

Basic Swimming Skills

From your work toward Second Class rank, you know that a rescuer often does not need to enter the water to save someone from drowning. Reaching or throwing rescue devices usually work, but sometimes a rescuer must swim a float to an active victim, or swim out and tow an unconscious person to safety. Such cases require strong swimming skills.

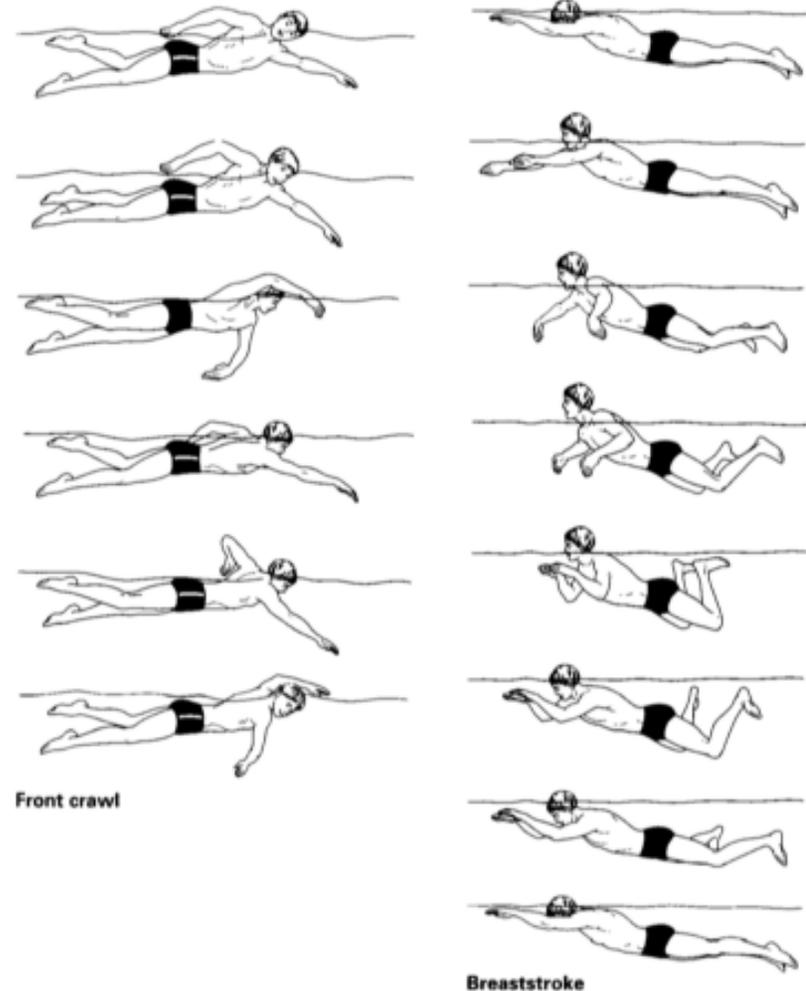
First Class rank requirements start you on your way to becoming a good swimmer, but you need additional skills to begin training for the Lifesaving merit badge. You need to master the front crawl, sidestroke, breaststroke, and elementary backstroke. These are introduced in your *Boy Scout Handbook* and reviewed here, but you will probably need formal instruction to master them. Do not assume that your Lifesaving merit badge counselor will teach you swimming and lifesaving at the same time. Your swimming skills need not be perfect, but you should know the basic strokes before you tackle lifesaving.

An excellent way to prepare for the Lifesaving merit badge is to first earn the Swimming merit badge. You also may take swimming courses from the Red Cross, YMCA, or your local parks department. If you are a member of a swim team, you can ask your coach for help with the noncompetitive strokes. You should contact a counselor for the Lifesaving badge only after you are confident that you can perform the prerequisite 400-yard swim with ease. If you can't quite make the distance, get someone to review your strokes with you. At this stage, stamina is probably not as critical as good form. That is, if you know how to do the strokes properly, the distance shouldn't be a problem.

Review the following stroke descriptions to refresh your memory. More detailed descriptions and illustrations are in your *Boy Scout Handbook* and the *Swimming* merit badge pamphlet. Note that lifesaving procedures will require you to modify the strokes to carry equipment, to avoid obstructions, to keep an eye on the victim, and, if needed, to tow the victim to safety. The front crawl and breaststroke are generally used as approach strokes and to push objects. The sidestroke and elementary backstroke are normally used to tow objects. You also will need to know the rotary kick for holding a vertical position and surface dives to recover submerged objects.

Front Crawl

The front crawl combines a relaxed flutter kick with a rotary arm motion and rhythmic breathing. It is the fastest stroke but can consume considerable energy. The stroke is most efficient if the head remains supported by the water. The head is turned to the side to inhale and rotated down to exhale. Power is improved if the lower arm is bent and swept across the chest rather than rotated in a vertical arc. The kick should generate enough power to push you through the water without using your arms. The feet should not slap the surface of the water.

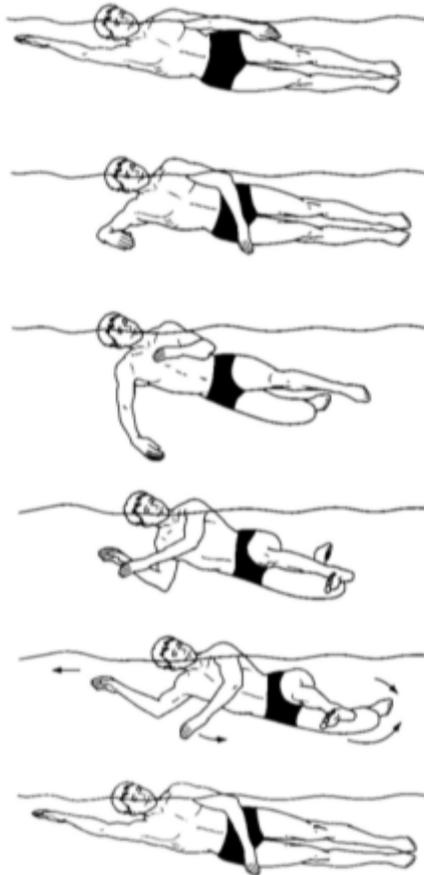


Breaststroke

Coordination is the key to the breaststroke. Your legs power you forward as your arms move to a glide position with your head down. Your arms power you while you take a breath and prepare the legs for the next whip kick. Done slowly with a glide, the breaststroke conserves energy and is appropriate for long distances.

Sidestroke

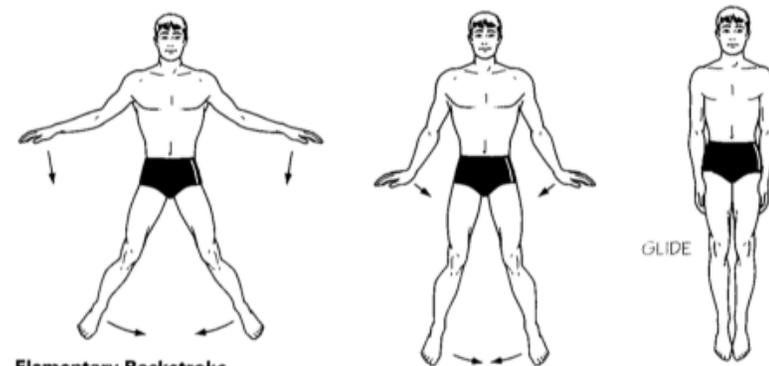
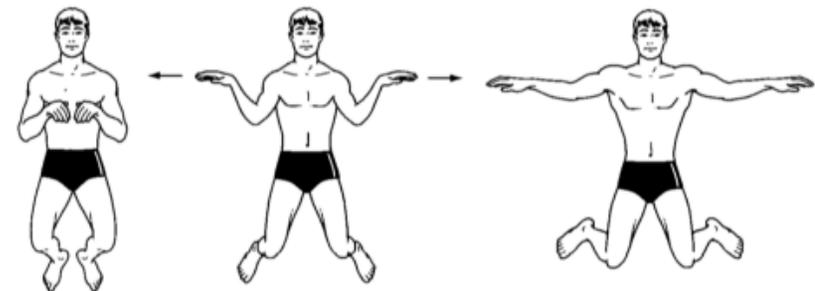
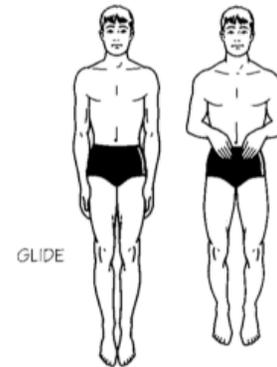
The sidestroke uses a scissors kick in which the heels are first tucked behind the body. The top leg is then extended forward and the bottom leg back. Power is generated when the legs are snapped back to a trailing position. The lower arm pulls water past the chest while the upper arm pushes from the chin toward the feet. The stroke uses a glide to conserve energy. Breathing is natural because the head remains out of the water. A good swimmer should be able to do the sidestroke on both sides.



Sidestroke

Elementary Backstroke

The backstroke begins with arms at your sides and legs together. Start the whip kick by slowly lowering the heels beneath the knees. Then rotate the ankles outward of the knees and return them to the start position in a rapid, continuous circular motion. The knees separate and follow the feet out do not lead out with the knees. The arms are brought slowly up along the chest and extended outward at shoulder level. They are used to push water toward the feet while the legs are making the circular "whipping" action. Raising the head and bending at the waist are common mistakes that distort the body position. The elementary backstroke is a restful stroke suitable for long distances. A long glide is an essential element of the stroke.



Elementary Backstroke

Stroke Use and Modification for Lifesaving

The crawl is used as an approach stroke to cover distance rapidly when the rescue aid can be trailed behind the swimmer—for example, when making a swimming rescue using a rescue tube. For lifesaving, the crawl is normally done with the head out of the water, and you should practice it that way. Although that takes more energy and makes the stroke more difficult, the rescuer needs to keep track of the victim's location and avoid obstacles or other swimmers. It is important that you as rescuer pace yourself to prevent exhaustion. If you must swim a long distance, you may choose to swim facedown and look up every few strokes.

The breaststroke also is used in lifesaving with the head out of the water. It is a more versatile approach stroke than the crawl. Rescue equipment may be trailed behind, tucked under the arms, or pushed forward with one or both hands. If wind and water are calm, the swimmer can push a float such as an inner tube or air mattress ahead of him, then use his arms for stroking while catching up. The rescuer also can propel a bodyboard, surfboard, or air mattress while lying on the device and using his arms in a breaststroke fashion.

The sidestroke is another option for an approach stroke used to take a rescue aid to a victim. The swimmer may tow the rescue aid with one hand, leaving the other free for stroking. The sidestroke is slightly more awkward than the breaststroke for seeing where you are going. (The backstroke is not normally used as an approach stroke because forward vision is difficult.)

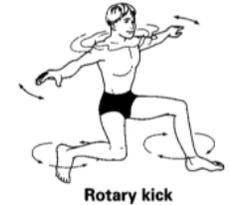
In waves, it may be easier to tow some aids rather than push them. You can use either a regular scissors kick or an inverted scissors kick, depending on your preference. In the inverted scissors kick, the top leg goes back rather than forward. Some swimmers will use the regular scissors on one side and the inverted scissors on the other.

After presenting the victim an aid, you'll choose a stroke for the return to safety. If you've used a buoyant aid, one option is to let the victim kick toward shore while you swim alongside. The sidestroke enables you to swim alongside the victim while keeping the person in full view. If the victim needs help, then both the sidestroke and the backstroke are useful for towing a conscious victim grasping a float. If the float is large enough that the victim and the rescuer can hold to opposite sides, then you can use the breaststroke to push the victim to shore.

If you've used a nonbuoyant aid or the victim is unconscious, you may do a tow using the sidestroke or the backstroke. Such situations will be discussed in more detail in later sections. For now, you will find it useful to practice the sidestroke with the lower hand held at the side and the backstroke using just the kick.

Rotary Kick

At times during training for lifesaving, you will need to stay in one position without a float and with your head up; that is, you'll need to tread water. You have probably already developed your own style of treading water, such as sculling with your hands and using a combination of kicks. Another option is to use the rotary, or egg-beater, kick.



The rotary kick is done from a sitting position with the knees apart. Rotate one leg and then the other in a circular pattern. The motion is similar to that of the whip kick used for the breaststroke and the backstroke. However, each leg moves separately in the rotary kick. Try it first supported by a float or sculling with your hands. As you get the feel of it, try it without using your arms. Kick only fast enough to keep your head above water.

Surface Dives

Some drowning victims must be recovered from below the surface of the water. Swimming downward for any distance is hard because your body is lighter than water and will float upward. If you try to swim straight down, you will waste energy and breath that are needed for victim recovery. Instead, practice the surface dives described in this section until you can easily reach bottom in 8 feet of water.

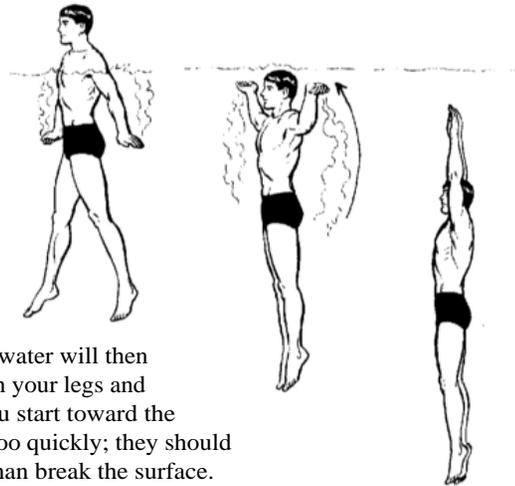
Take only one or two deep breaths before you dive. Breathing too deeply for too long can lead to *hyperventilation*. Your body uses the amount of carbon dioxide in your blood to trigger the desire to breathe. After hyperventilation, it is possible for you to run out of oxygen and black out underwater, before carbon dioxide levels rise enough to warn that you need more air.

You probably have noticed a slight pain in your ears when you swim near the bottom of a deep pool. The increased pressure of the water against your eardrums causes the discomfort. The feeling may have disappeared if you swallowed or wiggled your jaw. If air is free to travel from your lungs to your inner ear, then the pressure will be equal on both sides of your eardrum and you won't feel any difference. Some people equalize automatically; others, especially if suffering from a cold, cannot equalize at all.

If you are trying to recover a victim in deep water, you must return to the surface if the pain in your ears becomes intense, even if the person is in sight. If you ignore the pain, your eardrum might rupture. That could cause you to lose your sense of direction and possibly to black out. Then there would be two people to rescue instead of one.

Feetfirst Surface Dive

Use the feetfirst surface dive whenever you can't clearly see what is beneath you. At the surface, begin in a vertical position with your arms extended outward. Push down with your arms while using a scissors kick to push upward. Try to lift your body as far out of the water as possible. The weight of your body out of the water will then drive you downward. Straighten your legs and push up with your hands as you start toward the bottom. Do not lift your arms too quickly; they should push against the water rather than break the surface.



Headfirst Surface Dive

You can use the headfirst surface dive when the water is deep and clear. The dive is easier to do if you begin while moving forward with a breaststroke. As you finish an arm pull, your hands will be to the side and your legs straight back. Without stopping, scoop downward with your arms as you bend at the waist and lift your legs into the air. Then extend your arms in front of your head.

The object is to point your entire body toward the bottom with your legs above the surface. Again, the weight of your legs above the water drives you downward. The headfirst surface dive also is known as a "pike" if you keep your legs straight the entire time. It is a "tuck" if you bring your legs toward your body while you bend downward and then straighten them into the air. Keep your arms extended to protect your head as you dive.

