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Mask, Fins, and Snorkel Skills



152 Masks

154 Fins

156 Snorkels



Mask, Fins, and Snorkel Skills

Masks, fins, and snorkels are used for swimming enjoyment and underwater exploration. Lifeguards also use this equipment for pool maintenance and underwater search and recovery. Using fins can help a lifeguard keep a victim with a spinal cord injury afloat in deep water. Quick rescue of submerged victims may depend on ready accessibility and proficient use of masks, fins, and snorkels. They should be available to lifeguards at aquatic facilities and practice with them incorporated into all in-service training programs.

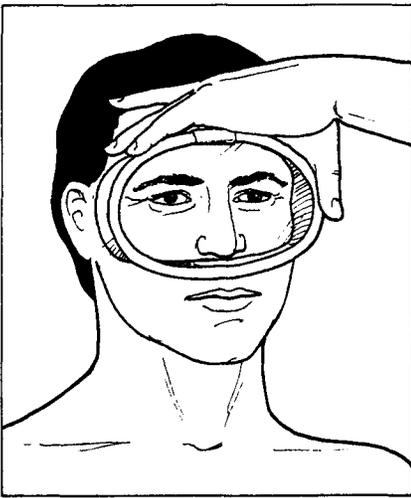


Figure 171
Test mask for fit

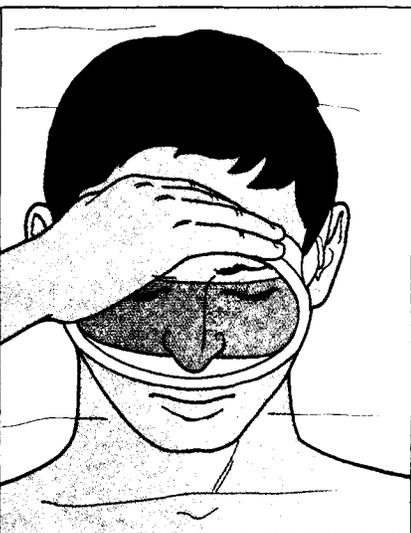


Figure 172
Press faceplate against forehead

Defogging the Faceplate

New masks require some preparation before use. It is necessary to clean the inside and outside of the faceplate with a mildly abrasive detergent (toothpaste is an excellent cleanser) to remove the thin, greasy film; otherwise, normal defogging methods will be ineffective.

To prevent condensation from forming on the inside of the faceplate, rub saliva or a commercially produced defogging solution on the inside of the glass; then rinse the mask with water.

Proper Mask Fitting

To determine if a mask fits properly, place the mask against your face without using the strap, making sure your hair is out of the way (**Fig. 171**). Inhale slightly through your nose. Forceful inhalation can disguise a poorly fitting mask. The mask should remain in place without being held as long as gentle suction is applied. Adjust the strap to hold it firmly in place. Do not overtighten the strap or the sealing edge of the mask will be flattened, causing it to leak. Next, put your face in the water with the mask strapped on. If it leaks, tighten the strap.

Clearing a Mask of Water

Even if your mask fits properly, small amounts of water may leak in while you are swimming underwater. Practice in clearing the mask in shallow water will increase your confidence in using the mask.

Fit the mask to your face as described above. Submerge in a sitting position and tilt or lift the top portion of the mask away from your forehead, allowing water to enter slowly. Place two or three fingers (or the palm of one hand) on the top of the faceplate and press in against your forehead (**Fig. 172**). At the same time, exhale through your nose and then tilt your head back slightly. This forces the water out at the lower edge of the mask (**Fig. 173**). Most masks can be cleared easily several times on one breath of air. Repeat as often as necessary until you are comfortable with this step. Continue practicing underwater in shallow water.

In deep water, the mask may be cleared while you are swimming in a horizontal position. Turn your head to either side, place two or three fingers or the palm of one hand on what was the side, but is now the top, of the mask. Press firmly, exhale through your nose, and water will be forced out through the lower side (Fig. 174).

If the mask has a purge valve, exhale through your nose, and the water will be forced out of the one-way valve (Fig. 175).

Relieving Ear and Mask Pressure

When a diver descends, the surrounding water causes an increase in pressure that, if not equalized, can cause discomfort, pain, and possible injury. It is important, therefore, to prevent injury by understanding and using proper equalization techniques.

Ear pressure may be relieved by a technique called the Valsalva maneuver—the attempted exhalation against closed nose and mouth. Place your thumbs along the bottom of the mask, press it against your nostrils, and attempt to exhale. If the mask is equipped with a molded nose, use it to pinch your nostrils while attempting to exhale. You may have to make repeated attempts before pressure in your ears is relieved. Some people can clear their ears by extending the jaw forward and swallowing. Do not attempt to go deeper until you are successful in clearing your ears.

The rule for equalizing pressure (clearing the ears) is to equalize early and often; if you cannot equalize the pressure, ascend immediately. Equalization begins on the surface. If equalization is difficult, it is better to return to the surface than attempt to force it. Forceful use of equalization techniques can cause injury. You should not attempt equalization if you have head, chest, or sinus congestion as the result of allergies or a cold.

Descending divers may experience discomfort around the face because of “mask squeeze.” The difference in pressure causes soft facial tissue to be squeezed into the mask space. To help relieve this pressure, exhale a small amount of air from your nose into the mask.

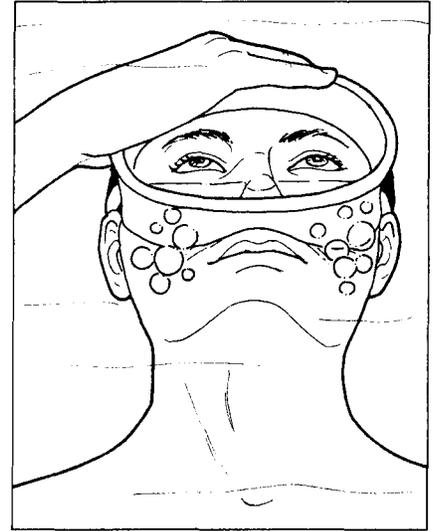


Figure 173
Force water out

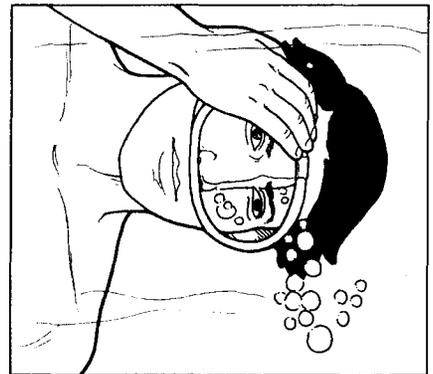


Figure 174
Clear mask—horizontal



Figure 175
Clear mask—purge valve

Mask, Fins, and Snorkel Skills

Putting on the Fins

Wet your fins and your feet or boots before putting the fins on, as this makes it easier to push the fins over your feet or boots. Push the fins on; do not pull. Pulling often causes fin straps to break or become out of adjustment. Once a fin is on, fit the strap over your heel.

While wearing fins, always walk sideways or backward to avoid tripping. Look behind you to keep from falling while walking backward on land. If possible, do not walk while wearing fins.

Kicking With Fins

The purpose of using fins is not speed but the ability to move steadily without overexertion. The most common kick with fins is the modified flutter kick (*Fig. 176*). You can use it when you are faceup, facedown, or on your side. The kicking action is deeper and slower and has a greater knee bend than the flutter kick. While swimming on the surface, be sure to keep the fins underwater to maximize propulsion. Since they make treading water easier, fins are very helpful in deep-water rescues.

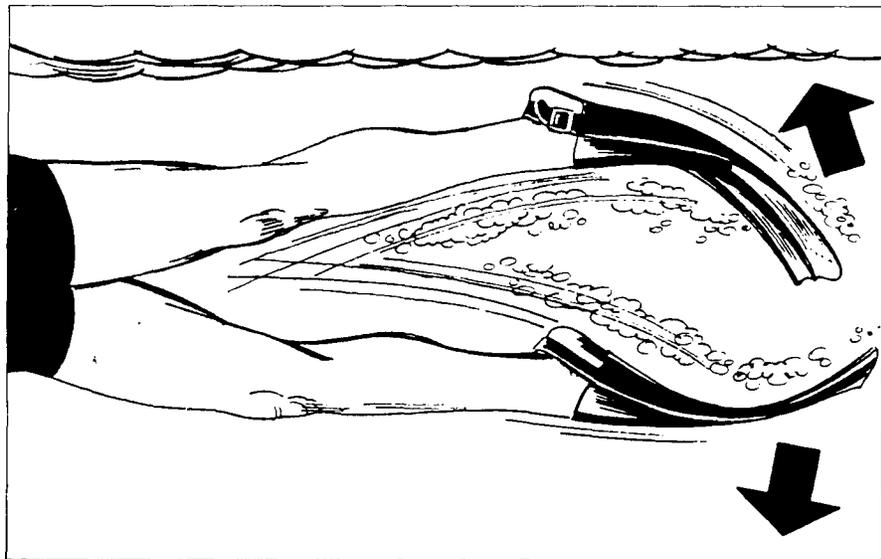


Figure 176
Fins—modified flutter kick

A dolphin kick (*Fig. 177*) can also be used for surface and underwater swimming. It is a motion performed with the entire body. Keep your legs and feet together. Bend your knees to bring the fins up and arch your back. Then straighten your legs and bend forward at the waist to bring your legs down. Bend your knees again to bring the fins up, straighten your body, and arch your back. This is a continuous, undulating motion.

The easiest way to swim underwater while wearing fins is to use your legs only. Your arms can be carried forward for protection when swimming in unclear water but are normally positioned at your side.

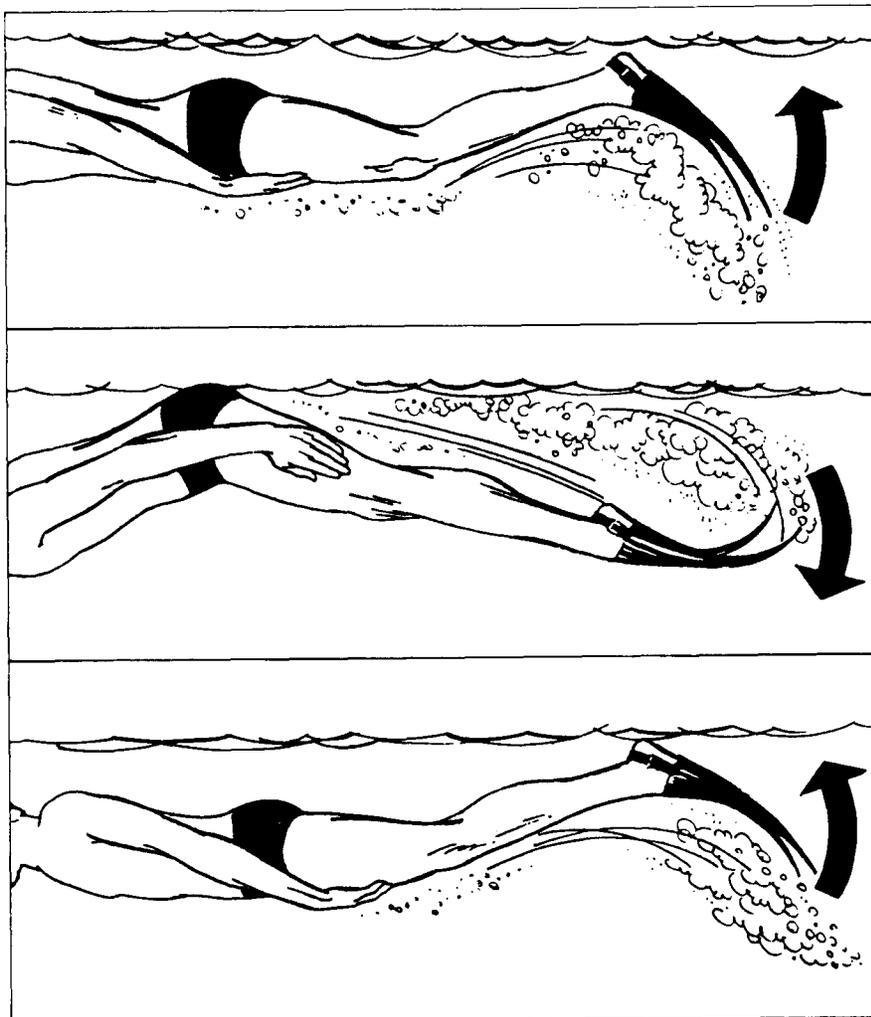


Figure 177
Fins—dolphin kick

Mask, Fins, and Snorkel Skills

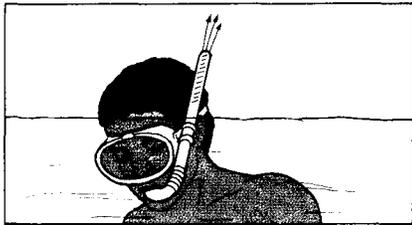


Figure 178
Clear snorkel by exhaling

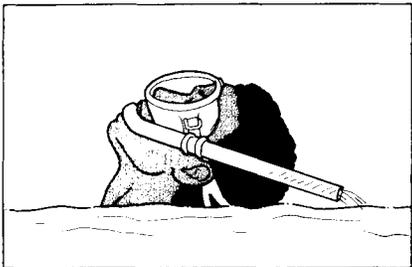


Figure 179
Clear snorkel by tilt method

Snorkels

Using the Snorkel

Attach the snorkel to the left side of your mask. Place the mask on your face and the snorkel in your mouth. The mouthpiece should fit between your teeth and lips. Adjust the position of the snorkel in the keeper and on the mask strap for a comfortable fit and to make sure the mouthpiece remains in your mouth when your mouth is opened widely. This minimizes tension on the mouth. The snorkel should rest by your ear when your face is in the water.

Seal the snorkel by holding your lips firmly around the barrel. Practice breathing with your face out of the water until you feel comfortable. Then, while standing in chest-deep water, put your face in the water and practice breathing. After becoming comfortable with this skill, practice breathing while swimming on the surface with your face in the water.

Swimming while breathing through a snorkel requires deeper breathing techniques because of carbon dioxide build-up in the body. Proper snorkel breathing techniques are important because of exertion and increased air requirements. Inhalations should be deep and relaxed, and exhalations should be shorter and stronger than normal to expel exhaled air completely before taking another breath. To prevent shallow-water blackout, snorkel divers must be discouraged from excessive hyperventilation (more than 3 breaths) before submerging. Diving in buddy pairs is always recommended. Only one snorkeler should dive at a time while the buddy remains on the surface and observes the dive.

Clearing the Snorkel

You need to know how to clear water out of the snorkel because it will fill up when you dive (and sometimes while you are swimming on the surface). Practice flooding and clearing the snorkel in shallow water. Take a breath and submerge deep enough to flood the snorkel. Return to the surface, keep your face in the water, and exhale forcefully through the snorkel. A forceful exhalation will expel the water from the tube (**Fig. 178**). Then inhale carefully and slowly in case a small amount of water remains in the snorkel. Exhale again to force out any remaining water and then continue to breathe normally. This technique is called the "blast method."

Another way to empty the snorkel is by the tilt or displacement method (**Fig. 179**). When the wrist of your extended arm breaks the surface, tilt your head back, look up, and exhale gently. When your snorkel clears the surface, return your head to a facedown position and inhale gently. If there is still water in the snorkel, blow forcefully.

Entering the Water Wearing Snorkeling Equipment

After gaining confidence with mask, fins, and snorkel, you need to learn how to enter the water safely while wearing the equipment. Two entries—the stride jump and the sit-in—are commonly used and should be practiced until you can make a smooth entry from a low-level pool deck, boat, or dock. Never attempt a headfirst entry.

- **Stride jump**—The stride jump is for entering from heights of less than 3 feet. Put on your fins. Put on your mask. Place the snorkel in your mouth, and hold it firmly with one hand covering the faceplate so that the mask is not dislodged when you enter the water. Keep the elbow of the hand holding the mask close to your chest. Keep the other arm extended down and forward. Observe the water to ensure that no swimmers or obstacles are in the way. Step out with a long stride over the water; do not lean forward (*Fig. 180*). When your fins touch the surface, quickly bring your legs together with your toes pointed, as in the scissors kick. The kicking action will stop the downward motion and keep your head and shoulders above the water.
- **Sit-in**—The sit-in can be started from a standing or sitting position with your back to the water. Put on your fins. Put on your mask and adjust the snorkel in your mouth. Hold the mask firmly with one hand covering the faceplate and your elbow close to your chest. Place your other hand by your side. If standing, place your heels even with the edge of the pool. Tuck your chin onto your chest, and pull your knees to your chest as you sit backward into the water. If entering from a boat, sit on the side and hold on with one hand while holding on to the mask with your other hand. Tuck your chin on your chest, pull your knees to your chest gently and slowly, and lean back into the water (*Fig. 181*). (This entry is also called the “back roll entry.”) You must ensure that there are no obstacles in the water before making the entry. You should lean back until gravity pulls you in; do not lean back suddenly or forcefully.

This entry may leave you somewhat disoriented and affords no protection against objects in the water. It should only be performed in water that is at least 9 feet deep.

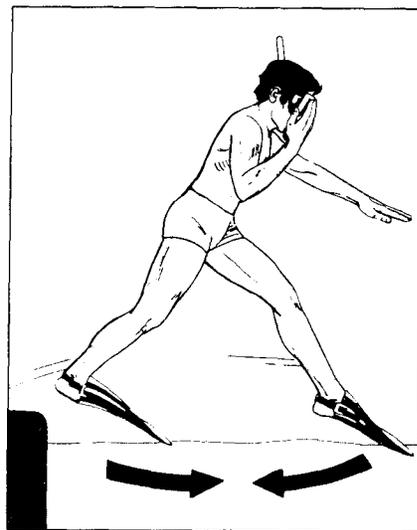


Figure 180
Stride jump



Figure 181
Sit-in

Mask, Fins, and Snorkel Skills

Swimming While Wearing Snorkeling Equipment

The normal swimming position when you are wearing mask, fins, and snorkel is horizontal with your arms at your side and your face in the water (*Fig. 182*). When using a snorkel, you can scan the bottom for a submerged victim or object without having to lift your face to breathe.

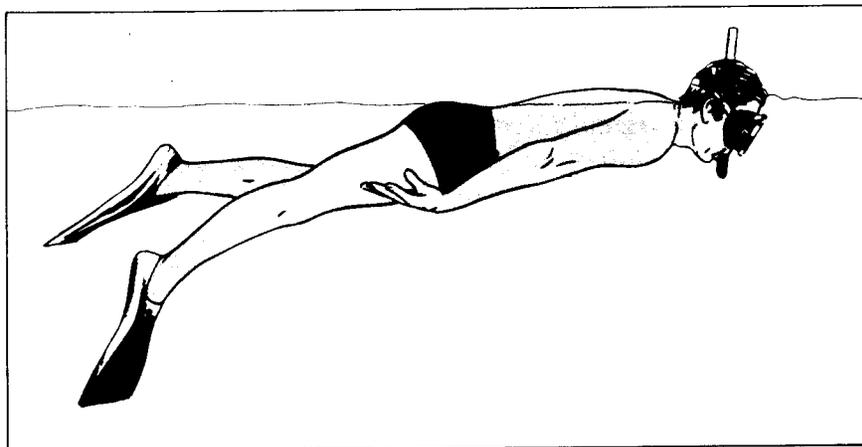


Figure 182
Swim with snorkeling equipment

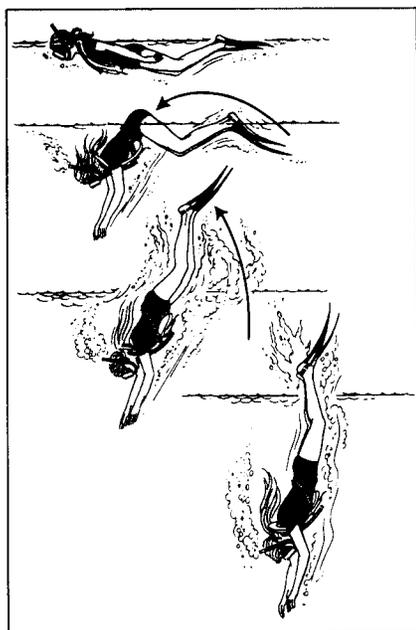


Figure 183
Surface dive with snorkel

Surface Diving and Resurfacing

You perform a surface dive by rolling forward into a tuck or pike position to descend (*Fig. 183*). Remember to clear your ears. When you return to the surface, stop, look up, listen, and extend a hand overhead before surfacing. This safety precaution should be standard procedure when surfacing. Upon reaching the surface, clear your snorkel and resume normal breathing.

Recovery of a Submerged Victim

When a victim has disappeared beneath the water, recovery must be made with the utmost speed if the victim is to be resuscitated. The location of the victim must be reasonably well established. Observations of untrained eyewitnesses often are inaccurate in their estimation of time, location, and circumstances surrounding a drowning.

While scuba equipment is preferred for underwater search and recovery in deep, open water, a scuba rescue team is usually not immediately available. Therefore, lifeguards will need to use less effective but immediate means of searching for and recovering a submerged victim. During such a rescue, the facility's emergency action plan should be activated and a scuba rescue team summoned.

Depth of water, clarity, temperature, waves, and current are all factors that must be considered in search and rescue. Other potential hazards include aquatic plants and other aquatic life, monofilament, and boat traffic. The availability of additional help and search and rescue equipment will determine the best procedures to use.

Recovery of a Submerged Victim by Surface Diving

If the victim goes under as you are approaching, you must get to the victim as quickly as possible. Pace yourself, however, to avoid becoming too tired. Keep your eyes fixed on the spot where the victim was last seen. Upon reaching the spot, perform a surface dive (*Fig. 184*). When you locate the victim, grasp the victim's wrist, arm, or armpit from behind. Plant your feet if the bottom is firm, push off, and stroke and kick your way to the surface. If the bottom is soft or muddy, you must depend entirely on your arm and leg strokes to bring the victim to the surface. Check the victim's breathing and begin rescue breathing, if necessary, as soon as possible after you reach the surface.

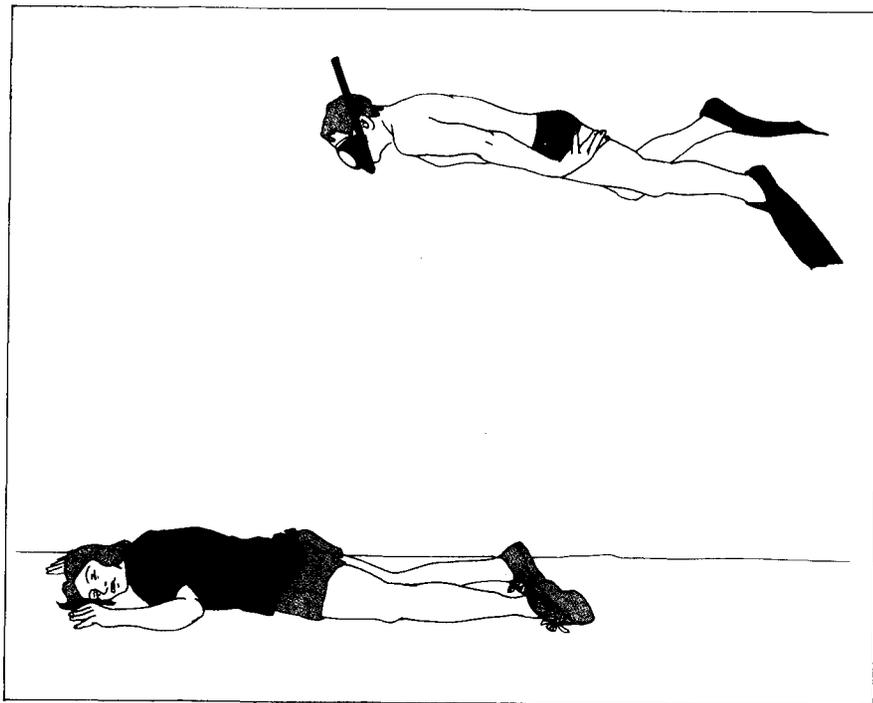


Figure 184
Locating submerged victim

Mask, Fins, and Snorkel Skills

When there is doubt as to the location of a victim, you must survey the situation and plan a course of action. Determine the general area in which the victim is supposed to have gone under. Look for bubbles rising to the surface. If there are none and the water is clear, systematically swim across the area with your face in the water and scan the bottom. If the bottom is dark, you may detect light clothing, a bright swimming suit, or the gleam of bare arms and legs.

On white sand, dark clothing and dark hair can indicate the location of a victim. When you locate the victim, surface dive, swim to a position behind him or her, grasp the wrist, upper arm, or armpit, and swim to the surface. Begin rescue breathing on the surface, if possible.

In murky or dark water where the bottom can be reached by surface diving, search the area in which the swimmer was last seen by using a series of systematic feetfirst surface dives. Attempt to cover the designated area of the bottom in a series of overlapping lanes until the victim is found or until you are satisfied that the victim is not in that section. After each dive, swim along the bottom for 2 or 3 body lengths and then surface. Move back about 3 feet and then repeat the process. Attempting to swim along the bottom for a considerable distance can be exhausting; and, if the victim is not found on the first few attempts, you may be unable to continue long enough to cover a designated area in the search. Diving repeatedly, even in shallow water (8 to 10 feet), is physically very demanding. Using a systematic formation or pattern whereby every square foot of the bottom can be examined is the best technique, whether the searching is done by a single guard or a group of lifeguards.