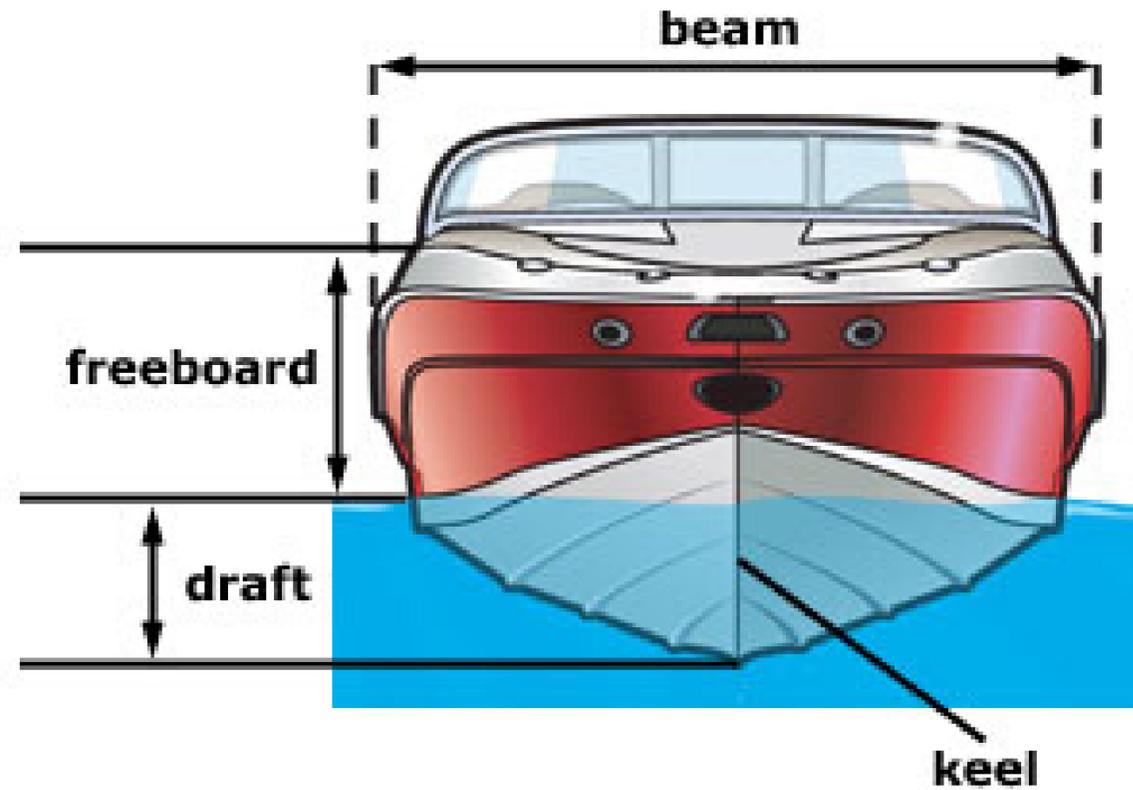
hull - Body of a vessel

gunwale - Upper edge of vessel's side (generally pronounced "gunnel")

cleat - Metal fitting on which a rope can be fastened

propeller - Rotates and powers a boat forward or backward

Parts of a Boat From a Front View



Video: Casting Off & Docking (4:03)

Video: Rules of the Waterways (3:39)

Video: Navigating the Waterways (3:20)

Video: Anchoring Your Boat (3:06)

Glossary

beam - Maximum width of a vessel

freeboard - Distance from water to lowest point of the boat where water could come on board

draft - Depth of water needed to float a vessel

keel - Main centerline (backbone) of a vessel or the extension of hull that increases stability in the water

The Most Gruesome of Boating Accidents



If you've ever seen a propeller strike accident, you want to do everything in your power to prevent another one.

They can be the most gruesome of boating accidents. Anyone in the water around a boat—a swimmer, scuba diver, fallen water-skier, or someone who's fallen overboard—is a potential victim. Many propeller accidents are caused by operator inexperience, incompetence, negligence, and intoxication.

However, most accidents can be prevented if operators follow a few simple safety practices.

How to Prevent Propeller Strikes



Turn off the engine when passengers are boarding or disembarking. Propellers should not be spinning when a passenger is in a vulnerable situation.

Prevent passengers from being thrown overboard accidentally.

- Never start a boat with the engine in gear.
- Never ride on a seat back, gunwale, transom, or bow.
- Make sure all passengers are seated properly before getting underway. Some operators cause injuries by putting the engine in gear while people are still swimming or diving from the boat.
- Assign a responsible adult to watch any children in the boat and sound the alarm if a child falls overboard.

Maintain a proper lookout for people in the water. The primary cause of propeller strike accidents is operator inattention or carelessness.

- Slow down when approaching congested areas and anchorages. In congested areas, always be alert for swimmers and divers.
- Learn to recognize warning buoys that mark swimming and other hazardous areas.
- Keep the boat away from marked swimming and diving areas. Become familiar with the red flag with a white diagonal stripe and the blue-and-white “Alfa” flag—both signal that divers are down.

The "Circle of Death"

Every year, serious injuries and deaths occur when boat operators let go of the steering wheel or outboard steering handle while the boat is moving. A phenomenon called steering torque forces the motor to slam to the left, causing the boat to swerve sharply to the right and throwing the victim into the water.

The boat continues to travel in a circle and returns to strike the victim in the water, inflicting massive propeller wounds—thus the term "circle of death."



The way to avoid this type of accident is to never let go of the steering wheel or handle until the boat has stopped moving. You should also **use the automatic shut-off lanyard if your motor is equipped with one**. Be sure that clamp-on swivel seats are tightly secured and seat backs are sturdy enough to withstand the shock of a victim being thrown against them. And finally, if you notice that it takes extra pressure to hold your boat's steering, have it professionally serviced immediately.

Reckless Operation of a Vessel

New York law prohibits reckless operation of a vessel. Reckless operation of a vessel is that which unreasonably interferes with the free and proper use of the navigable waters of the state or unreasonably endangers any other vessel or person. The following are some examples of reckless operation.

Reckless Operation is acting in a way which disregards the safety of yourself and/or others, including:

- Jumping the wake of another vessel too close to that vessel
- Following too close to another vessel
- Operating too close to swimmers or divers
- Weaving through congested traffic
- Swerving at the last minute to avoid a collision
- Overloading the vessel beyond the recommended capacity shown on the capacity plate installed by the vessel manufacturer



Improper Speed or Distance



Failure to Regulate Speed is going faster than is reasonable and prudent under the conditions (vessel traffic, weather, closeness to shore, etc.) or not having regard for actual or potential hazards. Some examples are:

- Operating at an excessive speed in the vicinity of other vessels or in dangerous waters
- Operating at greater than “slow, no wake speed” in any posted “no wake” zone
- Operating at greater than the posted speed limit on any body of water
- Operating at a speed that causes damage from the wake of your vessel

Improper Distance is operating a vessel at greater than 5 mph when operating within 100 feet of:

- The shore
- A dock or pier
- A raft or float
- An anchored or moored vessel

Glossary

“slow, no wake speed” - The slowest speed at which it is still possible to maintain steering; the vessel should not produce a wake at this speed

Bow Riding

Riding on the Bow, Deck, or Gunwale is allowing passengers to ride on the bow, gunwale, transom, seat backs, seats on raised decks, or any other place that is not equipped with fixed seating and there may be a chance of falling overboard. This does not apply to persons involved with mooring, anchoring, or handling the sails of a vessel.

Glossary

gunwale - Upper edge of vessel's side (generally pronounced "gunnel")
overboard - Over the side or out of the vessel

Unsafe Condition

Unsafe Condition is operating a vessel in a condition that causes a hazard to the occupants or others on the waterways. Law enforcement officers may instruct the operator to immediately return to the nearest dock or safe anchorage, and the operator may not continue operating until the condition is corrected. Examples of conditions that are considered unsafe operation include:

- There are insufficient personal flotation devices, fire extinguishers, backfire flame arrestors, ventilation systems, or navigation lights.
- The boat is overloaded or overpowered.
- The boat has fuel in the bilge.
- The operator is intoxicated.

Requirements for Towing

Vessel operators towing a person(s) on water skis, a surfboard, or any similar device must obey these laws also.

- Those being towed must wear a U.S. Coast Guard-approved Type I, II, or III PFD.
- Every vessel towing a person(s) on water skis, a surfboard, or a similar device must have on board a person who is at least 10 years old, in addition to the operator, observing the towed person(s).

Water-skiing, along with being towed on a tube, kneeboard, or similar device, is very popular with boaters. These activities are both fun and challenging; however, towing people on skis or other devices requires additional knowledge and skills.

Before towing a skier, the operator should:

- Review hand signals with the skier to ensure proper communication.
- Be familiar with the area and aware of any hazards such as shallow water, rocks, or bridge pilings in the water.
- Make sure the tow lines are of the same length if towing multiple skiers.



Towing a Person with Vessel Legally

It is illegal for vessel operators to tow person(s) on water skis, a surfboard, or any similar device between sunset and sunrise. Vessels towing water-skiers or participating in a similar activity must operate in a careful and prudent manner.

- A reasonable distance from other vessels, people, and property must be maintained so as not to endanger life or property.
- Buzzing or spraying another vessel or swimmer is illegal.



When starting to tow a skier, the operator should:

- Start the engine after making sure that no one in the water is near the propeller.
- Start the boat slowly until the ski rope is tight. When the skier is ready and there is no traffic ahead, take off in a straight line with enough power to raise the skier out of the water. Once the skier is up, adjust the speed according to the signals given by the skier.

Towing a Person with Vessel Legally

While towing a skier, the operator should:

- Keep the skier at a safe distance—at least twice the length of the tow rope—from the shoreline, docks, hazards, and people in the water.
- Avoid congested areas, beaches, docks, and swimming areas. Water-skiing takes a lot of room. Some areas may have designated traffic patterns.
- Maintain a sharp lookout for other vessels and obstructions in the water. Let the observer watch the skier.
- Always respond to the skier's signals. If you need to turn the boat, signal the skier of your intentions.
- Once the skier has dropped or fallen, circle the skier slowly either to return the tow line to the skier or to pick up the skier. Always keep the skier in view and on the operator's side of the boat. Some states require the display of a red or orange skier-down flag under certain conditions.
- To avoid propeller injuries, always shut off the engine before allowing the skier to board the boat. After the skier is on board, retrieve the tow line unless you are pulling another skier.



Towing a Person with Vessel Legally

When in the water, the skier should:

- Wear a PFD. You never know when a fall will knock you unconscious.
- Learn to use hand signals.
- Never ski under the influence of drugs or alcohol. This is illegal and extremely dangerous because of the damage to your judgment and reflexes.
- Never spray swimmers, vessels, or other skiers. Such activity is illegal, dangerous, and discourteous.
- Never wrap any part of the tow rope around your body.
- Always hold a ski up out of the water after falling or after dropping the rope so that the boat operator and other vessels can see you.
- Never approach the back of the boat unless the engine has been shut off. Otherwise, you could be seriously injured by the boat's propeller.



Hand Signals for Towing



Skier OK



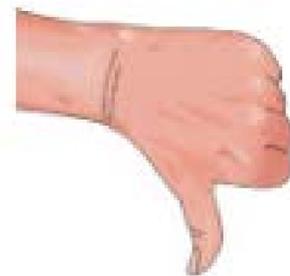
Skier down—watch!



Stop



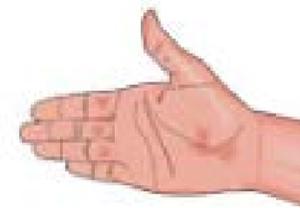
Speed up



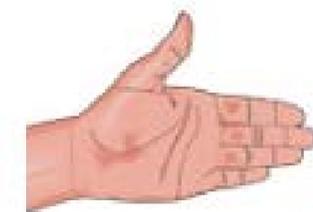
Slow down



Speed OK



Turn right



Turn left

Overview of Pollutant Disposal Laws

It is illegal to discharge waste, oil, or trash into any state or federally controlled waters. This is for very good reasons.

- Sewage carries disease and is harmful to people, aquatic plants, and animals.
- Trash thrown into the water can injure swimmers and wildlife alike. It also can plug engine cooling water intakes.
- Pollution is unsightly and takes away from your enjoyment of the water.

Vessel operators need to be aware of the following regulations for waste, oil, and trash disposal that apply to both federally controlled and state waters. The Refuse Act prohibits throwing, discharging, or depositing any refuse matter of any kind (including trash, garbage, oil, and other liquid pollutants) into the waters of the United States.

Discharge of Trash

The Act to Prevent Pollution from Ships places limitations on the discharge of garbage from vessels. It is illegal to dump refuse, garbage, or plastics into any state or federally controlled waters. Many forms of litter can kill birds, fish, and marine mammals.

- You must store trash in a container while on board and place it in a proper receptacle after returning to shore.
- If boating on federally controlled waters and your vessel is 26 feet or longer, you must display a Garbage Disposal Placard in a prominent location. The Garbage Disposal Placard is a durable sign that is at least 4 x 9 inches and notifies passengers and crew about dumping restrictions.
- It is illegal to dump garbage or plastics into any state or federally controlled waters. Bring all trash back to the shore and dispose off properly.

What to do if involved in an Accident

An operator involved in a boating accident must:

- Stop his or her vessel **immediately** at the scene of the accident **and ...**
- Assist anyone injured or in danger from the accident, unless doing so would seriously endanger his or her own vessel or passengers **and ...**
- Give, in writing, his or her name, address, and vessel identification to anyone injured and to the owner of any property damaged by the accident.

Reporting an Accident

Vessel operators involved in an accident must report the accident if it has resulted in:

- Death or disappearance of a person **or ...**
- An injury requiring professional aid **or ...**
- Property damage exceeding \$1,000.

If the accident resulted in a death, disappearance, or injury, you must report it immediately to the police and then to the Office of Parks, Recreation and Historic Preservation in writing within five days. If the owner of the property damaged cannot be located at the scene of the accident, also report the accident to the nearest police agency immediately.

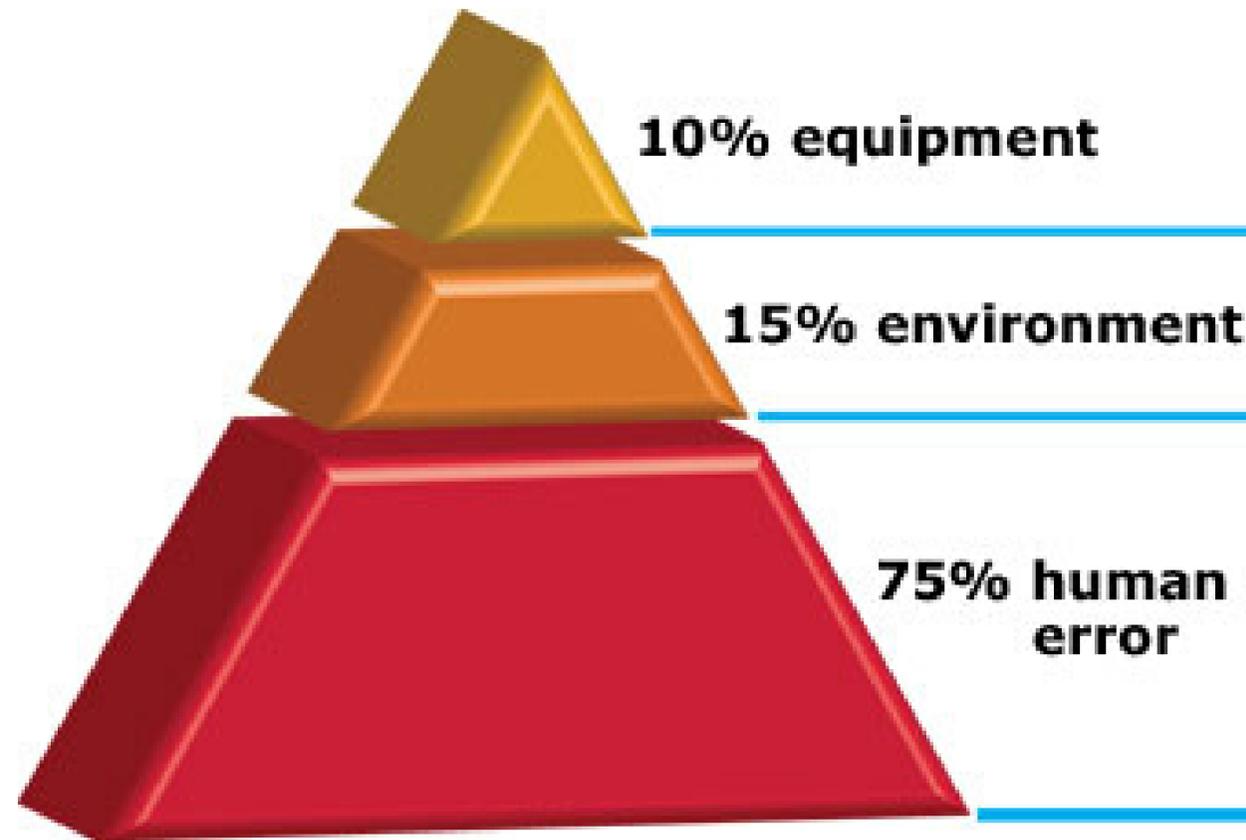
Who Enforces Boating Laws?

The boating laws of New York are enforced by State Park police; sheriff departments; local, county, and state police; the Department of Environmental Conservation; and Harbormasters and Bay Constables. U.S. Coast Guard officers also patrol and have enforcement authority on joint jurisdictional waters.

- It is illegal to refuse to follow the directive of a person with law enforcement authority.
- An operator who has received a visual or audible signal from a law enforcement officer must bring his or her vessel to a stop.

Prepare for and Prevent Accidents

When you go boating, you will encounter hazards and risks. The outcome of these encounters will be determined by your knowledge, skill, and attitude toward safety. It's important to make a boating emergency less likely to happen by taking the proper precautions; it's equally important to be prepared and know what to do if an emergency occurs.



Remember...Most accidents are preventable. Even accidents attributed to the environment most likely could have been prevented if the operator had not overlooked the warning signals, had not made poor decisions, or had the proper boating skills. Many accidents attributed to equipment also could have been prevented if proper maintenance and defect detection had taken place.

Practice Risk Management

Because most accidents are the result of a simple mistake, nearly all accidents are easily preventable.

- The best way to avoid having a serious accident is to take a few simple steps toward accident prevention. The water can be an unfriendly environment if you don't recognize risks and are not properly prepared for them.
- Risk management is the process of recognizing and acting upon accident warning signs or minimizing the effects of an accident if it does occur.
- By taking this safety course, you are practicing risk management. You've already reduced the chance that you will be involved in a dangerous boating emergency by learning safe boating practices.
 - You now know the "rules of the road" and how important it is to pay close attention to other boats and potential hazards and to maintain a safe speed. By practicing these rules, you greatly reduce the chance that you'll be involved in an accident.
 - Developing a habit of wearing your PFD also reduces the chance that you will drown should you find yourself in the water unexpectedly. Below is additional information to help you understand and minimize the risks associated with boating and make your time on the water safe and enjoyable.

Remember...It only takes one mistake to ruin your day of boating. Pay attention, slow down a little, and wear a PFD!

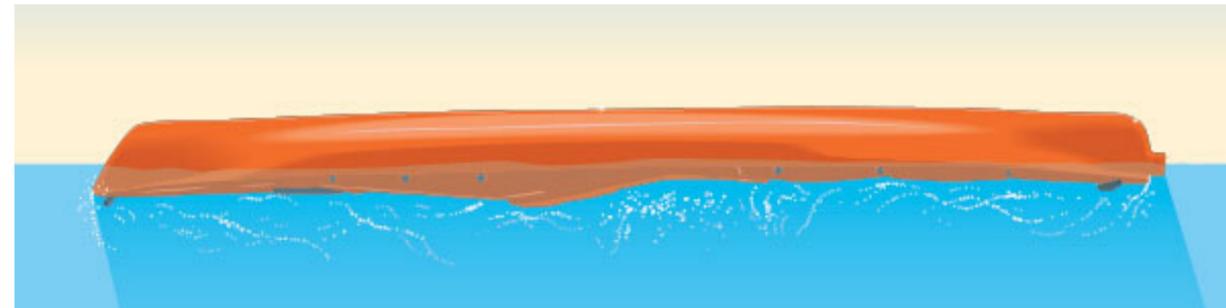


Typical Boating Fatalities

The profile of a typical U.S. boating fatality is:

- Someone not wearing a personal flotation device (PFD) falls overboard and drowns or...
- A vessel capsizes and someone drowns or...
- A vessel strikes another vessel or fixed object, and the occupants are fatally injured or drown due to injuries.

Collisions often occur because boat operators are not staying alert and keeping a lookout for other boats or objects, or are going a little faster than they should. Although some collisions happen at night when it is difficult to see, many occur in daylight hours on calm, clear days. About one-third of the time, alcohol is involved.



You also might be surprised to learn that:

- Typically, victims drown even though there are enough PFDs on the boat. (Remember, you probably won't have time to put on your PFD during an emergency. Get in the habit of wearing it.)
- The vessel is most often a small boat of open design, such as a jon boat, canoe, or other type of boat with low sides.
- The victims are usually men 26 to 50 years old, who have been boating for years and likely know how to swim.

Glossary

"overboard" - Over the side or out of the vessel

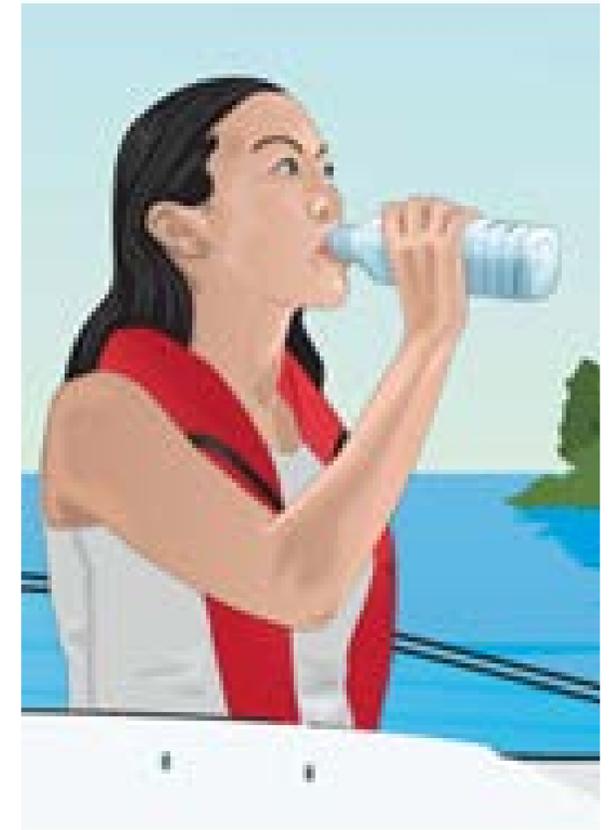
Increased Risk Due to Dehydration

A typical boating day in the summer causes your body to generate a large amount of heat. Sitting exposed in the sun increases your body heat. As you ride in a boat, your body automatically adjusts to the changing position of the boat. The exertion of this constant adjustment increases body heat.

The way the body rids itself of increased heat is by sweating. Increased sweating will cause dehydration if fluids are not replaced. Dehydration will make you more fatigued and more at risk for a boating accident.

The best way to minimize the risk of dehydration is to drink plenty of water—before, during, and after any water activities. A good rule of thumb while you are boating in warm weather is to drink some water every 15–20 minutes.

Besides thirst, other signs of dehydration are a dry mouth, sleepiness, irritability, weakness, dizziness, and a headache. The first thing you should do if you experience any of these symptoms is to drink plenty of water. If possible, get out of the sun and rest. Serious dehydration may require medical attention.



Increased Risk Due to Boating Stressors

The glare and heat of the sun, along with the motion of the vessel caused by the wind and the waves and the noise and vibration of the engine, have a large impact on your body that you may not even realize. These natural stressors make you tire more rapidly when on the water—regardless of your age or level of fitness. Many boaters greatly underestimate the effect these stressors have on fatigue.

While perhaps not fatal themselves, stressors may weaken your body and mind enough to make the risk of an accident much greater.

Minimize Risk by Avoiding Alcohol

The effect of alcohol is increased by the natural stressors placed on your body while boating. Also, alcohol causes dehydration of your body. It takes less alcohol, combined with stressors, to impair an operator's ability to operate safely. Research has proven that one-third of the amount of alcohol that it takes to make a person legally intoxicated on land can make a boater equally intoxicated on the water.

Alcohol depresses the central nervous system, affects judgment, and slows physical reaction time. Most people become impaired after only one drink.

Alcohol makes it difficult for you to pay attention and perform multiple tasks. For example, it will be more difficult for you to keep track of two or more vessels operating in your area. This could become critical if you are placed in an emergency situation and must make a sudden decision.

Alcohol can reduce your ability to distinguish colors, especially red and green.

Alcohol impairment increases the likelihood of accidents—for both passengers and vessel operators. Always designate non-drinking boaters to operate the vessel and to act as an observer if your group plans to consume alcohol. Do not allow your skipper to operate if he or she is drinking. Alcohol is a major contributor to boating accidents and fatalities.



Video: Alcohol Can Be Deadly (2:44)

Minimize Risk by Wearing PFDs (Life Jackets)

Approximately 70% of all boating fatalities are drownings, and most of those fatalities could have been avoided. Ninety percent of drowning victims are not wearing a PFD—drownings are rare when boaters are wearing an appropriate PFD. One of the most important things you can do to make boating safe and enjoyable is not only to carry enough PFDs for everyone on board but also to have everyone wear them!

PFDs must be of the proper size for the intended wearer.

Always read the label of the PFD to make sure it is the right size based on the person's weight and chest size. It's especially important to check that a child's PFD fits snugly. Test the fit by picking the child up by the shoulders of the PFD and checking that his or her chin and ears do not slip through the PFD.

Better yet, each person should wear a PFD because PFDs are difficult to put on once you are in the water. In most fatal accidents, PFDs were on board but were not in use or were not within easy reach. If you are in the water without a PFD, retrieve a floating PFD and hold it to your chest by wrapping your arms around it.

Video: Wearing Life Jackets (4:35)



Reach, Throw, Row or Go

If you are on a dock when someone falls in, you should try to "talk" the victim to safety. If he or she is unable to get to the dock, you should:

Reach

Extend a fishing rod, branch, oar, towel, or other object to REACH out to the victim and pull him or her to safety. If nothing is available, lie flat on the dock and grab the victim's hand or wrist, and pull him or her to safety.

Throw

If the victim is too far away to reach and a boat isn't handy, THROW the victim a PFD or anything else that will float.

Row

If a rowboat is available, ROW to the victim and then use an oar or paddle to pull the victim to the stern. Let the victim hold onto the stern as you paddle to shore. If the victim is too weak, hold onto him or her until help arrives. If using a powerboat, stop the engine and glide to the victim from the downwind side.

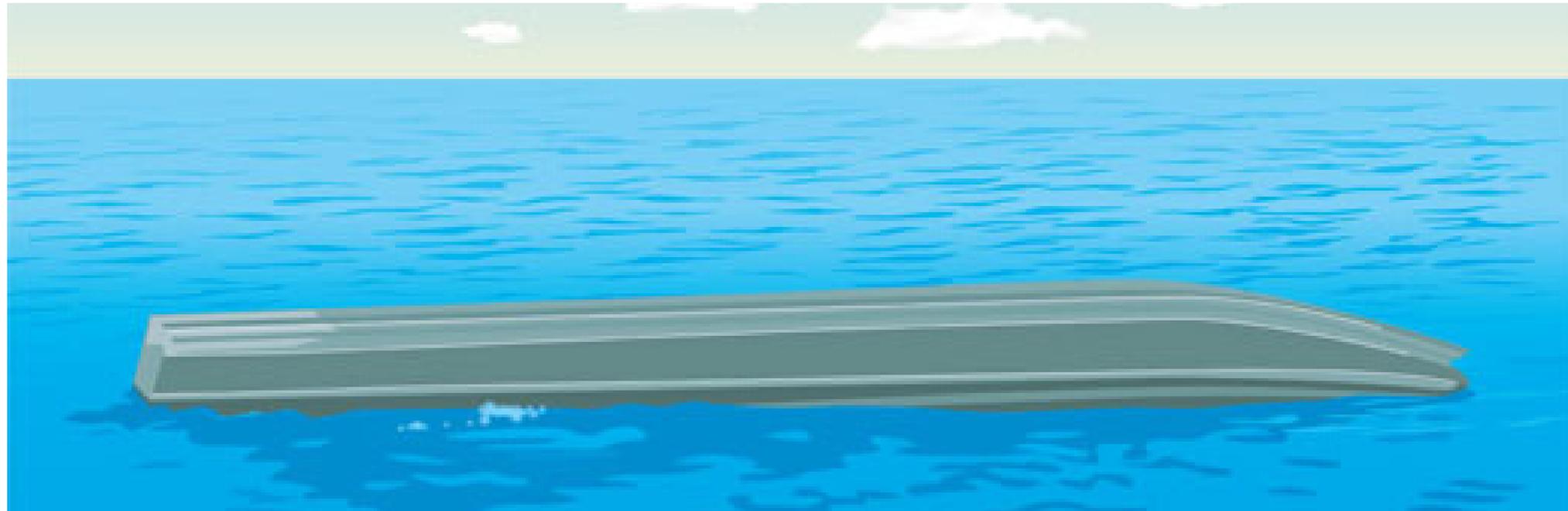
Go

Swimmers without lifesaving training should not swim to a victim. Instead, GO for help. If you must swim, take along anything that floats to keep between you and the victim.



When Boaters End Up in the Water Unexpectedly

Most boating fatalities don't have anything to do with bad weather or hazardous sea conditions. They typically occur in smaller, open boats on inland waters during daylight hours when weather and visibility are good, the winds are light, and the water is calm. Despite these ideal conditions, passengers fall overboard and many boats capsize, causing over half of all boating fatalities.



Capsizing, Swamping, or Falling Overboard

Capsizing is when a boat turns on its side or turns completely over. Swamping occurs when a boat stays upright and fills with water. Sometimes a person falling overboard from a boat causes the boat to capsize or swamp. Regardless, the outcome is the same—people are in the water unexpectedly.

Preventing Capsizing, Swamping, or Falling Overboard

Sitting on the gunwale, bow, seat backs, or any other area not designed for seating is risky behavior and can result in falling overboard. It is illegal in many states.



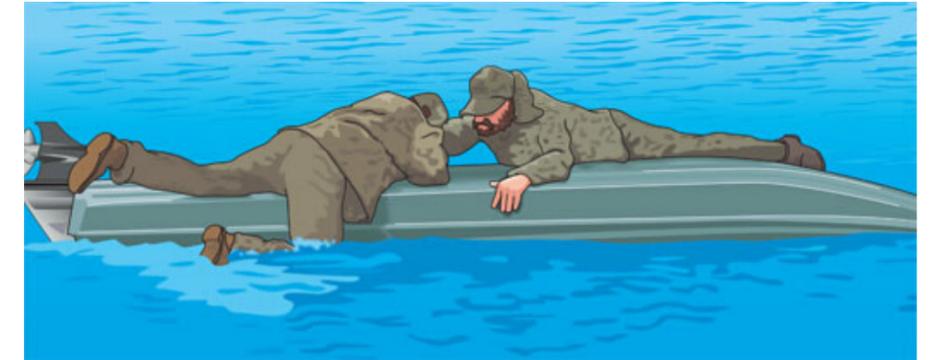
To help prevent and prepare for capsizing, swamping, or someone falling overboard, follow these guidelines.

- Make sure that you and your passengers are wearing PFDs while the boat is underway.
- Attach the engine cut-off switch lanyard to your wrist, clothes, or PFD.
- Don't allow anyone to sit on the gunwale, bow, seat backs, motor cover, or any other area not designed for seating. Also, don't let anyone sit on pedestal seats when operating at a speed greater than idle speed.
- Don't overload your boat. Balance the load of all passengers and gear.
- Keep your center of gravity low by not allowing people to stand up or move around while underway, especially in smaller, less-stable boats.
- In a small boat, don't allow anyone to lean a shoulder beyond the gunwale.
- Slow your boat appropriately when turning.
- Don't risk boating in rough water conditions or in bad weather.
- When anchoring, secure the anchor line to the bow, never to the stern.

What do if you Capsize, Swamp, or Fall Overboard

If you should capsize or swamp your boat, or if you have fallen overboard and can't get back in, stay with the boat if possible. Your swamped boat is easier to see and will signal that you are in trouble. Also signal for help using other devices available (visual distress signals, whistle, mirror).

- If you made the mistake of not wearing a PFD, find one and put it on. If you can't put it on, hold onto it. Have your passengers do the same.
- Take a head count. Reach, throw, row, or go, if needed.
- If your boat remains afloat, try to reboard or climb onto it in order to get as much of your body out of the cold water as possible. Treading water will cause you to lose body heat faster, so try to use the boat for support.



If your boat sinks or floats away, don't panic.

- If you are wearing a PFD, make sure that it is securely fastened, remain calm, and wait for help.
- If you aren't wearing a PFD, look for one floating in the water or other floating items (coolers, oars or paddles, decoys, etc.) to help you stay afloat. Do your best to help your passengers find something to help them float and stay together.
- If you have nothing to support you, you may have to tread water or simply float. In cold water, float rather than tread to reduce hypothermia.



What to do if a Passenger Falls Overboard

If someone on your boat falls overboard, you need to immediately:

- Reduce speed and toss the victim a PFD—preferably a throwable device—unless you know he or she is already wearing a PFD.
- Turn your boat around and slowly pull alongside the victim, approaching the victim from downwind or into the current, whichever is stronger.
- Stop the engine. Pull the victim on board over the stern, keeping the weight in the boat balanced, especially in small boats.

Video: Avoiding Collisions (3:55)

Video: Preparing for Emergencies (4:46)

Preventing Running Aground

A vessel is grounded (runs aground) when it gets stuck on the bottom. Never assume that water is deep enough just because you are away from the shore. Also, don't presume that all shallow hazards will be marked by a danger buoy.

If you run aground while traveling at a high speed, the impact not only can cause damage to your boat but also can cause injury to you and your passengers.

Knowing your environment is the best way to prevent running aground.

- Become familiar with the locations of shallow water and submerged objects before you go out. Be aware that the location of shallow hazards will change as the water level rises and falls.
- Learn to read a chart to determine your position and the water depth.

What to do if your Boat Runs Aground

If you run aground, make sure no one is injured and then check for leaks. If the impact did not cause a leak, follow these steps to try to get loose.

- Don't put the boat in reverse. Instead, stop the engine and lift the outdrive.
- Shift the weight to the area farthest away from the point of impact.
- Try to shove off from the rock, bottom, or reef with a paddle or boathook.
- Check to make sure your boat is not taking on water.

If you can't get loose, summon help using your visual distress signals. Call for assistance using your VHF marine radio.

