MERIT BADGE SERIES

LIFESAVING

Scouting America

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"Enhancing our youths' competitive edge through merit badges"

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Note to the Counselor

Merit badge counselors are responsible for following the requirements, procedures, and techniques presented in this pamphlet and ensuring that each Scout earning the merit badge is able to demonstrate knowledge and skills at a level consistent with the requirements. In addition, counselors must ensure that all applicable Scouting America safety policies, including Safe Swim Defense and Safety Afloat, are followed during training, practice, and review.

Counselors for the Lifesaving merit badge must be registered members of Scouting America, have current training in Safe Swim Defense, and be approved by the local council advancement committee. Councils with an aquatics committee should utilize that committee to coordinate with the advancement committee for approval of qualified counselors.

All counselors should have formal training in the knowledge and skills indicated by the requirements, experience in teaching such skills to youth, and experience in identifying and managing risks associated with the activities involved. For the Lifesaving merit badge, an appropriate credential is current or previous certification as a Aquatics Instructor. Those trained as instructors for Aquatics Supervision: Swimming and Water Rescue or as lifeguard instructors (e.g., Scouting America, American Red Cross, or YMCA) are also qualified, provided they self-study and practice the material in this pamphlet. The council advancement committee may approve counselors with similar experience and training in knowledge, skill, safety, and instruction.

Several merit badges prepare the Scout for immediate service. First Aid is one; Lifesaving is another. In earning these merit badges, the Scout should learn how to perform this service

safely. The well-being of both the accident victim and the rescuer depends on it.

The requirements for the Lifesaving merit badge are designed to prepare a 12- to 14-year-old to respond safely and effectively to water emergencies. Each year, Scouts of all ages encounter such emergencies and successfully perform scores of water rescues. A Scout may actually be the best person on hand to respond.

As counselor, it is your responsibility to approve only those who fulfill the merit badge requirements. You should give each Scout a reasonable opportunity to retake any formal written or skill tests, and ideally continue to provide guidance until all candidates have earned the badge. Provided they are good swimmers, most Scouts who make a conscientious effort should earn the Lifesaving merit badge without too much difficulty.

At the very least, a Scout who is having difficulty with any element must be helped to understand why his or her performance is not yet acceptable. A misconception is often worse than no training at all. It is the responsibility of the counselor to ensure that each Scout knows and understands what he or she can safely and properly do in a rescue situation.

The techniques deemed proper are those outlined in this pamphlet. It is Scouting America policy that requirements be followed exactly as written. However, you have some flexibility in presentation and emphasis when more than one technique will satisfy a given requirement. For example, several types of rescue entries are discussed in the text.

The Scout should be shown and practice several options, but it is most important that he or she understands the basic concepts: not to jump or dive into water of unknown depth, to stay always aware of the victim's location, to move safely and quickly, and

to keep control of the rescue aid. If the Scout recognizes and understands those concepts, then he or she is much more likely to make a safe and effective entry in a rescue situation. It is not necessary to test the Scout on every entry discussed in the text to satisfy requirements 8, 9, and 13 for a "proper" entry.

This merit badge pamphlet presents a comprehensive discussion of concepts and techniques that the requirements alone cannot provide. Each instructor, regardless of experience, should read the latest printing of the pamphlet before beginning a course.

Use the text, along with the requirements, to construct a detailed course outline. Also, encourage each Scout to read and study the pamphlet. It helps if the troop, camp, or counselor maintains lending copies of the pamphlet and distributes them either before or during the first training session.

Because earning the Lifesaving merit badge involves swimming assists, the Scout is expected to have strong swimming skills before attempting the requirements. Use the swimming prerequisite to review each Scout's skills before accepting the Scout as a candidate for merit badge instruction. If a Scout has marginal swimming skills, weigh any commitment to provide remedial swimming instruction against that Scout's chance of success in the time available for instruction. Denying a Scout an immediate but inappropriate opportunity may better serve the overall aims of Scouting.

Offer training on a flexible schedule to a single buddy pair or small group, or on a more formal basis to a larger group at prearranged times. No definite time limits are established. The minimum time required for training is that which leaves the Scout prepared. Factors such as class size, participant maturity, number of instructors, and prior instruction in CPR will influence the time needed.

Most Scouts can adequately absorb the material in six 90-minute sessions or five two-hour sessions. For this age group, several short sessions over a week or two weekends are better than a single 10-hour day. Most of the time should be spent with in-water instruction, practice, and review. If available, a classroom setting can be used to cover concepts, CPR, and first aid. A suggested schedule for use at summer camp is presented in the *Aquatics Staff Guide* available for download at scouting.org/outdoor-programs/aquatics/forms.

Formal skills testing is not required; adequate performance during practice will satisfy the requirements. However, a final, basic skills test can be a valuable teaching aid. You also can assess and reinforce understanding by presenting participants with

simple "situation exercises." For example, while the rescuer's back is turned, place various rescue devices at the rescuer's disposal and instruct the victim(s) in how to act and where to go. Ask the rescuer to turn and respond to the given scenario. Praise positive performance and review it for other participants. If a different response would have been more appropriate, lead the rescuer to that conclusion with a series of questions and suggestions, and then congratulate the rescuer on his or her reasoning. These exercises should be designed for success and learning, not intimidation or failure.

The Lifesaving requirements cover a wide range of techniques based on the type of equipment available and the victim's condition. A deliberate progression of instruction is needed to prevent confusion. Emphasize simple, preferred techniques over complex skills. Clearly define the application of each exercise. Reviews at both the beginning and the end of a session reinforce understanding, particularly if the review involves discussion and/or presentation by the participants. Cognitive requirements may be completed either orally or in writing at any time during the course.

Base your instructional outline on material in this *Lifesaving* pamphlet. Other organizations offer excellent basic water safety and lifeguard courses that may supplement the Scout's training, but the goals of such courses generally diverge from those of the Lifesaving merit badge. Do not substitute outside course material for Lifesaving merit badge instruction.

Basic water safety courses generally stop short of in-water assists, particularly contact rescues of unconscious victims. Lifeguard courses train facility employees in water rescue skills based on the availability of specialized equipment, such as a rescue tube, that is often not available in a lifesaving situation. Lifeguard training also adds skills, such as backboarding, that are beyond the scope of the Lifesaving merit badge. Such skills are included in the Scouting America Lifeguard program.

The training that qualifies you as a counselor may have confined basic rescue techniques to use of a rescue tube. If so, thoroughly familiarize yourself with the material in this pamphlet. Work unfamiliar material into your teaching toolbox. Practice with another adult until you are comfortable with the skills and their range of application.

Boats are rescue tools available to the public but not addressed in courses for pool lifeguards. Similarly, the Lifesaving merit badge requirements do not call for proficiency in small watercraft. Various boating merit badges address that need. However, make a reasonable effort to incorporate more than

discussion into the "row" portion of "reach-throw-row-go." A demonstration with a canoe or kayak in a pool is often feasible.

Most of the requirements cover water rescue as an emergency response, but some of the prerequisite rank requirements and requirement 2 deal with emergency prevention based on an understanding of factors that lead to emergencies. To satisfy requirement 2, the Scout should have an understanding of how each point of Scouting America Safe Swim Defense contributes to swimming safety beyond the often cursory review required for rank advancement. It is highly recommended that each instructor and participant view the Safe Swim Defense training video, either online or from the AV-09DVD29 DVD.

The intent of requirements 15 and 17 is to reinforce skills and knowledge previously learned or to teach them for the first time. If the Scout lacks training in either first aid or CPR, then the counselor should teach the skills if he or she is qualified, or arrange training from a qualified instructor. Where Scouts have learned and practiced first-aid and CPR skills through rank advancement or other merit badges, the counselor should still review this information and apply it to the swimming and boating environment.

Scouts should be able to demonstrate that they have retained information learned previously, either by discussion or skills performance. Recent training in CPR by a recognized agency can be accepted as completion of requirement 15 only if the counselor feels the Scout's skills are satisfactory and need no additional reinforcement.

Suggestions for improvement are always welcome. Reviews of merit badge literature are conducted regularly. Please send suggestions to Pilots and Program Development, S272, Boy Scouts of America, 1325 West Walnut Hill Lane, Irving, TX 75038. If you prefer, you may email your comments to merit.badge@scouting.org.

Your contribution to water safety and youth development is greatly appreciated.

Scouting works because of volunteers like you. Thank you.

Requirements

Always check scouting.org for the latest requirements.

1. Before doing requirements 3 through 15, review with your counselor the principles of Safe Swim Defense.
2. Before doing requirements 3 through 15:
   (a) Earn the Swimming merit badge.
   (b) Swim continuously for 400 yards using each of the following strokes in a strong manner, in good form with rhythmic breathing, for at least 50 continuous yards: front crawl, sidestroke, breaststroke, and elementary backstroke.
3. Explain the following:
   (a) Common drowning situations and how to prevent them.
   (b) How to identify persons in the water who need assistance.
   (c) The order of methods in water rescue.
   (d) How rescue techniques vary depending on the setting and the condition of the person needing assistance.
   (e) Situations for which in-water rescues should not be undertaken.
4. Demonstrate "reaching" rescues using various items such as arm, leg, towels, shirts, paddles, poles.
5. Demonstrate "throwing" rescues using various items such as a line, ring buoy, rescue bag, and free-floating support. Successfully place at least one such aid within reach of a practice victim 25 feet from shore.
6. With your counselor's approval, view in-person or on video a rowing rescue performed using a rowboat, canoe, kayak, or stand up paddleboard. Discuss with your counselor how effectively and efficiently the rescue was performed.

7. List various items that can be used as aids in a "go" rescue. Explain why buoyant aids are preferred.
8. Correctly demonstrate rescues of a *conscious* practice subject 30 feet from shore in deep water using two types of buoyant aids provided by your counselor. Use a proper entry and a strong approach stroke. Speak to the subject to determine his or her condition and to provide instructions and encouragement.
   (a) Present one aid to a subject, release it, and swim at a safe distance as the subject moves to safety.
   (b) In a separate rescue, present the other aid to a subject and use it to tow the subject to safety.
9. Discuss with your counselor when it is appropriate to remove heavy clothing before attempting a swimming rescue. Remove street clothes in 20 seconds or less, enter the water, and approach a *conscious* practice subject 30 feet from shore in deep water. Speak to the subject and use a nonbuoyant aid, such as a shirt or towel, to tow the subject to safety.
10. Discuss with your counselor the importance of avoiding contact with an active subject and demonstrate lead-and-wait techniques.
11. Perform the following *nonequipment* rescues for a *conscious* practice subject 30 feet from shore. Begin in the water from a position near the subject. Speak to the subject to determine his or her condition and to provide instructions and encouragement.
   (a) Perform an armpit tow for a calm, responsive, tired swimmer resting with a back float.
   (b) Perform a cross-chest carry for an exhausted, responsive subject treading water.
12. In deep water, show how to escape from a victim's grasp on your wrist. Repeat for front and rear holds about the head and shoulders.

13. Perform the following rescues for an *unconscious* practice subject at or near the surface 30 feet from shore. Use a proper entry and strong approach stroke. Speak to the subject and splash water on the subject to determine his or her condition before making contact. Quickly remove the victim from the water, with assistance if needed, and position for CPR.
    (a) Perform an equipment assist using a buoyant aid.
    (b) Perform a front approach and wrist tow.
    (c) Perform a rear approach and armpit tow.
14. Discuss with your counselor how to respond if a victim submerges before being reached by a rescuer, and do the following:
    (a) Recover a 10-pound weight in 8 to 10 feet of water using a feetfirst surface dive.
    (b) Repeat using a headfirst surface dive.
15. Demonstrate management of a spinal injury to your counselor:
    (a) Discuss the causes, signs, and symptoms of a spinal injury.
    (b) Support a faceup subject in calm water of standing depth.
    (c) Turn a subject from a facedown to a faceup position in water of standing depth while maintaining support.
16. Demonstrate knowledge of resuscitation procedure:
    (a) Describe how to recognize the need for rescue breathing and CPR.
    (b) Demonstrate CPR knowledge and skills, including rescue breathing, on a mannequin under the guidance of a current CPR/AED instructor trained by a nationally certified provider.
17. With your counselor, discuss causes, prevention, and treatment of other injuries or illnesses that could occur while swimming or boating, including hypothermia, dehydration, heat-related illnesses, muscle cramps, sunburn, stings, and hyperventilation.


GUARD

Contents

To Help Other People at All Times

No Scouts BSA member will ignore a plea for help. However, the success of your response will depend on your knowledge and skills. The Lifesaving merit badge is designed to help you safely and successfully assist those involved in water accidents. Lifesaving is a serious undertaking and must be treated accordingly. You may seldom need to use these skills. But if you do, your ability could make the difference between a person's drowning and survival.

Preparation and Practice

Skills are best learned from demonstration and practice. Be alert to all that is said; your instructor will cover only necessary material. Read this pamphlet carefully and swim regularly until you can easily complete the required distance swim. Practice each skill slowly and deliberately before working on speed.

Rule No. 1:
Don't become
victim No. 2.

Rescuer Safety

The rescuer's safety is important in any emergency. In most emergency situations, you can minimize risk and perform a successful rescue. Some people drown in futile attempts to save others, but those would-be rescuers are usually frantic friends or relatives whose swimming skills are little better than those of the person in distress. They lack basic lifesaving training and act inappropriately.

After earning the Lifesaving merit badge, you should know when you can and cannot perform a safe rescue. If called upon, uphold your promise to help others at all times, but do it well. Do not risk injury to yourself when a rescue appears futile. Go for help rather than going into the water.

When practicing a rescue, do not use the word "Help!" Lifeguards and others may think there is real danger. Also, arrange a signal with your buddy that means "Let go; I need to catch my breath." Be sure that the "victim" is realistic; he or she should not chase after you in the water or in any way behave unlike a real drowning person.

The Big Picture—Preventing Tragedy

Breathing is essential for life. Drowning is a process of breathing impairment from submersion of the airway in a liquid. If the drowning process is interrupted quickly enough—within seconds—the victim may be able to resume normal breathing with no lasting health problems. A victim who is not breathing may be resuscitated with rescue ventilations within a minute or two of submersion, again without lasting harm. However, without quick intervention, the heart may stop in as little as three minutes, with permanent brain damage occurring in four to six minutes.

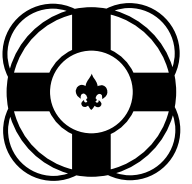
Even if someone is revived after a submersion incident, it is important for him or her to receive prompt medical treatment since lung function may have been compromised. It is also important to continue CPR until emergency medical services arrive because some victims, particularly those rescued from cold water, have recovered with no ill effects even after prolonged submersion.

Unfortunately, death or permanent disability is too often the result of a drowning process that could have been easily prevented or stopped. Enhancing your ability to prevent and safely intervene to stop the drowning process is the goal of the Lifesaving merit badge.

Major Topics

This pamphlet covers subjects in a specific order to help you follow the material in a logical progression:

- **Drowning situations.** There are both similarities and differences in common situations that lead to drowning incidents. Awareness of those may help you prevent and respond to events.
- **Drowning prevention.** The examples of drowning situations reveal common risk factors such as lack of supervision, lack of swimming ability, and unsafe areas. The Safe Swim Defense plan for safe swimming activities addresses those common risk factors.



- **Recognition.** Before responding to a drowning situation, you need to know that one exists. Too often, victims are not spotted until it is too late. That is one reason for the buddy system. Studies have shown that more than half of victims in guarded pools are first recognized by someone other than the lifeguards.

- **Assessment.** You need to evaluate how many people are in trouble, how urgently they need help, whether they can help themselves or need assistance, who at the scene is best qualified to render aid, and whether emergency medical services personnel should be summoned immediately.

- **Water rescue planning.** If you decide to act, you need to determine the safety of the scene and how to best perform a safe rescue using equipment and people at hand. The Reach, Throw, Row, Go progression guides rescue planning.

- **Rescue procedures.** How you perform a rescue will depend on the victim's condition, where the victim is, and available equipment. Some victims will require follow-up care after you get them to safety.

Scouts in Action

Almost as soon as Scouting began in the United States in 1910, the national office began to receive reports of lives saved by Scouts and leaders. At that time, water rescue training was just receiving attention. Those early reports were used to refine safe rescue techniques, such as the use of flotation aids, still in use.

Today, Scouts save approximately 100 people annually from drowning. Since 1947, *Scout Life* magazine has reported worthy true stories of Scouts in action. Excerpts from the "Scouts in Action" feature are used to illustrate selected topics in this pamphlet. "Scouts in Action" and "More Scouts in Action," the two series featured in the magazine, depict selected lifesaving stories. Some of these are available online, as well. If you have an opportunity to review the aquatics-related scenarios, consider the likely cause of the emergency, how it could have been prevented, and how you might respond in a similar situation.

Check out the online archives of favorite "Scouts in Action" at **scoutlife.org/scouts-in-action** and "More Scouts in Action" at **scoutlife.org/more-scouts-in-action**.

Drowning Situations

Various situations lead to trouble in the water. This section describes some of them.

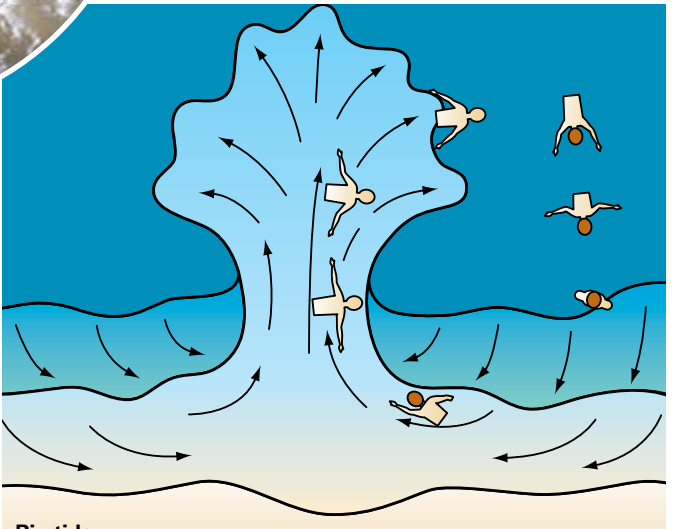
Drowning is a leading cause of death for 1- to 4-year-olds. Unsupervised toddlers near bodies of water, particularly backyard pools, are common victims. If they fall into the water, they can submerge within 20 seconds without crying for help.

People who have never supported themselves in deep water are in danger if they step into a hole in a lake, step over the edge of a drop-off at the beach, or slip off a float in deep water. Such victims are unable to move just a few feet to safety, reach for an aid, or call for help. Adults may struggle ineffectively for up to a minute.

Unaided drowning victims will soon lose consciousness. They may float momentarily at the surface, but are likely to sink partway or all the way to the bottom. Permanent brain damage and death may occur within minutes. Prompt rescue is essential, but finding a submerged victim in murky water is difficult.

Nonswimmers may be in peril as soon as they enter water over their heads. Other swimmers develop problems when they attempt to swim distances beyond their ability. Even a strong person can rapidly become exhausted when using a poorly executed crawl. At first, the person may only be tired and just need encouragement. However, panic can set in when the person becomes vertical in the water and struggles for breath.

Swimmers can also exhaust themselves and then drown trying to swim against a rip current. Avoidance is the best defense against a rip current, but swimmers caught in one should swim parallel to the shore rather than against the current. Even expert swimmers in calm, small pools may need rescue if they suffer a cramp, a heart attack, a stroke, a seizure, or other debilitating medical condition. The same is true for those impaired by alcohol or other drugs.



Rip tide

Extended breath holding is yet another reason a good swimmer may need rescue to prevent a fatal drowning. Hyperventilation, or taking several rapid, deep breaths, does not increase oxygen but rather decreases CO_2 in the blood. That delays the urge to breathe and can result in loss of consciousness when underwater. For that reason, breath-holding contests are not allowed during Scout swimming activities.

Swimmers who are injured may also need rescue. These situations vary widely, from allergic reactions to jellyfish stings to being cast against pilings by surf. However, the most common situation is head, neck, or spinal injury in those who dive into shallow water or into water with hidden obstacles. Injuries complicate rescue procedures.

Not everyone who drowns intended to enter the water. Hundreds die annually from boating incidents. A common situation is a fisherman, who may or may not be alcohol impaired, falling from a boat while not wearing a life jacket.

Paddlers, as well as swimmers, need to be careful in moving water, particularly near low-head dams. The water at the base of such a dam tumbles in place and can trap a person or boat. The action of the water is called a hydraulic, also known as a "drowning machine." Rescues should be done from shore.

Floods are major safety concerns. During hurricanes, more people die from high water than damage from the wind. If you are in a car when water starts rising, heed the advice of the National Weather Service: Turn Around Don't Drown®. Rescues in such situations often require professional, specially equipped swift-water rescue teams.

Especially when you can't tell how deep the floodwater is, it is best to play it safe and turn around.

Drowning Prevention: Safe Swim Defense

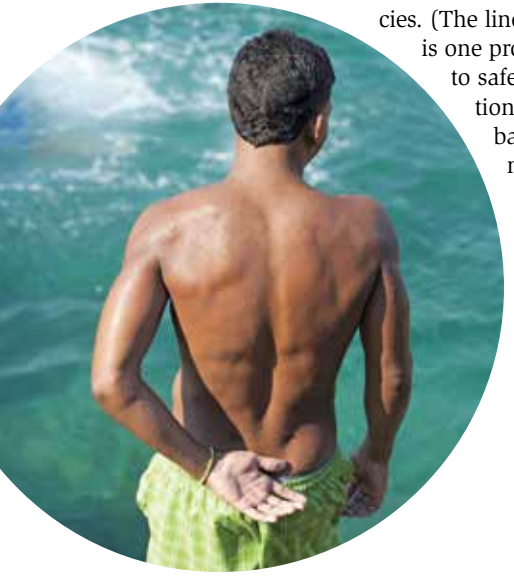
All swimming activity in Scouting is conducted according to the following Scouting America Safe Swim Defense standards. The drowning situations just discussed should help you understand why each item is important. As a lifesaver, you should consider accident prevention as important as rescue skills. You probably remember a condensed version of the Safe Swim Defense standards from Second Class requirement 5(a), but you should now be ready for a more complete understanding for Lifesaving merit badge requirement 2. Ideally, your merit badge counselor should arrange for you to view the same video used for adult leader training. For a full description of the standards, see the *Guide to Safe Scouting*.

1. Qualified Supervision. All swimming activity must be supervised by a mature and conscientious adult age 21 or older who understands and knowingly accepts responsibility for the well-being and safety of those in his or her care, and who is trained in and committed to compliance with the eight points of Scouting America Safe Swim Defense.

2. Personal Health Review. A complete health history is required of all participants as evidence of fitness for swimming activities. Supervision and protection should be adjusted to anticipate any potential risks associated with individual health conditions.

3. Safe Area. All swimming areas must be carefully inspected and prepared for safety prior to each activity. Water depth, quality, temperature, movement, and clarity are important considerations. Hazards must be eliminated or isolated by conspicuous markings and discussed with participants.

4. Response Personnel (Lifeguards). Every swimming activity must be closely and continuously monitored by a trained rescue team on the alert for and ready to respond during emergencies. (The line tender rescue you learned for First Class is one procedure that response personnel can use to safeguard unit swims. You will learn additional techniques for the Lifesaving merit badge.) The qualified supervisor, the designated response personnel, and the lookout work together as a safety team.



5. Lookout. The lookout continuously monitors the conduct of the swim, identifies any departures from Safe Swim Defense guidelines, alerts rescue personnel as needed, and monitors the weather and environment.

6. Ability Groups. All youth and adult participants are designated as swimmers, beginners, or nonswimmers based on swimming ability confirmed by standardized Scouting America swim classification tests. Each group is assigned a specific swimming area with depths consistent with those abilities.

7. Buddy System. Every participant is paired with another. Buddies stay together, monitor each other, and alert the safety team if either needs assistance or is missing. The safety team knows the number of buddies in the water and conducts buddy checks to make sure buddies are watching each other.

8. Discipline. All participants should know, understand, and respect the rules and procedures for safe swimming provided by Safe Swim Defense guidelines.

Victim Recognition

The first step in a rescue is recognizing that someone needs help. Often it is obvious. A capsized canoeist may be frantically swimming for shore while being swept toward rapids. People clinging to the top of a car swept off a low-water crossing may be shouting for help. Bystanders may be calling to someone floating facedown. But not all drowning situations are that dramatic or easy to spot. A child who appears to be playing may actually be in serious trouble. **It is important to know that not everyone in trouble will call for help or seem to be struggling.**

People in danger of drowning can be divided into categories based on their conditions. Categories include distressed versus drowning, active versus passive, and conscious versus unconscious. The labels are less important than the traits that will help you to recognize an emergency and plan how to respond. Also note how the type of victim relates to drowning situations discussed earlier.

Subjects in Danger

Swimmers and nonswimmers alike may be caught in hazardous situations as the result of a fall into treacherous water, a boating accident, a car crash into a lake, or a similar incident. Details can vary greatly, as will rescue responses. Some victims may make it to shore unaided and the rescuer's responsibility becomes one of follow-up support, first aid, and transportation. In other cases, a rescuer can help from shore. In still others, the lifesaver's only safe option is to immediately seek aid from trained rescuers with special gear. Remember, seeking help is as much a lifesaving technique as any other. Success is the final measure of any rescue. If you can't safely perform a rescue with resources at hand, then quickly seek help from those with more training and better equipment.

Tired Swimmer

Tired swimmers may ask for help. Swimmers in this situation might be clinging to a boundary line, trying to float on their back, or making little progress using short bursts or a weak stroke. They lack, or think they lack, the energy to make it to shore and simply need encouragement or a helping hand. Tired swimmers are calm, will respond to questions, and should cooperate with the assist. Aid to tired swimmers prevents rather than interrupts the drowning process.

A tired swimmer is responsive and able to aid in the assist.

Distressed Swimmer

Swimmers in distress are normally vertical in the water and show various degrees of anxiety or panic. They may be poor swimmers who have exceeded their abilities. If caught in a rip current, they may first become exhausted swimming against the current and then become frightened. Sudden medical problems such as a cramp or asthma attack may also cause a conscious swimmer to need help. Distressed swimmers make little or no progress in the water but may struggle enough to keep their face out of the water. They may call or wave for help. If they could level off and apply the same energy to swimming, they might be able to reach safety on their own. They may act on clear instructions from a rescuer and reach for an aid as it is presented. Nonbuoyant rescue aids, such as a shirt or rope, may be used. Once help has come, they may grow calm and even assist by following instructions to assume a prone position and kick.

A distressed swimmer may call or wave for help and may reach for an aid.

However, the rescuer should remain alert and wary, and should avoid contact. Victims may try to grab the rescuer in an attempt to remain above water. It may be some time before they return to a normal state of mind and behavior. The longer distressed swimmers remain in trouble, the more likely they are to show the symptoms of an active drowning victim.

Active Drowning Victim

Active drowning victims are experiencing the beginning of the drowning process prior to inhaling water, becoming unconscious, and submerging for a prolonged period. Like distressed swimmers, these victims are also frantic or distraught. However, the level of mental "distress" is not the important factor. Active drowning victims lack the ability to make deliberate motions to stay afloat and will generally go under within 20 to 60 seconds. They can't call or wave for help; they must be recognized by their behavior. They are usually vertical in the water. They may have their head thrown back with arms extended to the side and pressing down or flapping. The arm action may resemble that of climbing a ladder. There is no effective leg movement. Their head may bob below the surface. Their struggle might continue momentarily under water. They probably cannot respond to commands or reach for nearby rescue aids. During the assist, they may grab a rescuer who makes contact and resist horizontal tows. Respond quickly, and use buoyant aids for support.

Toddlers who lose their footing or fall into deep water may be horizontal in the water rather than vertical due to the weight of their heads. They may briefly look like they are trying to "dog paddle."

The active drowning victim cannot call or wave for help and cannot reach for an aid.

Passive Drowning Victim

Various situations lead to victims who do not struggle. Unaided, active drowning victims will soon lose consciousness and become passive. Immersion in cold water can numb and weaken swimmers, eventually causing unconsciousness even if they are wearing a life jacket. Other swimmers may black out with little or no warning because of a diving injury, hyperventilation, heart attack, stroke, seizure, drunkenness, or drug reaction.

Unconscious victims may float facedown at the surface or sink partway or all the way to the bottom. Spotting such victims in murky water may be difficult. Rescuers must make physical contact, but the victims will not resist. Speed and resuscitation are critical. In every instance, anyone who has lost consciousness in the water will need medical evaluation. Summon emergency medical help as soon as possible.

A passive drowning victim probably is not breathing and will need medical assistance; a contact rescue is likely.

Impaired or Injured Swimmer

A water rescue may become more complex if victims are injured or suffering from a nondrowning medical emergency. Cramps, strokes, seizures, or stings or bites from marine life may cause otherwise good swimmers to have trouble staying afloat. Diving into shallow water or being hit by a surfboard can cause head and spinal injuries. Cuts and broken bones can result from boat collisions, water-skiers hitting objects, vehicles entering the water, boats capsizing in rapids, or surf casting swimmers against pilings. Gasoline explosions on motorboats can cause burns. Anglers might become entangled in hooks.

If the person is passively floating facedown or is submerged, rescue is the same as any other passive drowning case. Breathing and circulation are the primary first-aid concerns, and emergency medical services should be called as soon as possible.

If the person is still conscious, rescue procedures will often be similar to those for other conscious victims, but keep general first-aid rules in mind after you move the person to safety: *Treat the most serious condition first, do no further harm, and quickly summon help if needed.*

The rescue of an impaired or injured swimmer generally is similar to those for other active or passive victims, although some situations may require special response.

REACH–THROW–GO FOR HELP

Use these options in dangerous situations when it is unsafe to be on or in the water.

Rescue procedures may need modification for some situations. If the person is having convulsions, you will need to keep his or her face out of the water. Special procedures are also needed if there are signs of head, neck, or spinal injury. Water rescue for victims of spinal injury will be covered later.

A phone is important equipment for any emergency.

Planning a Rescue

The steps in any rescue follow four A's. Note that action should not be taken until you accept responsibility and form a plan of rescue that is safe for both you and the victim.

The first step is **Awareness,** that is, recognizing the need, which was covered in the previous section.

The second step is **Assessment.** How many victims are there, how urgent are their needs, what safety hazards exist, who is best qualified to make the rescue, what items are nearby that can be used during a rescue?

The third step is **Action.** Make and execute a plan based on your assessment. Decide which method of rescue—**Reach–Throw–Row–Go**—is most appropriate. Gather equipment to be used in that rescue and determine if there are others present who can help. Direct someone to call emergency services if the victims are facedown or injured.

The final step is **Aftercare.** If needed, provide first aid until medical help arrives. If first aid and medical evaluation are not needed, reassure victims and make sure there is someone who will take responsibility for any minors involved.

Steps for Planning a Rescue

Awareness	Recognize the need.
Assessment	Who, what, where. Weigh who responds.
Action	Take responsibility. Develop a safe plan. Execute the plan.
Aftercare	First aid as needed. Release to reliable party.

Accepting Leadership

If someone already has started a rescue, respond only if you are clearly in a better position to help the victim; for example, if you are much closer. Otherwise, consider how to help without interfering. Make sure emergency help has been called if you think it will be needed. If the victim is in a lake and might go under before help arrives, pinpoint the person's position against landmarks. You also may keep curious bystanders from getting in the way.

If no one is attempting a rescue, check that someone in authority—a lifeguard, park ranger, or Scout leader—hasn't yet noticed the problem. Alert that person and follow instructions. Shouting for help is often the first action you should take.

If no one else takes responsibility, then it is up to you. Don't hesitate to act just because others, including adults, are milling around undecided. They might not know how to respond. In that case, proceed with planning the rescue, including asking bystanders to call for aid, get equipment, help launch a boat, or any other simple task.

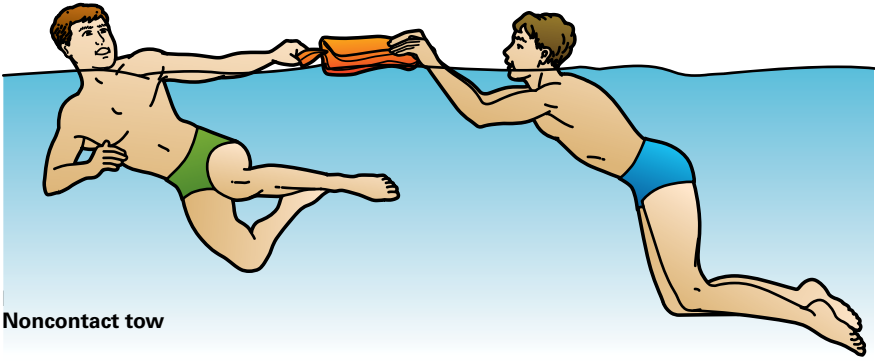
Selecting a Rescue Technique

Don't waste time. Many victims need assistance quickly—the drowning process may take only moments.

Summoning help, gathering equipment, and getting into position to perform a rescue in hazardous conditions may take some time. Rescuer safety is a major concern, not only because of danger to the rescuer but also because an injured rescuer will no longer be able to help the person in trouble. Do not rush the

planning process. If the problem exceeds your abilities, go for help. The skills you learn for the Lifesaving merit badge are most appropriate for rescues in safe conditions.

Fortunately, rescues in calm, safe waters are relatively simple to rapidly plan and execute. The goal for active victims is to quickly provide support so they can breathe without stress. Various rescue aids are available to help support the person. Rescuer contact with the victim can often be avoided as many victims will be able to grasp an aid if it is placed within their reach.



Noncontact tow

The goal for passive victims is to move them to safety so that resuscitation can be started as soon as possible. The rescuer must grasp unconscious victims to provide support.

Order of Rescue Methods

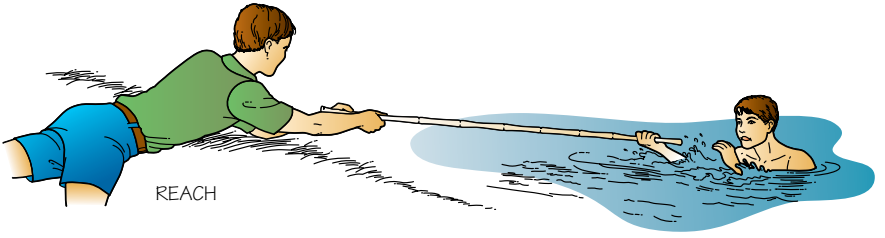
The order of preference for rescue techniques, from simple to more complex, is easy to remember:

REACH–THROW–ROW–GO

Each will be covered in detail. The method you select will depend on the victim's condition and distance from shore, available aids, and the condition of the water.

Reaching, Throwing, and Rowing Rescues

Reaching, throwing, and rowing will often be the safest and most effective rescue types.



Reaching Rescues

Reaching rescues are safe, simple, and effective. Poor swimmers may get into trouble as soon as they enter water over their head. That is likely to be close to the edge of a pool or near a dock. If you are out of the water and spot someone in trouble, lie down at the edge, extend a hand, and pull the victim to safety. This simple procedure will quickly and safely save a life. However, conscious victims often will stop their own efforts to remain afloat once they grab a rescuer's hand. The extra weight can pull an unprepared rescuer into the water. With reaching rescues, always lie down first or otherwise brace yourself.

If there is something firm to grasp, such as a pool ladder, you can extend the reach of your arm or leg by entering the water while maintaining a firm grip on shore. However, first see if there is something nearby, such as a shirt, towel, pool noodle, or other aid to extend your reach. Note that some conscious victims will not be able to reach for a device, so position it to contact the victim's hands or arms.

Provide verbal instruction and assurance to all conscious victims.

If you are using a pole, don't thrust it at the victim like a spear. Instead, sweep it from the side under the victim's arm. Always firmly tell victims in clear, simple words what you want them to do, for example, "Grab the pole."

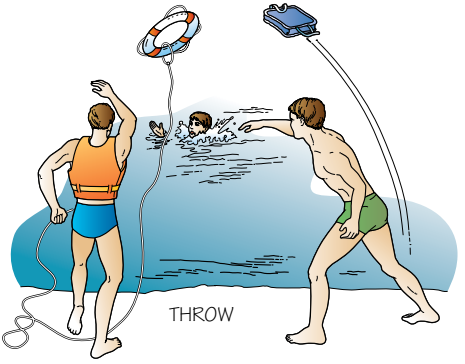
Unconscious victims will be unable to grab a pole or other extension aid. Many hotel and apartment pools will have poles available with a hook or loop on the end. Those can sometimes be used to snag unconscious or unresponsive victims to pull them to the side.

However, rather than try to wrestle someone from the bottom with a shepherd's crook, it is generally better for a good swimmer to do an in-water Go rescue instead of a reaching rescue for passive victims beyond arm's reach.

In some natural bodies of water, there often is a gradual increase in depth away from shore. Victims may be found near a transition from standing depth to deep water. A rescuer in those situations may wade partway out with an extension device to do an in-water extension assist. A human chain may also be an option. However, only good swimmers should attempt either effort.

Water flowing in a recently filled irrigation canal caught the attention of a 4-year-old girl. A Scout saw her fall in. He ran over, lay on the bank, and grabbed her just 4 feet from where the water was swept into a debris-laden culvert.

Throwing Rescues



For victims beyond your reach, an aid may be thrown from shore. A floating aid with a line attached is best because it provides support and allows you to pull the victim in. However, floats and lines may also be used by themselves.

Always keep track of a victim's location, especially if the water is murky or the person is far from shore. If the victim submerges, you need to know where he or she went down. Work with a partner if possible. One person can act as a spotter while the other gathers equipment and performs the rescue.

Aim carefully to toss the device within the victim's reach without hitting him or her in the head. Allow for wind and current. Shout to get the person's attention before the throw and then provide simple instructions.

Always communicate with the victim. Always keep the victim in view.

A throwing rescue is most appropriate for tired swimmers and distressed victims. Drowning victims who are active will not be able to reach for the device or move even a few feet if it lands nearby. Throwing assists will not work for unconscious or impaired victims who cannot grasp the aid.

The easiest way to throw a rope is to use a floating line stuffed in a small sack. These throw bags are often carried on paddle craft and are sometimes found around pools. Make sure the neck of the bag is not cinched. Hold the end loop in one hand and throw the bag with the other. The line will play out of the bag. If you miss your first toss, then use the rope as a regular heaving line rather than restuffing it. Leave a bit of water in the bag when throwing it again.

Don't use a wrist loop if you are throwing the line from a moving boat.

If you are using a throw bag for a victim caught in a river current, have him or her roll over on the back after grasping the line and hold on as he or she swings in an arc toward shore. Be prepared for considerable force once the line becomes taut. You may need to belay the line around a stout tree or large rock, or have others help you hold it. Be sure that you can release the line if you are about to be pulled in or if the victim gets tangled and needs the line slacked.

To coil the line for a right-handed throw, place your left hand on your left knee and stretch the line to the full reach of your right arm. Then return the line from your right hand to your left hand to form a loop. If you leave your left hand fixed to your knee and reach as far as possible each time with your right hand, all of the coils will be the same size and less likely to tangle when thrown. Reverse the directions for a left-handed toss.

If you are coiling a heaving line without a float or monkey fist at the end, you will need to separate the line into two parts: one coil is thrown and the other feeds the line. The weight of the thrown coil helps make an accurate toss. One way to divide the rope is to gather the first few loops with the index finger of the hand on your knee. Then coil the rest of the line on your remaining fingers.

You also need to avoid tossing the free end of the line into the water. An easy way to do that for both a heaving line and the line on a ring buoy is to tie a bowline in the free end and slip it over your wrist. Be sure the loop is large enough that your hand can easily slip free if needed.

Many ring buoy lines have a float or "lemon" at the end. The rescuer steps on the line just prior to the toss. A lemon is often recommended to prevent a person who can't swim from being pulled into the water. However, it is more cumbersome to use than a wrist bowline. In an emergency, use the end of the line as you find it.

Accurate use of a heaving line or a ring buoy with a line attached takes practice. One concern is management of the rope to keep it from tangling. The line for some ring buoys is stored in a bag or a canister, but it is common for the line to be kept in a loose coil.

To throw a heaving line or ring buoy, step back with the leg on your throwing side, swing your throwing arm back, and toss the coil or buoy underhand to the victim. Grasp a buoy through the center of the solid part—not one of the side lines.

Release the coil or buoy when your throwing arm is about level and still moving. If you release too soon, the aid will hit the water just in front of you. If you release too late, the aid will travel up rather than out. Practice is needed for consistent accuracy.

Active drowning victims cannot reach for aids.

Aim to place a heaving line over the victim's shoulder and tell the person to hold on. You will need to pull in the line fast enough to keep the person up, but not so fast you jerk the line from his or her grasp. If you miss, quickly recoil the line and try again.

Throw a ring buoy beyond the victim and then use the line to pull the buoy into the victim. If you miss, quickly pull the buoy back for another try. Drop the retrieved line at your feet—you do not need to recoil it for another toss.

When the victim grabs the line or buoy, pull in the line hand-over-hand. Cross your palm over the line, thumb inward, for a secure grip.

Rowing Rescues

Boating incidents contribute significantly to drowning and other injuries in the United States. Numerous boating incidents in small open motorboats on inland waters involve capsize or passengers falling overboard. Fatalities also occur when paddle craft are used. According to the American Canoe Association, 85 percent of canoeing victims and 48 percent of kayaking victims were not wearing life jackets. Unfortunately, they could not swim well enough at the time to save themselves.

Small-boat skills are not included in the Lifesaving requirements. That is not because boat rescues are unimportant; rather, the skills for each craft are beyond the scope of this merit badge and vary more than can be included in this pamphlet. The Canoeing, Kayaking, Motorboating, Rowing, Small-Boat Sailing, and Whitewater merit badges all offer opportunities to learn boat rescue skills.

Boat rescues are appropriate for any type of victim. In essence, you are using a floating platform to get close enough for reaching and throwing assists. A boat rescue can be both faster and safer than a swimming assist. It is the best way to reach multiple victims who are far away and may provide a platform for rescue breathing or CPR without having to wait until the victim is brought to shore. It offers protection from currents, waves, and cold water.

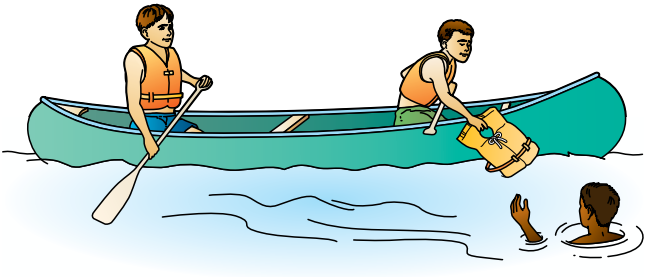
Although you may already be familiar with some of the concepts discussed in this section, you should study it carefully and pay close attention to demonstrations or videos provided by your counselor. You never know when the information will be useful.

A ski boat hit a small sailboat, knocking the occupant unconscious and cutting a gash in his back. Two Scouts in another sailboat pulled him aboard and began rescue breathing on the way to shore.

Even if you have never rowed a boat, paddled a canoe, or started an outboard, you may still be able to use a small boat to assist a swimmer or boater in need. If conditions are safe, get in the front of the boat and paddle, stroking first on one side and then the other. That will allow you to make headway in slight wind or current when you might otherwise be shoved off course.

Consider the following for rescues from boats.

- If the boat is large enough, take at least two rescuers rather than going alone.
- If only single-person kayaks are available, consider launching two kayaks for the rescue rather than one.
- Take extra paddles or oars and flotation aids to use as reaching and throwing devices as you approach.
- Keep the victim in sight at all times.
- Shout encouragement and instructions to the victim.
- Avoid letting active victims grasp the sides of small boats that might capsize.

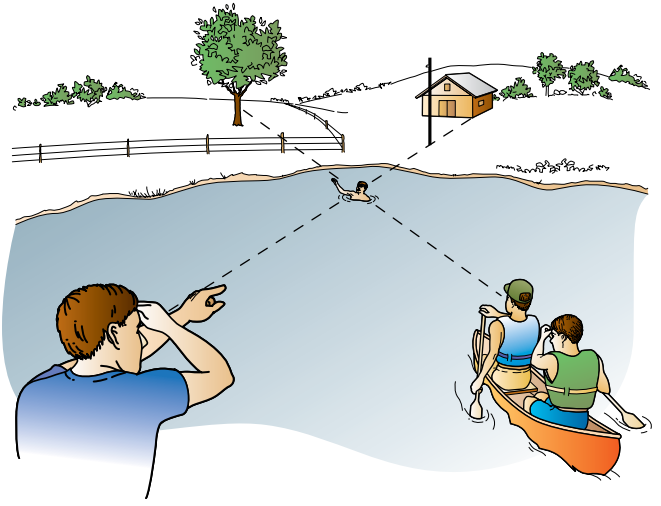


- With motorboats, cut the engine before the final approach to avoid injuries from the prop.
- If you are the only rescuer, carefully consider options before leaving the boat to reach a submerged victim. Even a slight breeze may blow the boat away faster than you can tow the victim to it.

Pinpointing a Victim's Location

Always watch the victim as you approach, in case he or she submerges. The farther away you are, the harder it will be to keep track of where the person went down. As you approach, line up the victim with two marks on the shore, a shorter one in front of a taller one. If you later become confused about the victim's location, you will know that he or she was near the line defined by the two objects.

Two fixed points are required to define the line. The two points can be part of the same object—the front and back of a car, for example. If you line up the victim only with the boat and one object on shore, you can swing off course after the victim disappears. The only sure way to pinpoint a location on the water is for two or more people to align objects with the victim from different locations. The spot where the lines of sight cross is where the person went down. You should serve as a second spotter if someone else has already begun a rescue.



How to take a bearing

Keep your eye on the victim.

Swimming (Go) Rescues

The final option in the order of methods of rescue, following reach, throw, and row, is go. This can mean two different actions. Either you go for help because the rescue is too difficult or dangerous to attempt alone, or you go into the water to perform a swimming assist, ideally using a floating aid.

Swimming assists can be divided into two classes depending on the need to touch, or contact, the victim.

Go = Seek help **or** enter the water if safe to do so.

In **noncontact rescues,** the victim grasps the rescue aid you provide. Noncontact rescues are the first choice for active victims. Rather than throw a rescue aid, you take it to the victim.

In **contact rescues,** you grasp the victim and the aid. Contact rescues are normally required for unconscious victims.

A Scout and his uncle were taking part in a precamp workday when they heard a call for help. They took a boat out to where a victim had submerged. With the help of another swimmer, they conducted a quick in-water search, found the victim, brought him aboard the boat, and returned to shore. The Scout was the only person at the scene trained in CPR.

Each type of rescue technique discussed in this pamphlet has been more complicated and has required more skill than the one discussed before. Swimming rescues are generally more complex than reaching rescues, and you likely will need to make several choices as you plan your action. An overview of the complete process is provided, followed by step-by-step details for choices needed in different situations.

Recall the four A's appropriate for any rescue: *Awareness, Assessment, Action,* and *Aftercare*. After you decide that an in-water rescue is the appropriate action, noncontact and contact rescues follow the same steps:

- Preparation (equipment selection, calling for help)
- Entry
- Approach
- Providing support
- Moving to safety
- Removal from water

Water Rescue Procedure for Active and Passive Victims

Getting to the victim, that is, choices for entries and approach strokes, is similar for both noncontact and contact rescues. How you complete the rescue differs for active and passive victims.

Active victim

Passive victim

1. Preparation—have someone call 911 for passive victims.


2. Enter the water safely with preselected equipment.


3. Approach rapidly, keeping victim in sight.


4. Provide support, speaking to the victim as appropriate. Allow active victims to grasp aid. You will need to grasp passive victims.

5. Move to safety—the closest safe exit may not be where you entered.

6. Assist or remove from water.

7. Provide care as needed.

Equipment Selection

Equipment choices will depend on the situation and location. Buoyant items are preferred for swimming rescues.

State laws often require owners to post rescue aids, such as shepherd's crooks and ring buoys, at unguarded hotel and apartment pools. Home pools also should have rescue devices close at hand.

Recreational swimmers often use a variety of buoyant items, such as swim tubes, air and foam mattresses, kickboards, and foam rods or noodles. Other flotation aids such as life jackets, ring buoys, and cushions will be on hand at marinas and on float trips.

In a pinch, use a nonbuoyant item, such as a towel or the clothes you are wearing. When you have a choice of aids, weigh the time needed to reach a distant aid against your ability to use a less suitable item nearby.

If you are wearing a life jacket, leave it on and carry a second flotation device. If you have only one life jacket, consider the victim's condition. If the victim is active, it may be best to carry the life jacket and push it to him or her for support. If the victim is unconscious near the surface, it will be easier to tow him or her if you wear the life jacket.

Lifeguards typically use either rescue tubes or rescue buoys and may not practice with alternative items. These are also excellent aids for volunteer rescuers who happen upon a situation where professional lifeguards are not on duty. However, the lay rescuer needs to be ready to use other devices because these may not be available.

Disrobing for Rescues

A swimming rescue may require a lot of energy. Swimming while supporting another person, even with a floating aid, can be exhausting, and speed is needed if the victim is not breathing. Discard heavy clothing, such as a jacket and boots, before you enter the water. The time this takes will be easily regained through your increased ease of swimming.

How much to discard depends on the situation. If an unconscious victim is floating in a small shallow pool, time is critical and the distance to safety may be only 6 feet or so. In that case, you might not remove as much as you would when facing a long approach swim. If the shore or water bottom is rough or cluttered, it may be best to have shoes on.

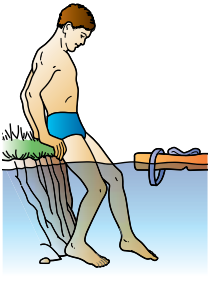
If you are dressed for cold weather, consider whether it is safe to enter cold water, which can be deadly in just minutes.

DANGER! Avoid swimming rescues in very cold water.

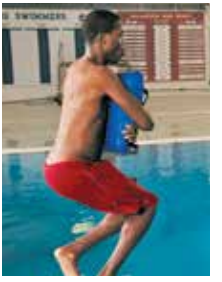
Entries

Carefully consider the best location to enter the water. If you can get closer to the victim by first running along the shoreline or edge of a pool, then do so. Take care not to trip or fall. Also keep watch on the victim. If the bank is irregular or covered by dense vegetation, you may need to enter from a clear area that could mean a longer swim. In lakes, look out for weeds or submerged trees. In rivers, allow for current and enter upstream of the victim.

Beach entry



Ease-in entry

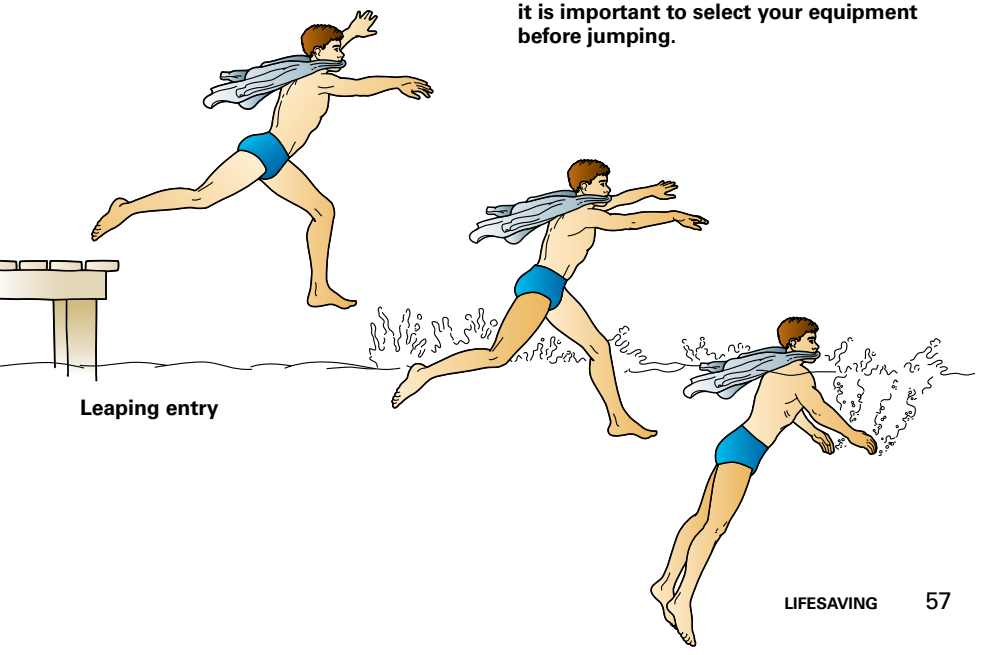


Compact jump

You can walk, run, slide, or jump into the water. Choose an option that is safe for the conditions; a head-first dive is seldom a good choice. Also avoid jumping from heights. Do so only for heights less than you are tall and also if you know the water is deep and clear of submerged objects. Otherwise, climb lower. You can hold your rescue aid to your chest or to the side, or throw it into the water ahead of you.

The leaping entry or stride jump is good for entering deep, unobstructed water from low heights because it allows you to keep the victim in sight. Begin as if you were trying to reach the victim in one giant step. Spring outward while leaning slightly forward with your arms outstretched. Move out, not up. Snap your legs together as they enter the water. Catch the water on your chest and push down with your arms to keep your head above water. It takes practice to properly time the kick and the downward movement of the arms.

Whether or not your entry is from a jump, it is important to select your equipment before jumping.



Leaping entry

Approaches

The approach will generally be in a straight line from the entry point to the victim. Always try to keep the victim in sight. Adapt your swimming stroke to the type of aid you are carrying, the distance, and the condition of the water.

A head-up breaststroke is often appropriate, although any other stroke may also be used. Pace yourself if the distance is great.

When approaching an active victim, give instructions and encouragement and carefully close the final distance to avoid being grabbed. If the victim appears passive, shout and splash water from a distance to confirm.

Providing Support for Active Victims

Flotation Aids

The preferred option for an in-water rescue of an active victim is to avoid contact and provide support by pushing a flotation device within the grasp of the victim and releasing it. The flotation aid must be buoyant enough to support the victim and the victim must be conscious and able to grasp the aid.

Tired swimmers and some distressed victims will reach for the aid as you approach, but victims in the first stages of the drowning process will be unable to reach for the aid even if they know it is there. You may need to push the float under the victim's arms, into the chest, or into contact with the hands.

If the float is long and narrow, like a rescue tube, noodle, or surfboard, swing it to the victim from one end or push it to the victim sideways. Victims are more stable with their arms draped over such a device than trying to hold it in line with their body.

Provide clear, simple instructions throughout the assist, such as "Grab this," "Hold on," "You're OK," or "Follow me."

If the victim is unable to move to safety on his or her own, explain clearly that you will grasp the aid and pull the victim to shore. The victim will generally be more comfortable with his or her head up rather than on the back. Use a sidestroke for the tow if you can control the float with one hand. Use an elementary backstroke kick to do the tow if you need to hold the aid with both hands.

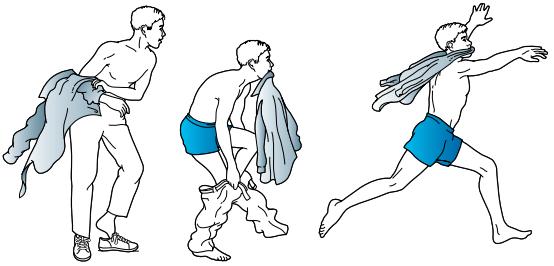
In a small pool, the closest point of safety may be behind the victim. In that case you can push on the aid to move the victim to the side. As always, tell the victim what you are going to do and continue to provide encouragement.

Nonbuoyant Aids

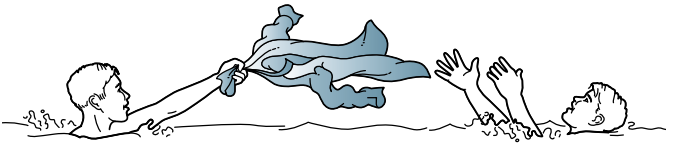
Buoyant flotation aids are preferred for in-water rescues of all types of victims. However, there may be situations when such a float is not available. Second choices for rescue aids include soft extension items such as towels, shirts, or short pieces of rope. Other options include short rigid devices, such as a paddle, which might float but without sufficient buoyancy to hold the person's head above the water.

Use of such aids requires the victim to grasp the device while you tow him or her with sufficient speed to keep his or her head out of the water. These options are therefore more appropriate for tired swimmers or cooperative distressed victims than those unable to reach for the device when you extend it to them.

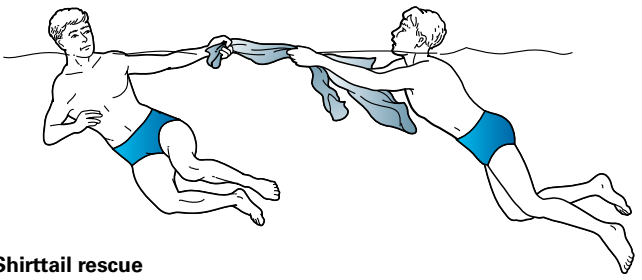
The following steps for a shirttail rescue illustrate the use of a nonbuoyant aid.



Remove your shoes while unfastening your pants. Run in place to work your pants down while removing your shirt. Watch the victim rather than the buttons. Step out of your pants and don't fuss with socks.



Safely enter the water, approach holding the shirt in your teeth, and stop before reaching the victim. Flip the shirt over the victim's shoulder and tell the person to hold on. Use a sidestroke to tow the victim to safety, taking care not to jerk the shirt from the victim's grasp.



Shirttail rescue

Avoiding Contact

In-water contact rescues of active victims can be dangerous. Double drowning incidents can easily be found in news reports documenting failed rescue attempts when a poor swimmer attempted to wrestle a victim to safety. Those events could often have been avoided had a good swimmer responded with a flotation aid.

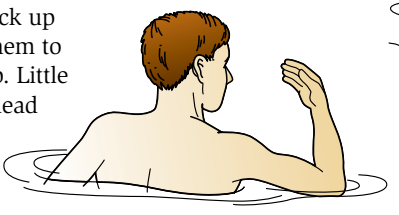
There are, however, a few situations when a trained swimmer might consider a contact rescue of an active victim.

- A calm person asks for help because of fatigue, cramps, or another problem. If you must enter the water to help such a person, take a buoyant aid with you. However, if you are already in the water, it might take too long to retrieve an aid. Even then, it may be possible to lead the victim to safety without contact.
- Some conscious victims will be unable to grasp or keep a grip on a rescue aid, particularly if it is nonbuoyant, because of rough water or a medical problem such as a stroke or seizure.
- The victim of a spinal injury may be conscious but unable to grasp an aid. Conscious or not, all spinal injury victims require special handling techniques that involve direct contact. (These are covered later under "Spinal Injury Management.")
- A small child or an infant may fall into a small, shallow backyard pool where you are swimming. If you are significantly larger than the child, a quick contact rescue may be an effective option with little risk. That would not be the case for a large adult in trouble.

Remember Rule No. 1: Don't become victim No. 2.

Lead-and-Wait Tactics

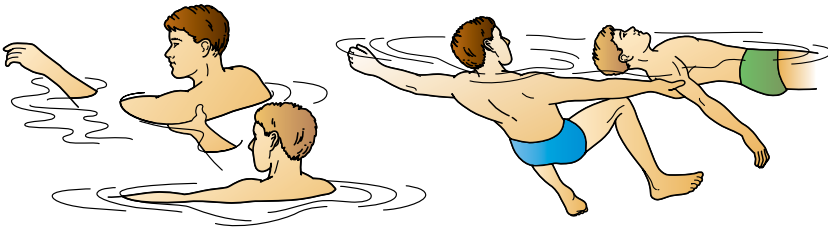
If you are faced with a tired swimmer or panicked victim and have no equipment, first try to talk the person in. If such swimmers can keep their head above water, they can swim—they just aren't making the right motions. Tell them to level off and kick toward you. If they do not follow your instructions, they may at least move in your direction. If they do, keep encouraging them as you back up toward shore while telling them to come to you so you can help. Little by little you may be able to lead them into shallow water without making contact.



If an active victim will not follow you to shore, back off and wait. The person may become more cooperative as he or she tires. As long as the victim can keep his or her head above water, the water is warm, and no currents are carrying you toward danger, you are not forced to act. Stay close enough to place the victim in a tow if it becomes necessary.

Contact Assists for Active Victims

In rare cases you may need to provide assistance to someone by supporting them without a flotation device. One such circumstance is if you and others are caught in a rip current and some of the party become increasingly tired trying to swim out of the current parallel to shore.

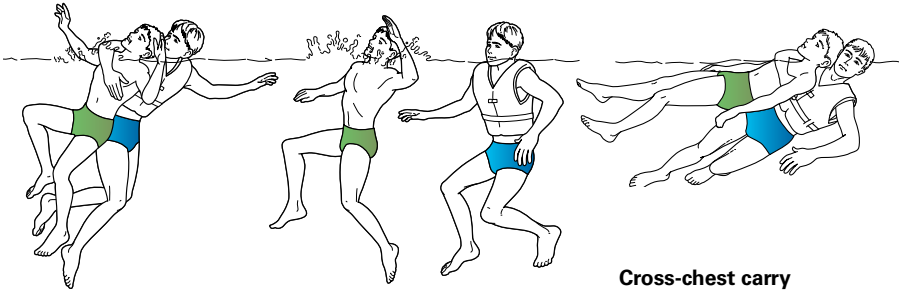


Underarm swim-along **Armpit tow**

For short distances, you can aid a cooperative tired person swimming on his or her stomach by swimming alongside and grasping the upper arm.

If the person is trying a restful backstroke, a single armpit tow is appropriate.

If the underarm swim-along or armpit tow won't work because of waves or other circumstances, a cross-chest carry is another option.



Cross-chest carry

Both the armpit tow and cross-chest carry are also used for unconscious victims and will be described more fully in that section. A scissor or whip kick is used for either towing method, and both tows may require a strong initial motion to move the victim from vertical to near horizontal.

Before you get close enough to touch a tired swimmer, be sure to tell the person what you are going to do and how you wish him or her to help. If the person is unable to respond, reconsider your options.

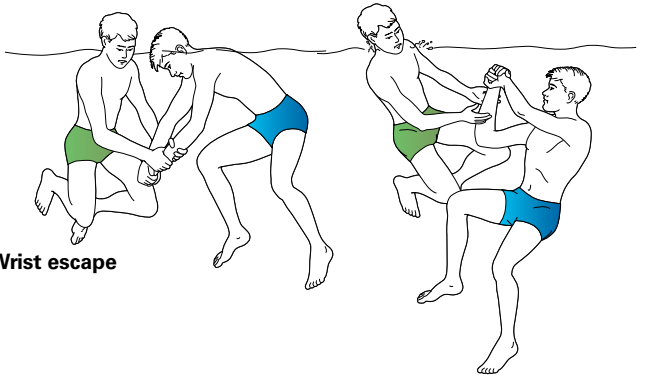
If the person panics and you feel you are losing control, let go, get away, and try something else.

Defenses and Escapes

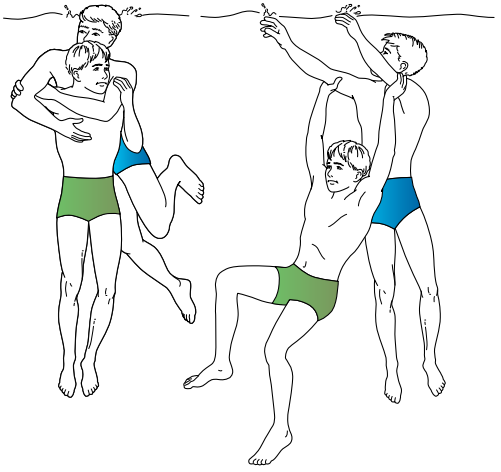
If you approach victims properly, you shouldn't need to struggle with them. If they reach for you rather than your rescue aid, let go and back off. Don't forget lead-and-wait options. But assume for the sake of practice that a victim manages to grab you. Remain calm. You should be able to quickly free yourself.

Drowning victims want support to keep their head clear of the water so that they can breathe. They are not trying to purposely hold you beneath the water. If a drowning person reaches for or grabs you, your first defense is to go under, fast. The victim will likely let go since he or she is trying to stay up, and will certainly will not swim down after you.

Wrist Escape. If a victim grabs your wrist, you have two options. If the person is small and safety is near, let him or her hang on while you quickly tow the person to shore. However, you can also break free. If a victim grabs your wrist with only one hand, break the hold by quickly jerking your wrist against his or her thumb. If the person grasps your wrist or forearm with both hands, you may need to apply extra force. Push down to pull the victim lower in the water. Make a fist with your "confined" hand, grab it with your free hand, and jerk them both upward.

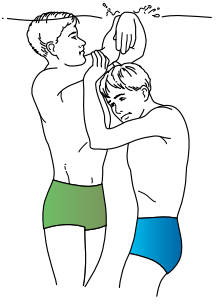


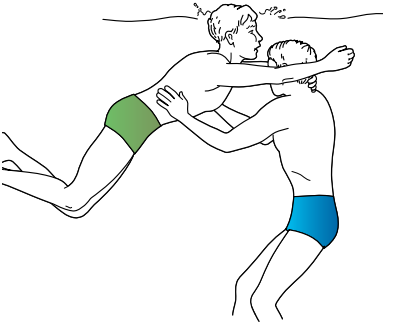
Wrist escape



Rear head-hold escapes

Rear Head-hold Escape. If a victim grabs you around the neck or shoulders from the rear, take a quick breath, tuck your chin to either side, raise your shoulders, and submerge both yourself and the victim by using the arm motion of a feetfirst surface dive. This action is also known as suck, tuck, and duck. If you don't pull the victim under enough for him or her to let go, grasp the person's upper arms near the elbows and shove upward and away while twisting your head and shoulders. Swim clear of the person before surfacing. Do not struggle with him or her or try to place the person in a hold. Back off and wait while you review your options and the person's condition.





Front head-hold escapes

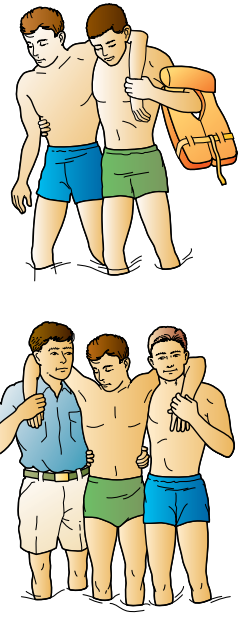
Be aware that active victims may try to stay afloat by grasping would-be rescuers.

Front Head-hold Escapes. Use the same technique if the victim grabs you from the front. Take a quick breath (suck), pull your chin down so it doesn't hang on the person's arm (tuck), turn your head to either side, raise your shoulders, and submerge (duck). If the person doesn't let go, push upward and away with your hands beneath his or her arms. You also may push a small victim up with your arms against his or her hips while you lean forward.

Landing a Conscious Victim

Conscious victims probably can remove themselves from the water once they have sure footing on the bottom or a firm hold on a ladder. Choose a safe landing site before entering the water. In exceptional cases, such as in a steep-sided quarry, you may both need help from others onshore. Ideally, arrange such aid before the rescue. When landing a conscious victim, lower your legs to check the water depth if you can do so without causing the victim to lose support. Natural bodies of water can be shallow for long distances from shore. It may be easier to walk through shallow water than it is to swim.

Shallow-water Assist. If the victim is exhausted, cold, or has trouble with footing, help him or her ashore using a shallow-water assist. While standing at the person's side, help him or her to stand and to place one arm around your neck and across your shoulder. Grasp the wrist of that arm with your outside hand, and wrap your free arm around the person's back. Then walk slowly together to shore. If he or she is much larger than you are, you may need to ask others for aid. A second person can help from the other side.



Shallow-water assist

Aftercare for a Conscious Victim

Once you reach safety, make sure the victim gets appropriate first aid. Call 911 as soon as you suspect advanced care may be needed. You may need to offer advice to friends and family members waiting onshore. Even if victims have remained conscious, they may need treatment for shock.

If a medical condition led to the incident, strongly suggest that the victim get medical attention as soon as practical. If the victim shows signs of hypothermia, suggest that he or she be moved quickly to a warm place. Small children may be scared and will need reassurance, not scolding. A child's parents might be upset because of their own fright or panic. Try tactfully to be a calming influence on all those around.

If the victim was alone or is unknown to you, look for an adult in a position of authority—a park employee or your parent, for example. Ask that person to see that the victim has access to care, can notify others, and has adequate transportation home.

Don't forget yourself. Wait for your own adrenaline rush to subside before going off on your own or doing anything that requires concentration, even crossing a busy street on foot. If you are cold, take the time to get dry and warm.

Additional details on first aid and CPR will be covered after rescue procedures for passive victims.

Line Tender Rescue

As a reminder, this section is still discussing the Go portion of Reach–Throw–Row–Go. The options for active victims have been covered above. Before covering rescue procedures for passive victims, now is a good time to review the First Class line tender rescue that is a prerequisite for the Lifesaving merit badge. The rescue is appropriate for both active and passive victims. If you view the Scouting America Safe Swim Defense training material for requirement 2, you will see a video presentation of the technique.

Two people are required for this rescue. One feeds a line from shore; the other swims the line past and into the grasp of an active victim or clasps a passive victim to hold his or her face above the water. The line tender then pulls in both the victim and the swimmer. The swimmer may carry a flotation aid if available.

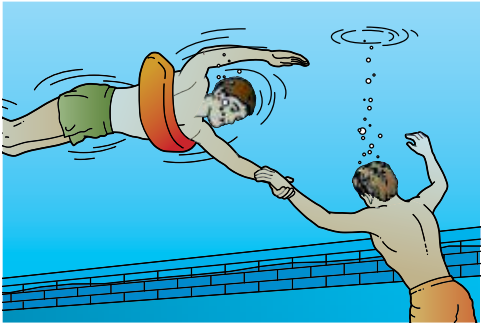
Swimmer safely enters water and swims line past and then to active victim.

The line tender rescue is similar to the line and reel used for decades to save thousands on the beaches of Australia and New Zealand. When first deployed, the swimmer swam the line using a harness. Flotation devices were added later. Although motorized inflatable boats have replaced lines as the primary surf rescue device in those locations, the technique remains valid. Because it is easy to teach to good swimmers, and the risk to the swimmer is reduced by being connected to shore, this procedure is a recommended option for response personnel in Scouting America Safe Swim Defense. However, it is most appropriate for safe swimming areas. *Do not use this procedure for whitewater rescues.*

Line tender pulls both victim and swimmer to safety.

For passive victims, the swimmer turns the victim faceup and holds on while the line tender pulls in the rope hand-over-hand. For submerged victims, the swimmer does a surface dive to reach and grasp the victim.

Providing Support for Passive Victims



Preparation. Rescue options for unconscious victims are more limited than for active victims; throwing rescues and noncontact tows won't work. Speed is critical, but don't forget the basics. Assume that anyone floating facedown will need emergency medical services.

- Call out for or get someone to call 911 immediately. Don't wait until you check for breathing after the rescue.
- Consider the possibility of a wading assist. See if appropriate equipment is at hand.
- Check the water for hazards and decide how and where to enter and exit the water.
- Look for signs of injury.
- Attempt a rescue only if it is safe to do so and if you are the most qualified person.

Call 911 immediately if a victim in the water appears to be unconscious.

The rescue of an unconscious victim will always require contact. If the victim is at the water's edge, a reaching assist may be possible. For victims away from the edge, a contact tow will be necessary. Although passive victims are unlikely to grasp a rescuer, you should always look for an appropriate flotation device to carry with you.

Some aids will be more suitable than others. It will be easier to support the victim with a rescue tube or something similar, such as a noodle, than with a ring buoy or ice chest. Unless the victim is submerged in deep water, you should probably put on a life jacket before entering the water rather than carrying it with you.

Entry and Approach. The same entries and approaches are used for a passive victim as for an active victim. Always keep the victim in sight; unconscious victims often submerge. If the victim is still at the surface when you get near, call out and splash water on the person to confirm he or she is unresponsive.

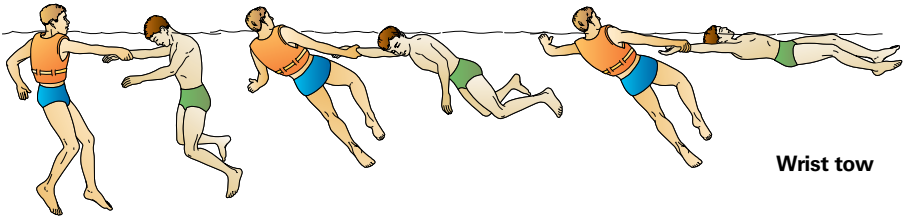
Rescues for a passive victim may be done from either the front or the rear. Choose whichever is easier, quicker, and better suited to a particular aid.

Wrist Tow: Front Approach

Use the wrist tow when approaching a facedown victim from the front. It will work whether the victim is at the surface, floating below the surface, or resting facedown on the bottom.

After confirming that the victim is unconscious, reach across to the victim's opposite wrist as if you were shaking hands, and take hold under the wrist with your palm up. Hold the victim's wrist firmly and begin your tow. Roll your wrist by turning your thumb up and over. This will turn the victim onto his or her back.

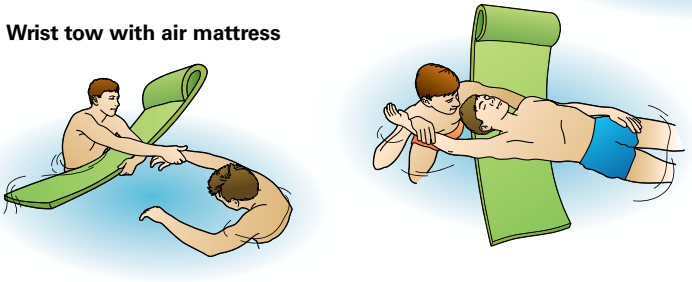
Maintain this grip as you tow the victim to safety with a sidestroke. Both your towing arm and the victim's arm should remain straight; some tension is needed to keep the victim faceup.



Wrist tow

It also is possible to use the wrist tow to place a flotation aid under the victim's shoulders. Hold the aid with one hand and reach across it with the other to grasp the person's wrist. Lift up slightly, twist him or her onto the back, and shove the float underneath as he or she turns. You will then need to change your grip to keep the person on the float. You may be able to place one arm over his or her shoulder and reach across the chest to grasp the aid with your hand. That should steady the person on the float and leave your other arm free for swimming.

Wrist tow with air mattress

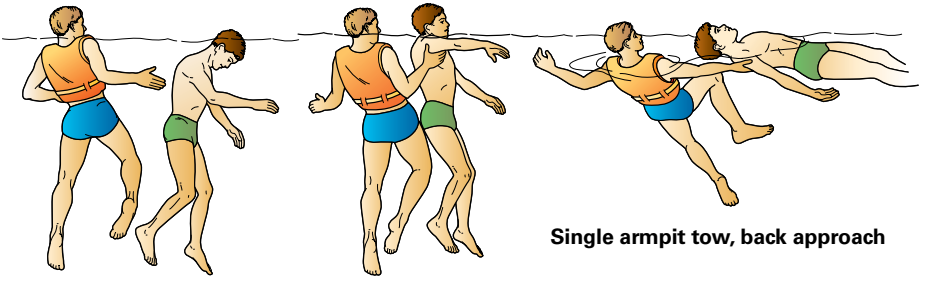


The wrist tow is used only for passive victims.

Armpit Tow: Back Approach

The armpit tow may be used for active, semiconscious, and passive victims at or near the surface if you approach the victim from the back. There are both single and double versions, which may be used with or without a flotation aid.

Use of a single armpit tow for a tired swimmer floating on the back has already been covered. When the victim is unconscious, he or she may be floating facedown or almost vertically. Getting the victim into a faceup towing position is the first challenge.

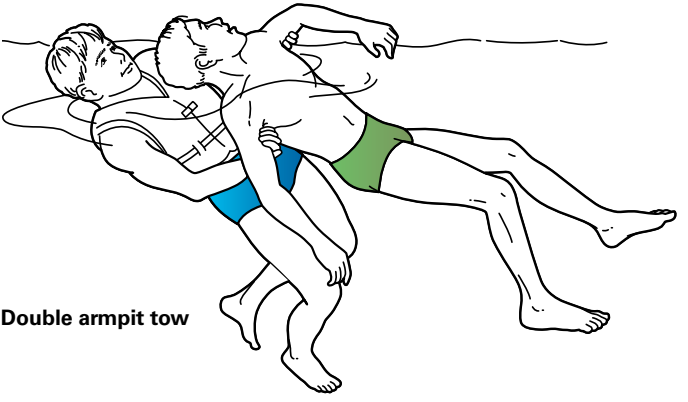


Single armpit tow, back approach

For the single armpit tow, use one hand to grasp the victim under the armpit, keeping your thumb up and on the outside. (Your right hand goes to the right armpit or your left hand to the left armpit.) Pull back with your arm and immediately begin swimming to shift the victim from facedown to faceup. It may take several strong strokes using both your legs and free arm to pull the victim onto the back. Once the victim is fairly level, continue to shore with your towing arm extended. Be sure to keep the victim's face out of the water.

If the victim is large, you may find it easier to pull him or her onto the back if you grasp both armpits and lean backward while using a whip kick. If safety is only a short distance away, continue with the double armpit tow. However, such a tow requires a strong, well-developed kick. Once the victim is level using both arms, it may be quicker and less tiring to shift to the single armpit tow.

The armpit tow may be used for both passive and active victims.



Double armpit tow

The double armpit tow can also be used with some buoyant aids, particularly if they are soft and relatively long and narrow, such as a rescue tube or noodle.

Double armpit tow with flotation aid

Approach from the rear

For either a conscious or unconscious victim, approach from the rear with the float across your chest and under your arms. Use both your hands to scoop under the victim's armpits, lean back, and pull him or her against the float as you kick backward. Keep your head to one side to avoid being hit by the victim's head as it moves back.

Using a buoy in the rescue of an unconscious victim

Using the double armpit tow

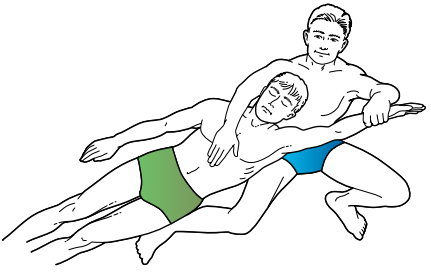
For unconscious victims, it may be easier to continue forward and roll the victim faceup rather than pulling back from the rear. Reach under the victim's armpits to grasp the shoulders and pull him or her firmly against the float. Then dip one of your shoulders and roll onto your back to turn the victim faceup.

Whether you should pull back or roll to place a passive victim faceup depends on the victim's size, the type of flotation aid, how confident you are with either, and also on the direction to safety. If you pull back, you are headed back along your approach line. If you roll, you continue in the same direction.

Transitions to Cross-Chest Carry

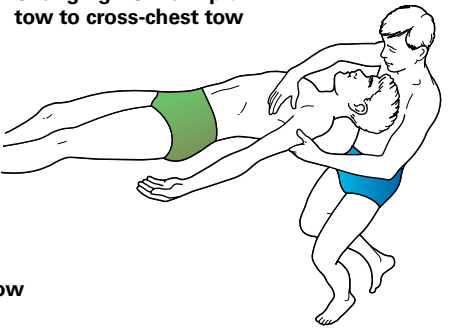
Whenever possible, use a flotation aid to help support both you and a passive victim. If a suitable aid is not available, try either the wrist tow or the armpit tows. However, both of those may be ineffective in some cases. Since a victim recovered from the bottom is no longer floating, you will need to provide additional support while swimming. The relaxed neck muscles of an unconscious victim may make it difficult to keep his or her face out of the water, particularly in rough water.

The cross-chest carry, or tow, gives a victim additional support and can be used if other techniques prove difficult.



Changing from wrist tow to cross-chest tow

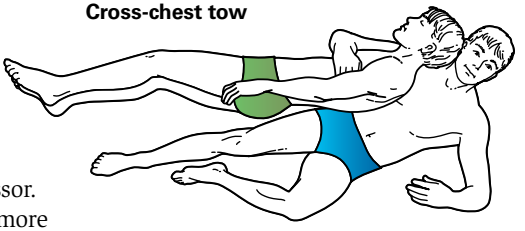
Changing from armpit tow to cross-chest tow



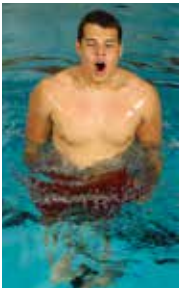
You can change to a cross-chest tow from either the armpit tow or the wrist tow. To do so, change towing arms as you switch briefly from a sidestroke to a backstroke and move behind the victim. Pull the victim close with your towing arm and reach over the victim's shoulder and across the chest with your other arm. Rest your hand just below the person's armpit. Hold him or her firmly against the side of your chest with your hip in the middle of the back. The elbow of your towing arm should be against his or her chest. Support the head against your shoulder or neck. If the victim starts to sink during the change, use your hip to push him or her back to a level towing position.

Use a sidestroke to tow the victim to safety. If you are swimming slightly facedown to support the victim on your hip, use a regular scissor kick. If you are swimming slightly on your back, use a reverse scissor.

Cross-chest tow



The cross-chest tow offers more support for the victim and is better suited to rough water than other tows when you don't have a flotation aid. However, it takes a lot of energy and is therefore not well suited for most rescuers over long distances. Try either the armpit tow or the wrist tow first. You may also shout to someone on shore for help, such as bringing out a flotation aid.



Submerged Victims

An unconscious victim can come to rest anywhere between the surface and the bottom. If the victim is just below the surface, reach down and use the wrist tow to bring him or her up and forward. If the person is deeper, you will need to use a feetfirst or headfirst surface dive. See the *Swimming* merit badge pamphlet if you need to review those skills.

Grasp the submerged victim in any logical manner, either by the wrist, under one arm, or under both arms. If the bottom is hard and clear, you can shove against it with your legs to help you up. If the bottom is muddy or covered with weeds, grasp the victim from above with one hand and use the other hand and a strong kick to pull him or her up. If you have a flotation aid, leave it at the surface and grasp it again after you surface. You can use the strap on a rescue tube to help pull you up by pulling the tube down.

Rescue of a submerged victim is easiest if the water is relatively shallow and you can see the bottom. Recovery is more difficult, and in some cases impractical and dangerous, if the water is deep and murky.

Take only one or two deep breaths before diving to avoid hyperventilating. Do not attempt to dive deeper if the pressure on your ears becomes painful.

If you saw the victim go under as you approached but can't see him or her from the surface, carefully do a feetfirst surface dive in the hope of making contact. If you do not find the victim, abandon the rescue attempt after you have made a reasonable search of the immediate area and before you become exhausted. Leave yourself plenty of energy to make it back to shore.

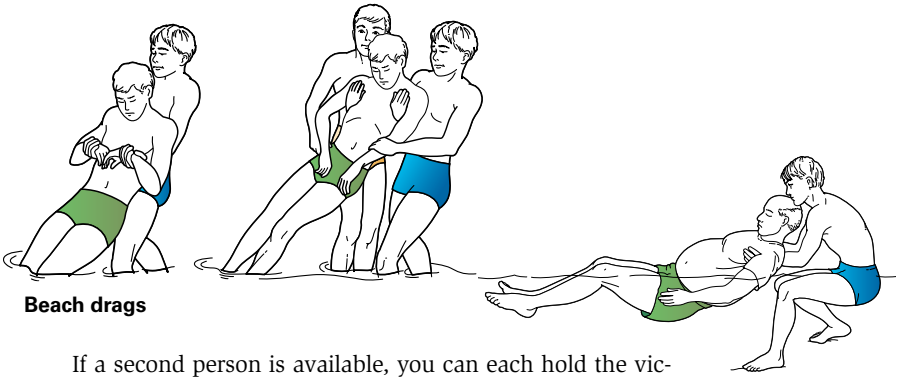
If you encounter submerged trees, weeds, or other obstacles while attempting to find a victim you saw submerge in murky water, postpone the search to get trained help. Take bearings in the water before you leave so you can find the spot again. Realistically, it may already be too late to help the victim, but leave that decision to others. It is possible to survive long submersion unharmed, particularly in cold water.

Also seek trained help if you arrive at a scene where a person is presumably on the bottom in murky water but no one can pinpoint the location.

Landing an Unconscious Victim

An unconscious victim needs to be moved as quickly as possible to where breathing and pulse can be monitored and CPR done if necessary. It is sometimes possible to start rescue breathing in shallow water or at the side of a boat, but an unconscious victim should normally be removed from the water and placed on a rigid surface. Removing an unconscious victim from the water often takes more than one rescuer.

Beach Drag. A drag is a relatively easy and safe way for one or more rescuers to move an unconscious victim when there is a sloping bottom. During the tow, the victim will be on his or her back. Once your feet touch bottom, grasp the victim under the armpits and pull him or her onto the beach by slowly walking backward. Support the victim's head with your forearms or against your chest as much as possible. Keep your back straight as you bear the person's weight with your arms. Gently lower him or her to the ground once the person is clear of the water.



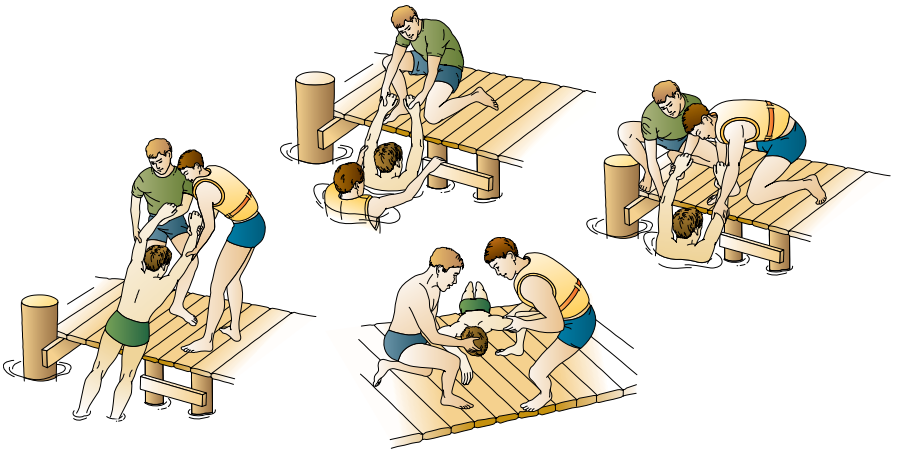
Beach drags

If a second person is available, you can each hold the victim under his or her arms on either side.

If you are alone and the victim is large, do not try to lift the person. Instead, squat down so that the water continues to provide support. Even if you only get the person's head past the water's edge, that should be enough to begin resuscitation if needed.

Bank Lift. Lakes and rivers may have irregular banks. Several people can improvise a lift, with some lifting from above and others pushing from below. Remember to consider the best spot to return to shore when you are planning your rescue. Time is critical so you need to factor in how long it will take to move farther to a better spot.

Bank lift



Vertical lift from a dock with two rescuers

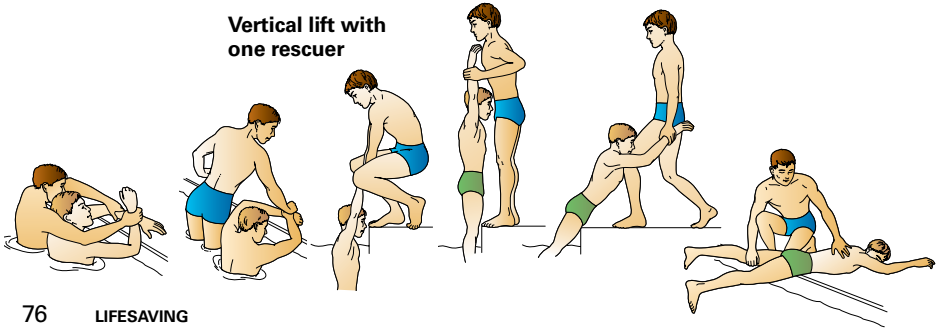
Vertical Lifts. The edges of pools and piers are often vertical. If the water is shallow and the victim small, one or more rescuers can lift a person cradled in their arms a short height to place him or her on the deck. Otherwise, a vertical lift can be used.

The victim is first positioned at the edge with his or her head clear of the water. A single rescuer can cross the victim's arms on a low deck and hold them in place while boosting himself or herself out of the water.

One or more rescuers on deck crouch and hold the victim's arms. Vertical lifting is done when the rescuers straighten their legs to stand up. Once the victim's hips are higher than the edge, the victim is slowly lowered to the deck on his or her stomach. The person's head should be cushioned when lowered. The victim's legs can then be pulled onto the deck. Do not try to roll the victim over until at least the hips and thighs are supported.

If the victim is too large to lift safely, call for additional help.

Vertical lift with one rescuer



Aftercare for a Passive Victim

As you bring an unconscious victim safely ashore, make sure that emergency medical aid is on the way. Ideally, a call to 911 should have already been made as you started the rescue. If emergency medical help has arrived or someone onshore has advanced first-aid training, turn care of the victim over to them.

If you still appear to be the most qualified person, check the victim's vital signs as soon as you get him or her out of the water. An unconscious victim will probably need rescue breathing and may need complete CPR. Resuscitation is covered in the next section.

If the victim is breathing but is still unconscious, place him or her in a faceup position, maintain an open airway, monitor vital signs, and keep the person warm until help arrives. Ask the victim's friends if they know of any medical condition that could have led to difficulty in the water. Also check to see if the victim wears a medical alert tag or bracelet.

If the victim regains consciousness, either on his or her own or because of your efforts at CPR, keep the person inactive until emergency help arrives. The person may feel OK and rebuff further attention, but real danger may still exist. Submerged victims who have aspirated, or inhaled, water may collapse hours after the rescue. Inhaled water can irritate the lungs and cause them to fill with fluid from within the body. Foreign matter in the lungs also can lead to pneumonia. **Any victim who lost consciousness, stopped breathing, or choked on water should undergo prompt medical evaluation.**

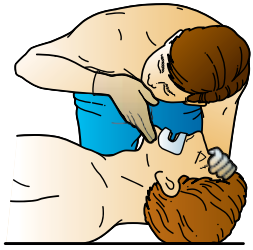
Resuscitation and First Aid for Water Rescue

Having basic knowledge of resuscitation and first aid as it relates to water rescue will help you respond safely and effectively to water emergencies.

Resuscitation

Drowning results when a person cannot breathe due to submersion in water. If a person cannot get the airway clear of the water often enough to keep adequate oxygen in the blood, he or she will stop breathing. That is respiratory arrest. If breathing is not restored, the heart will shortly stop beating. That is cardiac arrest. If a healthy heart rhythm is not restored, death follows quickly. Note the "ifs." Drowning need not be fatal if breathing and heart functions are restarted. Cardiopulmonary resuscitation, or CPR, fills the gap. Ventilations keep oxygen in the blood and compressions keep the blood moving until advanced medical care becomes available.

It is important to note that a person having a heart attack in the water also needs rescue and resuscitation. Because heart disease is the leading cause of death in the United States, that is a very possible situation. When a person has a heart attack, the heart rhythm can be disrupted. That is, the heart quivers rather than pumps. The only way to restore a normal rhythm is with an automated external defibrillator, or AED. Because an AED will not restart a heart with no motion at all, compressions may still be needed.



Look, listen, and feel for breathing.

The requirements for the Lifesaving merit badge state that you demonstrate current knowledge and skills for CPR, including rescue breathing. This pamphlet is not intended to serve as a textbook for CPR instruction. A few of the basics are reviewed here, but important details are not provided. Work with your merit badge counselor to review current training guidelines. CPR techniques are subject to updates every five years and different agencies offer courses that cover different amounts of detail. To maintain your skills, you should take a refresher course every one to two years.

Many public places such as local recreation center pools have now installed AEDs in clearly marked, designated areas much the same way that fire extinguishers are made readily available for access in an emergency.

For more detailed information about CPR, see the *First Aid* merit badge pamphlet.

If you suspect a person is not breathing, check for responsiveness. A person who can speak or cry is breathing and has a pulse. If the person is not responsive, look to see if the chest rises and falls and try to feel air against your cheek. If the person is not obviously breathing, give ventilations. If provided quickly enough, ventilations may be enough to restore breathing to a drowning victim. Compressions are needed only if the person is not breathing and does not have a pulse.

Check to see that the victim's chest rises when giving ventilations. If not, reposition the airway. Clearing airway obstructions is covered in CPR training.

Drowning victims may vomit during ventilations. If so, quickly turn the victim on his or her side and clear the airway. Then continue ventilations as needed.

Continue to provide ventilations, and compressions if indicated, until the person begins to breathe on his or her own, an AED becomes available, another trained rescuer takes over, emergency medical services personnel arrive, you become too tired to continue, or the location becomes unsafe.

It is important to provide ventilations as soon as possible to a person who is not breathing. Because compressions may also be needed, and those can only be provided on a firm surface, you should typically remove a person from the water before providing care. However, if you cannot remove the person quickly, it is sometimes effective to provide in-water ventilations.

First Aid for Water Rescue

There are additional first-aid concerns with water rescue other than spinal injuries and respiratory and cardiac arrest from drowning.

Recall that some victims who need rescue may be injured. If you notice the victim is bleeding, apply direct pressure to the wounds as soon as possible after you provide support and check that the person is breathing. Promptly summon emergency services.

Various preexisting medical conditions may lead to distress in the water. The first priority is to support the victim to prevent respiratory arrest from drowning. If breathing stops, begin resuscitation and summon emergency services.

A **heart attack** occurs when blood flow to heart tissue is blocked. Symptoms may include chest pain, difficulty breathing, dizziness, and nausea. A **stroke** happens when blood flow to the brain is blocked. Symptoms may include weakness or numbness, usually in the face or arms and often on one side of the body. The victim may be dizzy, confused, and unable to speak clearly. Both heart attacks and strokes may impair a swimmer.

Seizure disorders include **epilepsy.** Abnormal electrical signals in the brain trigger seizures ranging from short lapses in attention to severe convulsions. About 1 in every 100 children has a seizure disorder. Although medication can control seizures well, people prone to seizures should swim only under close supervision and with a physician's approval. A person having a seizure in the water could submerge without warning.

If you observe someone having convulsions in the water, first see if a companion or lifeguard comes to the person's aid. If not, approach from the rear and hold the victim's face clear of the water by lifting under the arms. A double armpit tow with or without a flotation aid can be used to move the person to water depths where you can stand. Don't try to stop the movement. Do only what is necessary to keep the victim's head clear of the water until the seizure ends. See that the person gets prompt medical evaluation.

During an **asthma** attack, the sufferer has trouble breathing and may make wheezing sounds. Such attacks are relatively rare while swimming but are not uncommon during vigorous exercise in hot, humid weather. If a victim is in the water, he or she may be able to help you with the assist. Once on shore, have the person rest in a comfortable position and try to find his or her medication. If the attack continues, seek medical aid.

Several million Americans have **diabetes.** Diabetic emergencies may happen when the body's sugar level is either too high or too low. Symptoms include rapid breathing and pulse, feeling and looking ill, and changes in the level of consciousness. A sufferer in the water may ask for help and aid in the assist. Use any standard technique to move the victim to shore. Give a conscious person candy, a non-diet soft drink, or table sugar dissolved in water. Call for emergency medical aid if the person is unconscious.

Other First-Aid Concerns

Hypothermia. Exposure to cold water can lower your core temperature dangerously, a condition called hypothermia. You should avoid entering very cold water to perform a rescue. Check all water rescue victims for signs of heat loss. Early signs include bluish lips, shivering, numbness, or a glassy stare.

Advanced signals include decreased coordination, grogginess, and inability to think clearly. Further chilling will lead to unconsciousness and eventually death, which can occur even before a victim's body temperature drops fatally low. The first step is to prevent further heat loss. Remove the victim from the water and dry him or her off, preferably indoors. In mild cases, wrap the person in dry towels or anything handy. If the condition is severe, call for medical aid. Actively (but not too quickly) warm the victim, and minimize movement. If the victim is unconscious, open the airway and check for breathing and a pulse.

Sunburn. This familiar condition is common during swimming activities. To prevent sunburn, cover up, use a waterproof sunscreen with an SPF rating of 15 or higher, and limit your time in the sun. If your skin begins to redden or feel painful to the touch, get out of the sun. To treat sunburn, apply clean cloths, towels, or gauze pads dipped in cool water. Protect the burned area from further sun exposure. For severe cases, consult a physician.

Overexposure to the sun is not only painful but also increases the risk of skin cancer.

Heat Exhaustion. Symptoms of heat exhaustion may include dizziness, faintness, nausea, and a severe lack of energy. A person with heat exhaustion also may develop a headache, experience muscle cramps, have a rapid pulse, look pale, and be sweating heavily. To treat heat exhaustion, have the victim lie down in a cool, shady spot. Cool the person with a damp cloth or a fan. Have the victim sip water. Recovery should be rapid. If the condition worsens, get medical help.

Heatstroke. This extreme, life-threatening heat reaction occurs when dehydration (water loss) has caused a very high body temperature. The victim's cooling system has started to fail, and the person's core temperature is at a dangerously high level. In addition to any symptoms of heat exhaustion, heatstroke symptoms can include hot, dry, red skin, confusion, and disorientation; the victim may be unconscious. Cool the victim immediately by fanning and applying wet towels. If you have ice packs, wrap them in a thin barrier such as a T-shirt and place them under the armpits and against the neck and groin area. If the person is able to drink, give small amounts of cool water. Treat for shock and seek emergency medical help.

Dehydration

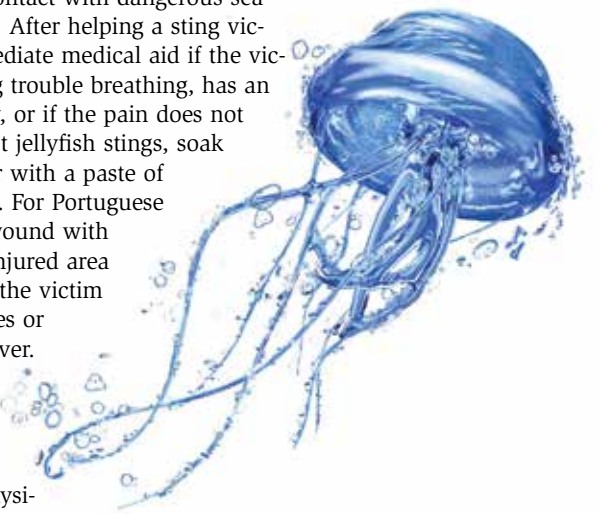
Dehydration can play a significant role in heat exhaustion, heatstroke, hypothermia, frostbite, and a host of other maladies. An early sign of dehydration can be dark urine. Other symptoms include weariness, headache and body aches, dizziness, and confusion. If you suffer any indications of dehydration, get out of the water, rest in a shady, cool place, and sip water.

To prevent dehydration, drink before—and whenever—you feel thirsty. Thirst is an indication that you are already becoming a bit dehydrated. Replenish your water supplies at every opportunity, and drink often in warm weather and cold weather alike.

Even when you are swimming, it's important to stay hydrated and drink plenty of water.

Muscle Cramps. These painful muscle spasms or contractions generally affect the calf, foot, or thigh. A cramp can impair swimming ability and may endanger a poor swimmer. Causes include overexertion and dehydration. If a swimmer gets a cramp, give him or her a flotation aid. If one is not handy, have the person float on the back or survival float. If possible, have the person massage and stretch the affected muscle to improve circulation. Cramps are not serious unless the victim panics.

Stings and Bites. These are not common when swimming in pools or lakes, but swimmers in saltwater may suffer severe stings from certain types of jellyfish, urchins, the Portuguese man-of-war, or other sea creatures. Knowing the body of water in which you are swimming, obeying warning signs at beaches (such as instructions to shuffle your feet to avoid rays), and avoiding possible contact with dangerous sea animals are the best strategies. After helping a sting victim from the water, seek immediate medical aid if the victim is in severe pain, is having trouble breathing, has an allergic reaction, or feels dizzy, or if the pain does not let up in a short time. For most jellyfish stings, soak the area with vinegar, or cover with a paste of baking soda mixed with water. For Portuguese man-of-war stings, flush the wound with ocean water. Immobilize the injured area and soak it in water as hot as the victim can stand, for about 30 minutes or until medical personnel take over. Packing the area in hot sand may have a similar effect if the sand is hot enough. Next, carefully clean the wound and apply a bandage. Consult a physician for puncture wounds.



Hyperventilation. This condition is the result of over breathing, either deliberately or as a result of panic. Hyperventilating, that is, taking a series of deep rapid breaths decreases the level of carbon dioxide in the blood and suppresses the breathing reflex, but it does not increase oxygen intake. The likely result is dizziness and fainting. If a swimmer becomes panicky, he or she should be removed from the water and calmed. A foolish swimmer may deliberately try to hyperventilate to prolong time underwater; that is dangerous and should never be attempted.

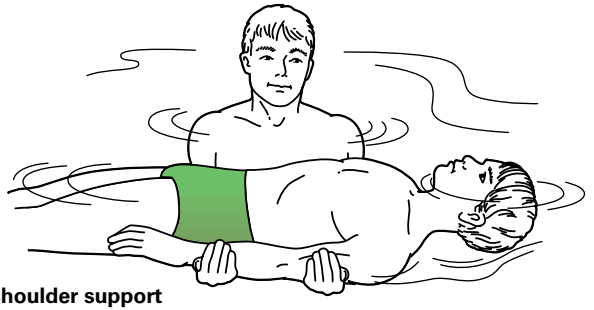

DANGER
NO DIVING

Spinal Injury Management

Diving into shallow or unclear water is unsafe and foolish. The diver risks spinal injury, permanent paralysis, or death. In pools, most diving injuries happen in shallow water but also can occur if the diver hits another swimmer or a diving board. In lakes and rivers, diving injuries are caused by misjudging the depth of the water or hitting rocks or trees unseen from the surface. At beaches, lunging into waves or falling off a board can cause spinal injury when a wave slams the victim into the bottom.

If you notice anyone dive into the water and float immobile to the surface, call for help immediately. Head, neck, and spinal injuries are extremely serious and are best handled by trained personnel with special equipment. If trained and equipped personnel are not immediately available, your job is to maintain the person in a faceup stable position until help arrives.

Also check for breathing. If the person needs CPR, time is critical. Breathing and circulation take precedence over a spinal injury. The injury may be stable or the damage already done, but death is sure to follow respiratory arrest if breathing is not restored. Do not wait. Provide care to the best of your ability, using others at hand to help.



Hip and shoulder support

Hip and Shoulder Support

For a victim found floating faceup, move to the person's side and lower yourself to chest depth. If the victim is conscious, tell him or her not to move. Next, slide one arm under the shoulders and your other arm under the hips. Support the victim with his or her face clear of the water, but do not lift the person further. Additional rescuers can provide similar support from the other side and stand near the head to protect the person from contact with other swimmers.

Ask the victim what happened and tell him or her to answer verbally, not by shaking the head. Reassure the person that help is on the way and that you will hold him or her steady until then. If the victim is unconscious, look for signs that he or she is breathing.

Head Splint

Hip and shoulder support doesn't keep the victim's head from moving in waves and works only if he or she is faceup. Another technique is to use the person's arms to brace the head.

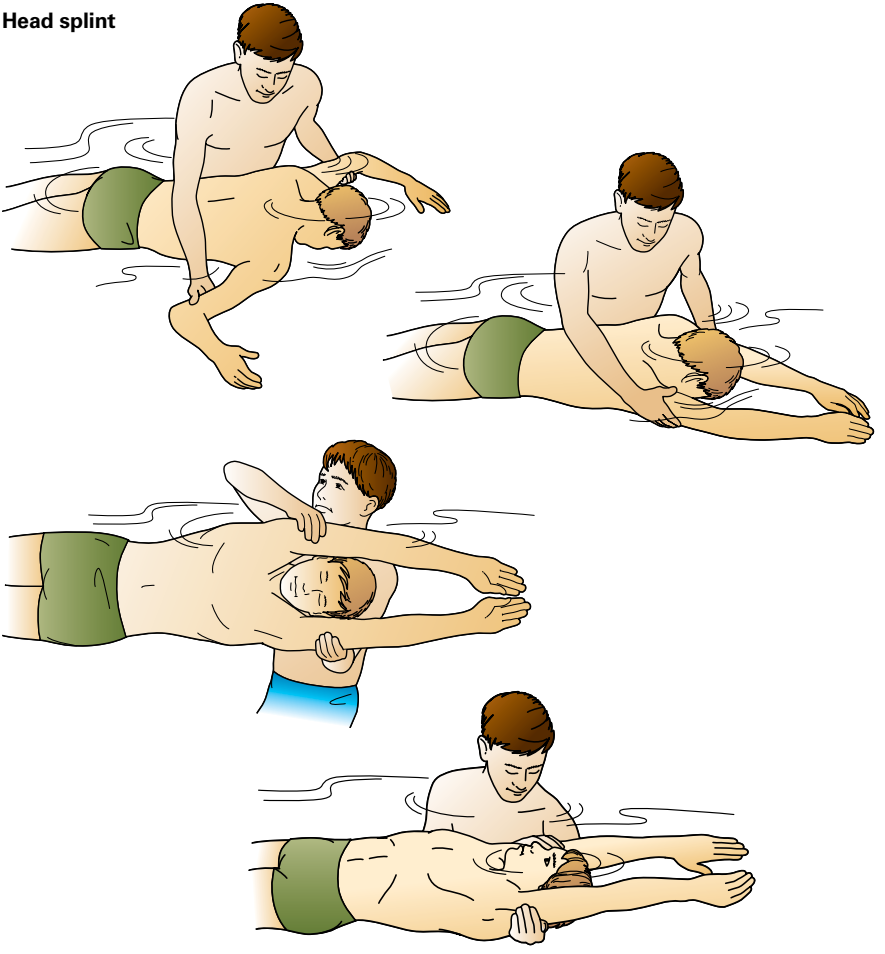
If the victim is facedown, approach carefully from the side and stand near the head. If the person's arms are dangling at the sides, move them forward alongside the head. Reach across and grasp the outside arm (your right to his or her right, or left-to-left) between the elbow and the shoulder with your thumb toward his or her hand. Grasp the person's other arm similarly with your free hand. Carefully swing the arms forward until they are near the ears, then squeeze them to trap the victim's head in place.

Next, glide the victim slowly forward while rolling him or her faceup. Turn the victim by pushing down on the near arm and pulling the far arm across. As you roll the victim, lower yourself in the water as needed to avoid lifting him or her. Your body turns to face the person's feet.

After rolling the victim faceup, continue to hold his or her head in place with pressure on the arms. Brace your near hand against your shoulder to make it easier. If the victim is not breathing, have a second rescuer start rescue breathing and check for a pulse.

For a victim found faceup, approach from behind the head and pull his or her arms into position as you face the person's feet. You can also approach from the side and reach one arm across his or her chest to squeeze the person's arms against the head. That approach lets you kneel in very shallow water.

Head splint



Additional Opportunities

Earning the Lifesaving merit badge should prepare you to assist as a lifesaver in most swimming-related emergencies, but you can always be even better prepared. Earning the First Aid, Canoeing, Rowing, and other boating merit badges will help you develop additional skills.

As you get older, you may consider career opportunities in which water rescue plays a part. Public pools, water parks, and beaches employ lifeguards. Fire departments and county sheriff departments often train their personnel in search and rescue, including swift-water rescue and scuba diving. Such organizations sometimes call on trained volunteers for help. Selected U.S. Coast Guard and Navy personnel receive intense water-rescue training, including the use of motorized craft and helicopters.

Earning the Lifesaving merit badge also should make you a better guardian for a young friend or sibling cooling off in a backyard pool or in a lake at a family picnic. There, your task is to prevent accidents as well as to stand by for possible emergencies. That is, you would serve as a lifeguard rather than a lifesaver. You can serve the same function at a troop swim.

Earning the Lifesaving merit badge does not cover all of the skills needed by a professional lifeguard. Unlike a troop swim using Safe Swim Defense, a lifeguard at a public pool is responsible for more people, of unknown numbers, of unknown swimming ability, of unknown physical condition, who may at times be rowdy or uncooperative. Lifeguard training emphasizes accident prevention, working as a team, and use of a limited range of special-purpose rescue devices.

Scouting America Lifeguard provides such training, as do courses offered by the American Red Cross and YMCA. Those courses are open to Venturing-age youth and provide excellent opportunities for you to qualify as a lifeguard at Scout camps or public pools. Other facilities, particularly those near ocean beaches, offer their own training programs.

Fulfilling the Lifesaving merit badge requirements teaches you how to react to an unexpected incident using materials at hand.

Lifesaving Resources

Scouting Literature

Aquatics Supervision; Scouts BSA handbooks; Deck of First Aid; Emergency First Aid pocket guide; *Fieldbook; Canoeing, Emergency Preparedness, First Aid, Kayaking, Motorboating, Rowing, Safety, Search and Rescue, Small-Boat Sailing, Swimming, Water Sports,* and *Whitewater* merit badge pamphlets

With your parent or guardian's permission, visit Scouting America's official retail site, **scoutshop.org**, for a complete list of merit badge pamphlets and other helpful Scouting materials and supplies.

Books

American Red Cross. *American Red Cross Lifeguarding Manual.* American Red Cross, 2024.

Graver, Dennis. *Aquatic Rescue and Safety: How to Recognize, Respond to, and Prevent Water-Related Injuries.* Human Kinetics, 2004.

Raatma, Lucia. *Water Safety.* The Child's World, 2004.

U.S. Lifesaving Association. *Open Water Lifesaving: The United States Lifesaving Association Manual,* 3rd ed. Pearson Learning Solutions, 2024.

YMCA of the USA. *On the Guard II: The YMCA Lifeguard Manual.* YMCA of the USA, 2016.

Organizations and Websites

American Canoe Association
americancanoe.org

American Red Cross
Toll-free telephone: 800-733-2767
redcross.org

American Whitewater
americanwhitewater.org

International Life Saving Federation
ilsf.org

Lifesaving Society of Canada
lifesaving.ca

National Safety Council
nsc.org

Royal Life Saving Society–Australia
royallifesaving.com.au

Royal Life Saving Society UK
rlss.org.uk

Safe Kids Worldwide
safekids.org

Surf Life Saving Australia
sls.com.au

Surf Life Saving New Zealand
surflifesaving.org.nz

U.S. Coast Guard
Boating Safety Division
uscgboating.org

U.S. Lifesaving Association
usla.org

YMCA of the USA
ymca.net

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Photo and Illustration Credits

David Bell—page 24 *(low-head dam)*

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John McDearmon—all instructional illustrations