

# Rescue Skills



A lifeguard must always be prepared to enter the water to make rescues. After determining that the victim needs help, the lifeguard should assess the victim's condition and use an appropriate rescue. The skills in this chapter can be used in most aquatic environments, although they may have to be modified in some situations.

## GENERAL PROCEDURES FOR A WATER EMERGENCY

In all rescue situations, the lifeguard recognizes an emergency in the water, activates the emergency action plan (EAP) (Fig. 5-1), uses rescue equipment and follows these general procedures:

**LIFEGUARDING TIP: A lifeguard must always provide for his or her own safety and the safety of the victim when making a rescue.**

- 1. Assesses the victim's condition.** Determines whether the victim is a distressed swimmer, is an active or passive drowning victim at the surface or submerged or has a possible head, neck or back injury.
- 2. Safely enters the water, if needed.** Chooses the best entry based on—
  - Water depth.
  - Whether the lifeguard station is elevated or at ground level.
  - Obstacles in the water.
  - Location and condition of the victim.
  - Facility design.
- 3. Performs an appropriate rescue.** Swims to the victim, if needed, and performs a rescue appropriate for the victim's condition.
- 4. Moves the victim to safety.** Brings the victim to the side of the pool or pier or to the shoreline.
- 5. Removes the victim from the water.** Uses the removal technique appropriate for the victim's condition and the facility's design.

- 6. Provides emergency care as needed.** Depending upon the victim's condition, gives rescue breathing, cardiopulmonary resuscitation (CPR) or other care until emergency medical services (EMS) personnel arrive.

## RESCUE EQUIPMENT

The use of rescue equipment makes a rescue safer for both the lifeguard and the victim. The primary piece of rescue equipment used by lifeguards is the rescue tube. However, state and local laws and regulations may require facilities to have specific rescue equipment available, such as ring buoys and reaching equipment. Specific or specialty rescue equipment may also be used by a facility due to the nature of the environment, such as in a waterfront environment.

### Rescue Tube

The *rescue tube* is a 45- to 54-inch vinyl, foam-filled tube with an attached tow line and shoulder strap (Fig. 5-2).

When performing patron surveillance, a lifeguard should always keep a rescue tube ready to use.

- Keep the strap of the rescue tube over the shoulder and neck.
- Hold the rescue tube across the thighs when sitting in a lifeguard chair or across the stomach when standing.
- Hold the excess line to keep it from getting caught in the chair or other equipment when starting the rescue.

### Reaching Pole and Shepherd's Crook

A *reaching pole* is made of aluminum or fiberglass and is usually about 10 to 15 feet long. The *shepherd's crook* is a reaching pole with a large hook on one end (Fig. 5-3). A reaching pole or shepherd's crook can be used to reach out to a distressed victim to pull him or her to safety.



Fig. 5-1



Fig. 5-2

Fig. 5-3



### Ring Buoy

The *ring buoy* is made of buoyant material typically ranging from 20 to 30 inches in diameter (Fig. 5-4). A ring buoy with an attached line allows the lifeguard to pull the victim to safety without entering the water. The typical line length ranges from 30 to 60 feet.

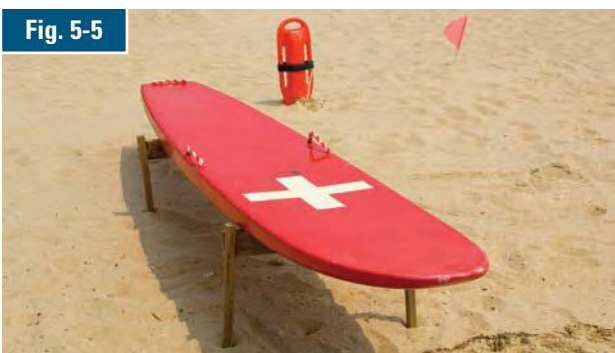
### Rescue Board

Some waterfronts use *rescue boards* as standard equipment. Rescue boards are made of plastic or fiberglass and are shaped similar to a surf board (Fig. 5-5). The rescue board is fast, stable and easy to use. It is used by

Fig. 5-4



Fig. 5-5



### Rescue Buoy

Rescue buoys, also known as rescue cans or torpedo buoys, often are used as rescue equipment at waterfronts and surf beaches. Most rescue buoys are made of lightweight, hard, buoyant plastic and vary in length from 25 to 34 inches. Molded handgrips along the sides and rear of the buoy allow the victim to keep a firm hold on the buoy. Rescue buoys are buoyant enough to support multiple victims.



While approaching the victim, the lifeguard should allow the rescue buoy to trail behind. When close to the victim, the lifeguard should reach back and grasp the buoy with one hand, extend the buoy to the victim and carefully tow the victim back to safety. The buoyancy of the rescue buoy, along with reassuring talk, should comfort and calm the victim.

lifeguards to quickly paddle out long distances and can hold the lifeguard and one or more victims.

### ENTRIES

There are several ways to enter the water for a rescue. The type of entry used depends on—

- The depth of the water.
- The lifeguard station—whether it is elevated or at ground level.

Fig. 5-6



- Obstacles in the water, such as people, lane lines and safety lines.
- The location and condition of the victim.
- The design of the facility.

### Slide-In Entry

The slide-in entry is slower than other entries, but it is the safest entry to use in most conditions (Fig. 5-6). It is especially useful in shallow water, crowded pools or when a victim with a head, neck or back injury is close to the side of the pool or pier. To perform a slide-in entry, the lifeguard should—

1. Sit down on the edge of the pool deck or pier, facing the water. Place the rescue tube on the surface of the pool deck or pier or in the water.
2. Gently slide into the water.
3. Retrieve the rescue tube.
4. Place the rescue tube across the chest with the tube under the armpits and begin the approach.

### Stride Jump

A lifeguard should use the stride jump with a rescue tube only if the water is at least 5 feet deep and he or she is no more than 3 feet above the water. To perform a stride jump, the lifeguard should—

1. Squeeze the rescue tube high against the chest with the tube under the armpits (Fig. 5-7, A).
2. Hold the excess line to keep it from getting caught in the lifeguard chair or other equipment when jumping into the water.
3. Leap into the water with one leg forward and the other leg back (Fig. 5-7, B).
4. Lean slightly forward, with the chest ahead of the hips, and focus on the victim when entering the water.
5. Squeeze or scissor the legs together for upward thrust (Fig. 5-7, C).
6. Focus on the victim and begin the approach (Fig. 5-7, D).

Fig. 5-7



A



B



C

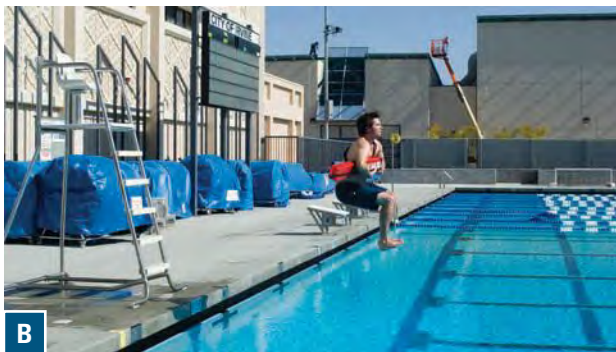
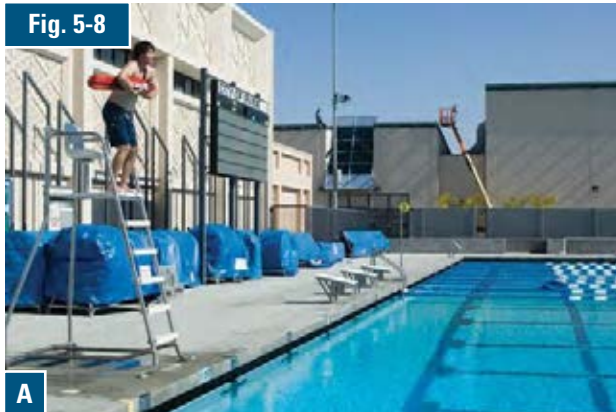


D

### Compact Jump

A lifeguard should use the compact jump when more than 3 feet above the water, such as on a lifeguard stand or pier, but only if the water is at least 5 feet deep. The compact jump can also be done from a pool deck into the water. To perform a compact jump, the lifeguard should—

1. Squeeze the rescue tube high against the chest with the tube under the armpits.
2. Hold the excess line to keep it from getting caught in the lifeguard chair or other equipment when jumping into the water (Fig. 5-8, A).



3. Jump out and away from the lifeguard chair, pool deck or pier (Fig. 5-8, B). In a wave pool, time the jump to land on the crest (top) of a wave (Fig. 5-8, C).
4. Bend the knees and keep the feet together and flat to absorb the shock if hitting the bottom. Do not point the toes or keep the legs straight or stiff.
5. Let the buoyancy of the rescue tube bring the lifeguard back to the surface.
6. Focus on the victim when surfacing, and begin the approach.

### Run-and-Swim Entry

To enter the water from a gradual slope, such as a shoreline or wave pool, the lifeguard should use the run-and-swim entry. To perform a run-and-swim entry, the lifeguard should—

1. Hold the rescue tube and the excess line and run into the water, lifting the knees high to avoid falling (Fig. 5-9, A).
2. When the lifeguard can no longer run, he or she should either put the rescue tube across the chest and lean forward or drop the tube to the side and start swimming, letting the rescue tube trail behind (Fig. 5-9, B). Do not dive or plunge head-first into the water; this could result in a serious head, neck or back injury.



## RESCUE APPROACHES

The best way to swim to the victim is with a modified front crawl or breaststroke (**Fig. 5-10, A-B**). The lifeguard should keep the rescue tube under the armpits or torso, and swim toward the victim with the head up. The lifeguard should keep the rescue tube in control at all times. For longer distances, or if the rescue tube slips out from under the arms or torso while swimming to the victim, the lifeguard can let the tube trail behind (**Fig. 5-11**). Slow down and reposition the tube before contacting the victim.

Fig. 5-10

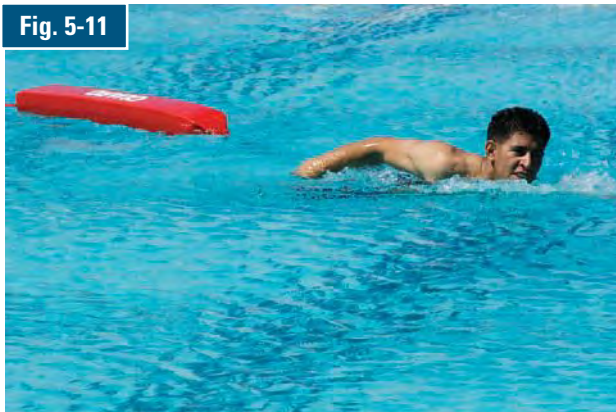


A



B

Fig. 5-11



In shallow water it may be quicker or easier to walk to the victim. Hold the rescue tube at the side and walk quickly toward the victim. Slow down and reposition the tube before contacting the victim.

## ASSISTS

Assists are the most common help given to patrons, especially at waterparks. Assists include—

- Helping patrons enter and exit an attraction.
- Helping patrons in or out of inner tubes or rafts.
- Helping tired swimmers reach shallow water or a ladder.
- Helping a patron who is stuck in a slide or becomes frightened. In this instance, the lifeguard should—
  - Climb up a slide to reach a patron, or catch a patron coming down.
  - Talk to the patron to help calm him or her.
  - If a rescue is needed instead of an assist, activate the EAP.

### Simple Assist

In shallow water, a simple assist may be as easy as helping a person to stand. This can be done in two ways:

- The lifeguard keeps the rescue tube between him or herself and the person who needs help, reaches across the tube and grasps the person at the armpit to help the person maintain his or her balance (**Fig. 5-12**).
- If the person is underwater, the lifeguard should grasp under the person's armpits with both hands and help him or her stand up.

### Extension Assist from the Deck

The safest way to help is to stay on the pool deck or pier and extend a rescue tube to a distressed swimmer who is close to the side of the pool or a pier. To

Fig. 5-12



Fig. 5-13



perform an extension assist from the deck, the lifeguard should—

1. Remove the shoulder strap.
2. Hold the shoulder strap in one hand, and extend the rescue tube to the distressed swimmer with the other hand (Fig. 5-13). The lifeguard should be sure to keep his or her body weight on the back foot and crouch to avoid being pulled into the water.
3. Tell the victim to grab the rescue tube.
4. Slowly pull the victim to safety.

### Reaching Assist with Equipment

If the victim is close enough to the deck, pier or shoreline, use a reaching assist to pull him or her to safety. To perform a reaching assist with equipment, the lifeguard should—

1. Brace him or herself on a pool deck, pier surface or shoreline.
2. Extend a reaching pole or shepherd's crook to the victim (Fig. 5-14, A).
3. When the victim grabs the pole or the crook, slowly and carefully pull the victim to safety. Keep the body low and lean back to avoid being pulled into the water (Fig. 5-14, B).

**LIFEGUARDING TIP: Be careful not to strike other patrons when extending the reaching pole or shepherd's crook to the victim during the assist.**

### Throwing Assist

Throwing assists work well for distressed swimmers who are beyond the range of a reaching device. To perform a throwing assist with a ring buoy, the lifeguard should—

1. Hold the coil of line in the open palm of the nonthrowing hand and grasp the side of the ring buoy with the throwing hand (Fig. 5-15, A). If the line has a wrist loop,

Fig. 5-14

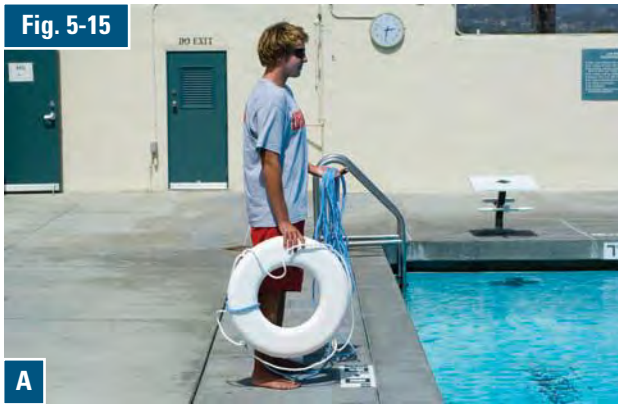


place the hand that will hold the line through it. If there is not a wrist loop, step on the nonthrowing end of the line.

2. Hold the buoy vertically, step back with the leg on the throwing side, swing the ring buoy backwards and then forward for an underhand toss (Fig. 5-15, B-C).
3. Aim the throw so that the ring buoy lands just beyond the victim with the line lying on the victim's shoulder (Fig. 5-15, D-E). Tell the victim to grab the ring buoy. If there is a crosswind or current, throw upwind or up current of the victim.
4. After the victim has a firm grasp on the ring buoy or line, drop the remaining coil, if any, and pull the victim to safety. Keep the body low and lean back to avoid being pulled into the water (Fig. 5-15, F). Reassure the victim.
5. Slowly pull the victim to safety by reaching out with one hand and grasping the line with the thumb inward. Pull the line in to the side with that hand while reaching out with the other (Fig. 5-15, G). Continue the alternate pulling and reaching action until the victim is at the side or is able to stand in shallow water.

A successful throwing assist for an active drowning victim requires the ring buoy to land within the grasp of

Fig. 5-15



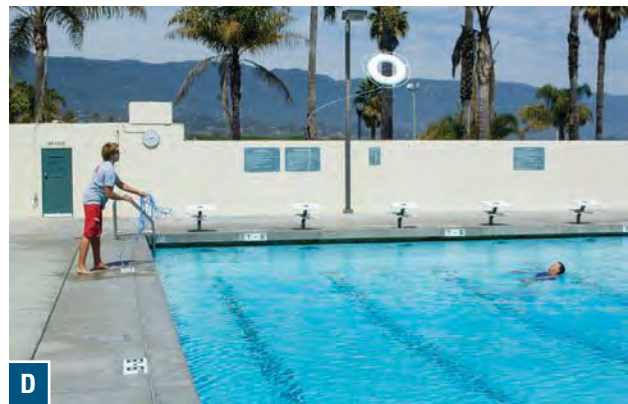
A



B



C



D



E



F



G

the person's arm movements. Victims will not be able to reach for or move even a short distance toward either the line or the buoy.

## RESCUES AT OR NEAR THE SURFACE

Use the following skills to rescue a distressed swimmer or an active drowning victim at or near the surface of the water.



Fig. 5-16



A



B

### Swimming Extension Rescue

The swimming extension rescue works well for a distressed swimmer. To perform a swimming extension rescue, the lifeguard should—

1. Approach the victim from the front (Fig. 5-16, A).
2. Extend the end of the rescue tube to the victim (Fig. 5-16, B).
3. Tell the victim to hold on to the rescue tube and kick if he or she can.
4. Tow the victim to safety. Be sure to maintain visual contact.
5. Reassure the victim.

### Active Drowning Victim Rear Rescue

The active drowning victim rear rescue can be used for either a distressed swimmer or an active drowning victim. To perform an active drowning victim rear rescue, the lifeguard should—

1. Approach the victim from behind (Fig. 5-17, A). This may require swimming past and around the victim.
2. Reach under the victim's armpits and grasp the shoulders firmly (Fig. 5-17, B).
3. Squeeze the rescue tube between the lifeguard's chest and the victim's back (Fig. 5-17, C).
4. Keep the lifeguard's head to one side to avoid being hit by the victim's head if it moves backward.
5. Lean back and pull the victim onto the rescue tube (Fig. 5-17, D).

Fig. 5-17



A



B



C



D

6. Use the rescue tube to support the victim so the victim's mouth is out of the water.
7. Reassure the victim.
8. Tow the victim to safety.

### Passive Drowning Victim Rear Rescue

Use the passive drowning victim rear rescue when the victim is at or near the surface, seems unconscious and a head, neck or back injury is not suspected. (If a head, neck or back injury is suspected, use the techniques described in Chapter 10.) A passive drowning victim may be floating face-down at or near the surface in a vertical-to-horizontal position. The goal is to put the rescue tube under the victim's shoulders or back to support him or her face-up. To perform a passive drowning victim rear rescue, the lifeguard should—

1. Approach the victim from behind (**Fig. 5-18, A**).
2. Reach under the victim's armpits and grasp the shoulders firmly (**Fig. 5-18, B**). The lifeguard may be high on the victim's back when doing this.
3. Squeeze the rescue tube between the lifeguard's chest and the victim's back.
4. Keep his or her head to one side to avoid being hit by the victim's head if it moves backward.
5. Roll the victim over by dipping the lifeguard's shoulder and rolling onto the back so that the victim is face-up on top of the rescue tube (**Fig. 5-18, C**).
6. Tow the victim to safety (**Fig. 5-18, D**). For greater distances, use one hand to stroke. Reach the right arm over the victim's right shoulder and grasp the rescue tube. Then use the left hand to stroke. Or reach with the left arm and stroke with the right hand.

## RESCUING A SUBMERGED VICTIM

Sometimes a drowning victim is below the surface. This could be in shallow water or in deep water beyond the lifeguard's reach. This may occur when nonswimmers or very weak swimmers enter water over their head. A victim may also submerge after a cardiac arrest, stroke, seizure or other medical emergency resulting in unconsciousness in the water.

### Passive Submerged Victim—Shallow Water

To rescue a submerged passive victim in shallow water, the lifeguard should—

1. Swim or quickly walk to the point near the victim's side. Let go of the rescue tube but keep the strap around the shoulders.
2. Face in the same direction as the victim, submerge and reach down to grab the victim under the armpits (**Fig. 5-19, A**).
3. Simultaneously, pick the victim up, move forward and roll the victim face-up upon surfacing (**Fig. 5-19, B**).
4. Grab the rescue tube and position it under the victim's shoulders (**Fig. 5-19, C**).

Fig. 5-18



A



B



C



D

Fig. 5-19



A



B



C



D



E

5. Move the victim's arm that is closest to the lifeguard down to the side of the victim. Reach the right arm over the victim's right shoulder and grasp the rescue tube or reach with the left arm over the victim's left shoulder and grasp the rescue tube (Fig. 5-19, D).
6. Move the victim quickly to safety (Fig. 5-19, E).

### Active or Passive Submerged Victim— Deep Water

#### Feet-First Surface Dive

In deep water, a lifeguard goes underwater with a feet-first surface dive to rescue or search for a submerged victim. To properly perform a feet-first surface dive, the lifeguard should—

1. Swim to a point near the victim. Release the rescue tube but keep the strap around the shoulders.
2. Position his or her body vertically, then at the same time press both hands down and kick strongly to raise his or her body out of the water (Fig. 5-20, A).
3. Take a breath with the arms at the sides and let his or her body sink underwater. Keep the legs straight and together (Fig. 5-20, B).
4. As downward momentum slows, turn the palms outward and sweep the hands and arms upward and overhead.
5. Repeat this arm movement until deep enough to reach the victim.

Fig. 5-20



A



B

### Active or Passive Submerged Victim Rescue—Deep Water

A submerged victim may be passive or active. To perform the following rescue skill in both cases, the lifeguard should—

1. Perform a feet-first surface dive, and position him or herself behind the victim (Fig. 5-21, A-B).
2. Reach one arm under the victim's arm (right arm to right side or left arm to left side) and across the victim's chest (Fig. 5-21, C). Hold firmly onto the victim's opposite side.
3. When the lifeguard has hold of the victim, he or she should reach up with the free hand and grasp the towline. Pull it down and hold it in the same hand that is holding the victim (Fig. 5-21, D). Keep pulling the towline in this way until reaching the surface. Once at the surface, the lifeguard should grasp and position the rescue tube so that it is squeezed between his or her chest and the victim's back (Fig. 5-21, E).
4. Reach the free arm over the tube and under the victim's armpit. Grasp his or her shoulder firmly (right arm to right shoulder or left arm to left shoulder) (Fig. 5-21, F).
5. Move the other arm from across the victim's chest, and grasp the victim's shoulder firmly.

6. Hold the victim in a face-up position on the rescue tube (Fig. 5-21, G).
7. Quickly move the victim to safety.

**LIFEGUARDING TIP:** Depending on how deep the victim is, the lifeguard should use one of these techniques:

- If the strap must be removed to descend and reach the victim, hold onto it so that the rescue tube can be used to help bring the victim to the surface.
- If the victim is deeper than the strap and towline can extend, release the strap and towline, grasp the victim, push off the bottom (if possible) and kick to the surface. Once at the surface, place the rescue tube in position behind the victim and continue the rescue.
- If the strap of the rescue tube is released, it might not be within reach when returning to the surface. The side of the pool or pier may be closer than the rescue tube. In this situation, move to safety without the rescue tube. Support the victim in a face-up position, and if possible, call for help from another lifeguard.

## ESCAPES

A distressed swimmer or an active drowning victim may grab the lifeguard if the rescue technique is faulty or if the rescue tube slips out of position. The lifeguard should always hold onto the rescue tube because it helps both the victim and rescuer stay afloat. If the rescue tube is lost and a drowning victim grabs onto the lifeguard, the front or rear head-hold escape should be used.

To perform a front head-hold escape, the lifeguard should—

1. As soon as the victim grabs hold, take a quick breath, tuck the chin down, turn the head to either side, raise the shoulders and submerge with the victim (Fig. 5-22, A).
2. Once underwater, grasp the victim's elbows or the undersides of the victim's arms just above the elbows. Forcefully push up and away. Keep the chin tucked, the arms fully extended and the shoulders raised until free (Fig. 5-22, B).
3. Quickly swim underwater out of the victim's reach. Surface and reposition the rescue tube and try the rescue again (Fig. 5-22, C).

Fig. 5-21



Fig. 5-22



A



B



C

To perform a rear head-hold escape, the lifeguard should—

1. If the victim grabs hold from behind, take a quick breath, tuck the chin down, turn the head to either side, raise the shoulders and submerge with the victim (Fig. 5-23, A).
2. Once underwater, grasp the victim's elbows or the undersides of the victim's arms just above the elbows. Forcefully push up and away while twisting the head and shoulders. Keep the chin tucked, the arms fully extended and the shoulders raised until free (Fig. 5-23, B).

Fig. 5-23



A



B



C

3. Quickly swim underwater out of the victim's reach. Surface and reposition the rescue tube and try the rescue again (Fig. 5-23, C).

## MULTIPLE-VICTIM RESCUE

Sometimes two or more victims need to be rescued. A victim may grab a nearby swimmer to try to stay above the water. Several lifeguards should perform a multiple-victim rescue if possible. At least one lifeguard should check the bottom for possible submerged victims while other lifeguards rescue the victims at the surface.

If there is only one lifeguard rescuing two victims who are clutching each other, the lifeguard should—

1. Approach one victim from behind (Fig. 5-24, A).
2. Reach under the victim's armpits, and grasp the shoulders. Squeeze the rescue tube between his or her chest and the victim's back. Keep the head to one side of the victim's head (Fig. 5-24, B).
3. Use the rescue tube to support both victims with their mouths out of the water. Talk to the victims to help reassure them (Fig. 5-24, C).
4. Support both victims until other lifeguards arrive or the victims calm down enough to help move to safety.

Fig. 5-24



A



B



C

**LIFEGUARDING TIP: The buoyancy of the rescue tube will keep the lifeguard and the victims afloat until other lifeguards arrive. The lifeguard should reassure the victims and continue to support them on the rescue tube. Once they calm down, they may be able to help move to safety.**

## REMOVAL FROM WATER

Sometimes a victim is unconscious or is too exhausted to climb out of the water, even on a ladder. The decision to remove the victim depends on the victim's condition and size, how soon help is expected to arrive and whether anyone can help. If a victim needs first aid, rescue breathing or CPR, remove him or her from the water immediately and make sure EMS personnel have been summoned.

### Two-Person Removal from the Water Using a Backboard

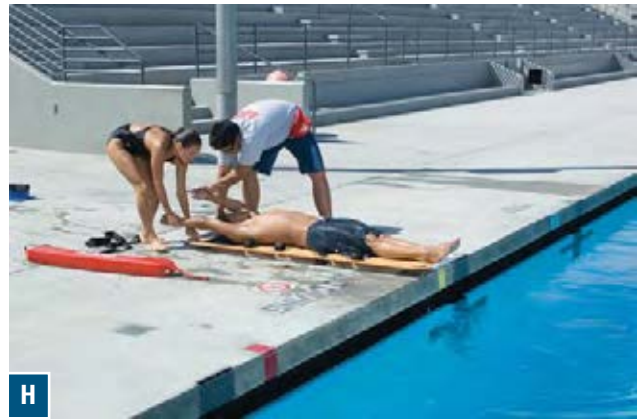
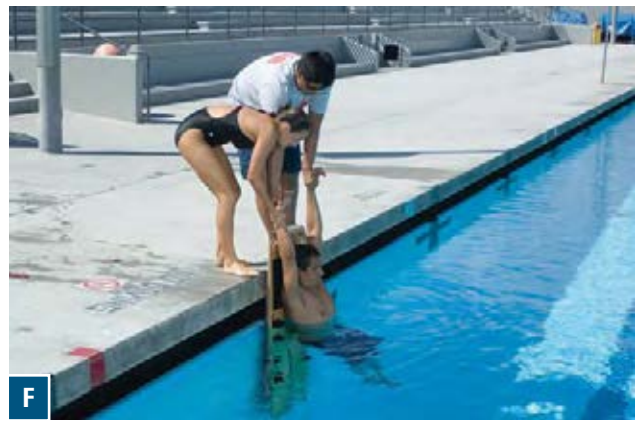
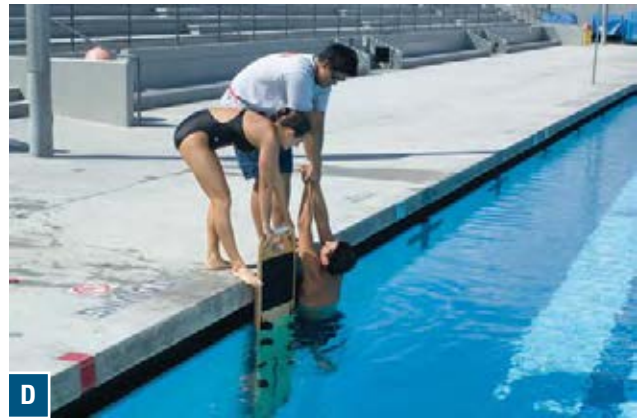
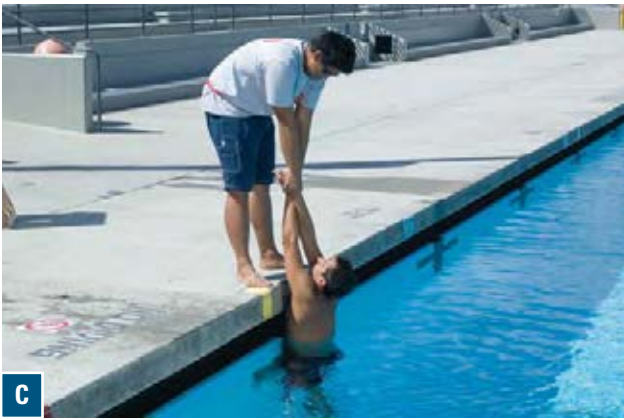
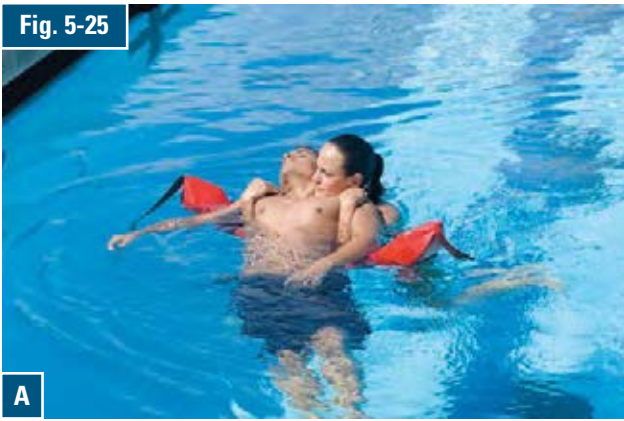
To perform the two-person removal from the water using a backboard at the side of a pool or pier:

1. The primary rescuer brings the victim to the side of the pool and turns him or her to face the deck (Fig. 5-25, A). A second rescuer brings a backboard with the head immobilizer and the straps removed if possible.
2. The second rescuer on deck crosses hands to grab the victim's opposite wrist and pulls the victim up slightly to keep the head above the water and away from the pool edge (Fig. 5-25, B-C). Support the victim's head so that it does not fall forward.
3. The primary rescuer climbs out of the water, removes the rescue tube and gets the backboard.
4. The primary rescuer guides the backboard, foot-end first, straight down into the water next to the victim (Fig. 5-25, D). The second rescuer then turns the victim onto the backboard (Fig. 5-25, E). Each rescuer then quickly grasps one of the victim's wrists and one of the handholds of the backboard (Fig. 5-25, F).

**LIFEGUARDING TIP: Each rescuer can place his or her foot that is closest to the backboard against the edge of the board to help keep the backboard in-line and vertical.**

5. When the primary rescuer gives the signal, both rescuers pull the backboard and victim onto the deck, resting the underside of the board against the edge of the pool (Fig. 5-25, G). (Remember to lift with the legs

Fig. 5-25





and not with the back.) Step backward and then lower the backboard onto the deck (**Fig. 5-25, H**).

6. Provide immediate care based on the victim's condition. For example, if the victim is unconscious and not breathing, perform rescue breathing. Continue care until EMS personnel arrive and take over.

Do not use the two-person removal from the water using a backboard on a victim with a suspected head, neck or back injury. However, if the victim is unconscious and not breathing and shows no signs of life, immediately remove the victim from the water. See Chapter 10 for information on removing an unconscious victim with a suspected head, neck or back injury.

### Walking Assist

Use the walking assist to help a conscious victim walk out of shallow water. To perform a walking assist, the lifeguard should—

1. Place one of the victim's arms around his or her neck and across the shoulder.
2. Grasp the wrist of the arm that is across the shoulder. The lifeguard then wraps his or her free arm around the victim's back or waist to provide support (**Fig. 5-26**).
3. Hold the victim firmly and assist him or her in walking out of the water.

**Fig. 5-26**



**Fig. 5-27**



**A**

### Beach Drag

On a gradual slope from a waterfront beach or a pool with a zero-depth exit, the beach drag is a safe, easy way to remove someone who is unconscious or who cannot walk from the water. This technique should not be used if the victim is suspected to have a head, neck or back injury. To perform a beach drag, the lifeguard should—

1. Stand behind the victim and grasp him or her under the armpits, supporting the victim's head as much as possible with the forearms (**Fig. 5-27, A**). Let the rescue tube trail behind, being careful not to trip on the tube or line.
2. Walk backward and drag the victim to the shore. Use the legs and not the back. A beach drag can also be performed by two rescuers (**Fig. 5-27, B**).
3. Remove the victim completely from the water, or at least until the head and shoulders are out of the water.

For an unconscious victim or a victim in shock, position the victim on a sloping beach parallel to the shore line and provide appropriate care.

### Front-and-Back Carry

Use the front-and-back carry in shallow water with a zero-depth exit if the person is unconscious or cannot get out of the water without help. Do not use this method if the victim is suspected to have a head, neck or back injury. To perform a front-and-back carry, the lifeguard should—

1. Call a second rescuer for assistance.
2. From behind the victim, reach under the armpits. Grasp the victim's right wrist with the right hand and left wrist with the left hand. Cross the victim's arms across his or her chest.
3. The second rescuer stands between the victim's legs, facing away from the victim. This rescuer bends down and grasps the victim under the knees.
4. On signal, both rescuers lift the victim and carry him or her out of the water while walking forward (**Fig. 5-28**).



**B**

Fig. 5-28



## ADDITIONAL RESCUE SKILLS AT WATERFRONTS

### Using the Rescue Board

At some waterfronts, a rescue board will be used to patrol the outer boundaries of a swimming area. A rescue board also may be kept by the lifeguard stand ready for emergency use. If the facility uses a rescue board, lifeguards should learn how to carry the board effectively, paddle quickly and maneuver it in all conditions. Wind, currents and waves can affect how the board handles. Practice using a rescue board often to maintain skills. Keep the board clean of

suntan lotion and body oils, which can make it slippery.

To use a rescue board, the lifeguard should—

1. Hold onto the sides about mid-board when entering the water (**Fig. 5-29, A**).
2. When the water is knee-deep, lay the rescue board on the water and push it forward. Climb on just behind the middle and lie down (**Fig. 5-29, B**).
3. Paddle until reaching the victim. However, to effectively paddle and keep the victim in sight, paddle a few strokes and get into a kneeling position.
4. When patrolling on a rescue board, sit or kneel on it for better visibility.

To approach the victim on a rescue board, the lifeguard should—

1. In calm water, point the bow (front end) of the rescue board toward the victim.
2. From a kneeling position, paddle with both arms moving and recovering at the same time (butterfly arm stroke) (**Fig. 5-30, A**). From the prone position, paddle with either an alternating arm movement (front crawl arm stroke) or with both arms moving and recovering at the same time (**Fig. 5-30, B**).
3. Keep the head up and keep the victim in sight.
4. In rough water or high winds, adjust the angle of approach as needed.

Fig. 5-29



A



B

Fig. 5-30



A



B

Fig. 5-31



To rescue a distressed swimmer or active victim with a rescue board, the lifeguard should—

1. Approach the victim from the side so that the side of the board is next to the victim (Fig. 5-31, A).
2. Grasp the victim's wrist and slide off the rescue board on the opposite side (Fig. 5-31, B).
3. Help the victim reach his or her arms across the rescue board. Encourage the victim to relax and be calm (Fig. 5-31, C).
4. Kick to turn the board toward shore.
5. Hold the rescue board stable and help the victim onto it (Fig. 5-31, D).
6. Tell the victim to lie on his or her stomach facing the bow. Make sure that the bow is not underwater (Fig. 5-31, E).
7. Carefully climb onto the board from the back with the lifeguard's chest between the victim's legs. Be careful not to tip the rescue board, and keep the legs in the water for stability.

8. Paddle the rescue board to shore (Fig. 5-31, F).
9. Slide off the board and help the victim off the board and onto shore with a walking assist.

To rescue someone who is unconscious or cannot hold or climb onto the rescue board, the lifeguard should—

1. Approach the victim from the side (Fig. 5-32, A). Position the board so that the victim is slightly forward of the middle of the board (Fig. 5-32, B).
2. Grasp the victim's hand or wrist and slide off the board on the opposite side, flipping the rescue board over toward the lifeguard (Fig. 5-32, C). Hold the victim's arm across the board with the victim's chest and armpits against the far edge of the board (Fig. 5-32, D).

**LIFEGUARDING TIP: Make sure the victim's armpits are along the edges of the board.**

Fig. 5-32



A



B



C



D



E



F



G

3. Grasp the far edge of the rescue board with the other hand.
4. Kneel on the edge of the rescue board using the lifeguard's own body weight to flip the board toward the lifeguard again, catching the victim's head as the board comes down (Fig. 5-32, E).

**LIFEGUARDING TIP:** Use caution when flipping the board to ensure that the victim's armpits, and not the upper arms, remain along the edge of the board during the flip.

5. Position the victim lying down lengthwise in the middle of the board with the victim's head toward the bow (Fig. 5-32, F).
6. Kick to turn the board toward shore. Carefully climb onto the board from the back with the chest between the victim's legs. Be careful not to tip the rescue board, and keep the legs in the water for stability.
7. Paddle the rescue board to shore (Fig. 5-32, G).
8. Help the victim to safety with the walking assist, beach drag or other removal technique.

If unable to get the victim onto the rescue board, use the board for flotation and hold the victim face-up to breathe. Call for help and move toward shore.

### Using Water Craft for Rescues

If the facility uses water craft for rescues, a lifeguard should practice to become skilled in managing them in all rescue situations and all weather conditions. The facility must train lifeguards in the use of its water craft. To use a water craft for rescues, the lifeguard should follow these basic guidelines:

1. Extend an oar to the victim, and pull him or her to the stern (rear) of the craft (Fig. 5-33, A). It is the most stable area on which to hold.
2. If the victim cannot hold the oar or equipment, move the stern close to the victim. Pull the victim to the stern by the wrist or hand (Fig. 5-33, B).
3. Have the victim hang onto the stern while moving the water craft to safety.

### Throw Bags

The throw bag, or rescue bag, is a throwing device often carried by paddlers and swift-water rescue teams. It may also be used at swimming facilities, particularly in rescue water craft. The throw bag is a nylon bag with a foam disk and coiled line inside. The disk gives the bag its shape and keeps it from sinking, but it does not provide flotation for someone in the water. Some bags have attached cord locks that hold the line in the bag. Those should be loosened before use.

To use a throw bag, the lifeguard should hold the loop at the end of the line in one hand and throw the bag underhand with the other. Try to get the attention of the swimmer prior to the toss and throw the bag so the line lands across the victim's shoulder. The line plays out of the bag as it travels through the air. Tell the victim to grab onto the line and hold on. Pull the victim to safety. An overhand toss may be used for more distance or to throw over bushes along the shore. As with

a ring buoy, always consider wind conditions and water current when using a throw bag.

A throw bag is probably the easiest way to throw a line. It has the advantage of always being ready for use. The line is unlikely to tangle during storage or transport. If the first toss misses, then the rope is used as a regular heaving line with weight provided by the bag partially filled with water. It is not easy to quickly restuff a wet line for a second throw.



4. If the victim needs to be brought onto the craft because the water is very cold or the victim is fatigued, help the victim over the stern (Fig. 5-33, C).

When using a motorized water craft, lifeguards should follow these steps:

1. Always approach the victim from downwind and downstream.
2. Shut off the engine about three boat-lengths from the victim, and coast or paddle to the victim.
3. Bring the victim on board before restarting the engine.

Fig. 5-33



A



B



C

## SPECIAL SITUATIONS AT WATERFRONTS

### Sightings and Cross Bearings

When a drowning victim submerges, the lifeguard should swim or paddle to his or her last seen position. Take a sighting or a cross bearing to keep track of where the victim went underwater.

To take a sighting—

1. Note where the victim went underwater.
2. Line up this place with an object on the far shore, such as a piling, marker buoy, tree, building or anything identifiable. It is best if the first object can be lined up with another object on the shore (Fig. 5-34). This will help maintain a consistent direction when swimming, especially if there is a current.
3. Note the victim's distance from the shore along that line.

### Kayaks

Kayaking has become increasingly popular in recent years. Kayaks are used for recreation, touring, competition, sport and as rescue craft at some waterfront facilities. Advances in technology and the growing interest in kayaking have led to a wide variety of kayak designs, shapes and sizes. The kayak is a unique type of craft that requires specialized skills, distinctive from those needed for other small craft. Because of this, if a facility uses rescue kayaks, the facility manager or lifeguard supervisor will provide in-service training in operational skills (boat handling and paddling) and rescue techniques.



Fig. 5-34



With two lifeguards, a cross bearing can be used. To take a cross bearing—

1. Have each lifeguard take a sighting on the spot where the victim was last seen from two different angles (Fig. 5-35).
2. Ask other people to help out as spotters from shore.
3. Have both lifeguards swim toward the victim along their sight lines.
4. Have both lifeguards check spotters on shore for directions. Spotters communicate with megaphones, whistles or hand signals.
5. Identify the point where the two sight lines cross. This is the approximate location where the victim went underwater.

### Searching Shallow-Water Areas

To search water areas where the bottom cannot be seen:

1. A lifeguard oversees the search.
2. Ask adult volunteers and staff to link their arms and hold hands to form a line in the water. The shortest

Fig. 5-35



person should be in the shallowest water, and the tallest person should be in water no more than chest deep (Fig. 5-36, A).

3. Have the whole line slowly move together across the area, starting where the missing person was last seen.
4. As the line moves forward, have searchers sweep their feet across the bottom with each step. If there is a current, walk downstream. A typical search pattern is shown in Fig. 5-36, B.
5. Have only trained lifeguards search deeper areas.

### Searching Deep-Water Areas

#### Surface Dives

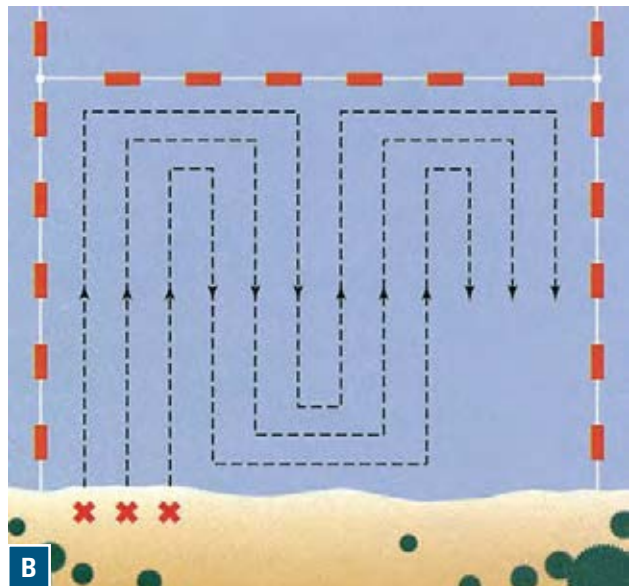
Surface dives enable lifeguards to submerge to moderate depths to search for a submerged victim. There are two types of surface dives: the feet-first surface dive and the head-first surface dive.

**Feet-First Surface Dive During a Line Search.** To perform a feet-first surface dive during a line search (a search-

Fig. 5-36



A



B

Fig. 5-37



A



B



C



D



E

ing pattern that is discussed later), the lifeguard should follow this sequence:

1. When the lead lifeguard gives the command, position the body vertically, then at the same time press down with both hands and kick strongly to raise the body out of the water (Fig. 5-37, A).
2. Take a breath with the arms at the sides and let the lifeguard's body sink underwater. Keep the legs straight and together with the toes pointed (Fig. 5-37, B).
3. As downward momentum slows, turn the palms outward and sweep the hands and arms upward and overhead (Fig. 5-37, C).
4. Repeat this arm movement until deep enough.

5. When deep enough, tuck the body and roll to a horizontal position (Fig. 5-37, D).

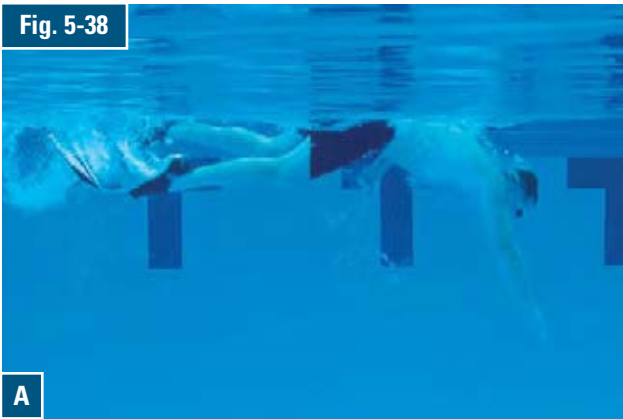
6. Extend the arms and legs and swim underwater (Fig. 5-37, E).

**Head-First Surface Dive During a Line Search.** To perform a head-first surface dive during a line search, the lifeguard should wait for the lead lifeguard to give the command, then—

1. Gain momentum using a swimming stroke.
2. Take a breath, and sweep the arms backwards to the thighs and turn them palm down (Fig. 5-38, A).



Fig. 5-38



3. Tuck the chin to the chest and flex at the hip sharply while the arms reach forward and downward toward the bottom (Fig. 5-38, B).
4. Lift the legs upward, straight and together so that the weight of the legs helps the descent. The lifeguard's body should be fully extended, streamlined and almost vertical (Fig. 5-38, C). The weight of the legs and forward momentum may take the lifeguard deep enough without further movement. But if necessary, the lifeguard should do a simultaneous arm pull with both arms to go deeper, then level out and swim forward underwater (Fig. 5-38, D).

**LIFEGUARDING TIP:** If the depth of the water is unknown or the water is murky, keep one arm extended over the head toward the bottom or use a feet-first surface dive.

#### Deep-Water Line Search

The deep-water line search is used in water greater than chest deep.

- Wearing masks and fins, several lifeguards form a straight line an arm's length from each other (Fig. 5-39).

- One lifeguard is the safety lookout above the water level on a pier, raft or water craft with rescue equipment in case a searcher gets in trouble or the missing person is found.
- On command from the lead lifeguard, all lifeguards do the same type surface dive (feet-first or head-first) to the bottom and swim forward a predetermined number of strokes—usually three. If the water is murky, searchers check the bottom by sweeping their hands back and forth in front of them, making sure to cover

Fig. 5-39



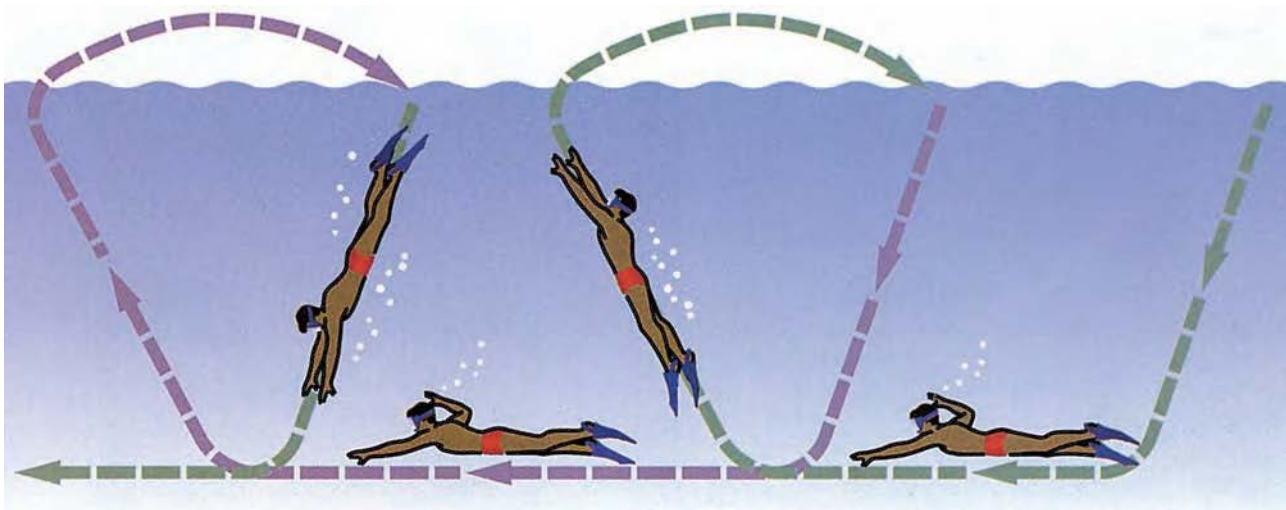


Fig. 5-40

the entire area. To keep the water from becoming cloudier, try to avoid disturbing silt and dirt on the bottom. Do not miss any areas on the bottom when diving and resurfacing.

- Return to the surface as straight up as possible.
- The lead lifeguard accounts for all searchers, reforms the line at the position of the person farthest back and backs up the line one body length. On command, the team dives again.
- Repeat this procedure until the victim is found or the entire area has been searched, by the line moving in one direction (Fig. 5-40).
- Repeat the line pattern at a 90-degree angle to the first search pattern.
- If the missing person is not found, expand the search to nearby areas. Consider whether currents may have moved the victim.
- Continue to search until the person is found or emergency personnel take over.
- If a lifeguard finds the victim, the lifeguard should bring the victim up by grasping the victim under the armpit and returning to the surface. Swim the victim to safety, keeping the victim on his or her back, with his or her face out of the water.

### Mask and Fins

A mask and fins should be used in an underwater search for a missing person. Use well-maintained equipment that is sized properly and fits well.

#### Mask

A mask is made up of soft, flexible material, with non-tinted, tempered safety glass and a head strap that is easily adjusted. A mask should be chosen that allows blocking or squeezing of the nose to equalize pressure.

Fig. 5-41



Some masks have additional features such as molded nosepieces or purge valves (Fig. 5-41). Regardless of the design, proper fit is the primary concern.

To check that a mask fits properly—

1. Place the mask against the face without using the strap. Keep hair out of the way.
2. Inhale slightly through the nose to create a slight suction inside the mask. This suction should keep the mask in place without being held. A good fit keeps water from leaking into the mask.
3. Adjust the strap so that the mask is comfortable. If it is too tight or too loose, the mask may not seal properly.
4. Try the mask in the water. If it leaks a little, tighten the strap. If it continues to leak, check it again with suction. A different size may be needed.
5. To prevent the mask from fogging, rub saliva on the inside of the face plate, and rinse the mask before putting it on. Commercial defoggers also can be used.

## Equalizing Pressure Underwater

When descending into deep water, the pressure may cause pain or injury if it is not equalized. Usually, the pressure is felt in the ears. It is important to equalize the pressure early and often. If unable to equalize the pressure because of a head cold or sinus problem, a rescuer should return to the surface rather than risk an injury. To relieve ear pressure—

1. Place the thumb and finger on the nose or on the nosepiece of a mask, if using a mask.
2. Pinch the nose and keep the mouth shut. Try to exhale gently through the nose until the pressure is relieved.
3. Repeat this as needed to relieve more ear pressure. If the ears hurt, do not attempt to go deeper until successfully equalizing the pressure.
4. If using a mask when descending, the mask squeezes the face because of the increased pressure. To relieve the squeezing, exhale a small amount of air through the nose into the mask.



## Fins

Fins provide more speed and allow users to cover greater distances with less effort (Fig. 5-42). A good fit is important for efficient movement. Fins come with different sized blades. Larger fins are faster but require more leg strength. Fins should match the user's ability.

Fig. 5-42



Wetting the feet and fins first makes it easier to put them on. Do not pull the fins on by the heels or straps of the fins. This can cause a break or tear. Push the foot into the fin, and then slide the heel or strap up over the heel.

Use a modified flutter kick that has a kicking action that is deeper and slower, with a little more knee bend, than the usual flutter kick. It is easier to swim underwater using only the legs. Keep the arms relaxed at the side. In murky water, hold the arms out in front to protect the head.

## Entering the Water with Mask and Fins

It is important for lifeguards to learn how to enter the water safely while wearing the equipment. Lifeguards should enter using a slide-in entry or with a stride jump when entering from a height of less than 3 feet. Never enter head-first wearing a mask and fins.

To do a stride jump with mask and fins, the lifeguard should—

1. Put one hand over the mask to hold it in place, keeping the elbow close to the chest.
2. Make sure no swimmers or other objects are below.
3. Step out with a long stride over the water, but do not lean forward (Fig. 5-43).
4. While entering the water, the fins slow the downward motion.
5. Swim keeping the arms at the side and face in the water.

Fig. 5-43



### Cold Water

A serious concern at many waterfront facilities is someone suddenly entering into cold water. Cold water is 70° F (21° C) or colder. As a general rule, if the water feels cold, consider it cold. Sudden entry into cold water usually occurs if a person accidentally falls in or intentionally enters the water without proper protection. A person may be swimming underwater and enters a thermocline, a sharp change in temperature from one layer of water to another. In any case, cold water can have a serious effect on the victim and on the lifeguard making the rescue.

Sudden entry into cold water may cause the following reactions:

- A gasp reflex, a sudden involuntary attempt to “catch one’s breath,” may cause the victim to inhale water into the lungs if the face is underwater.
- If the person’s face is not underwater, he or she may begin to hyperventilate. This can cause unconsciousness and lead to the risk of breathing in water.
- An increased heart rate and blood pressure can cause cardiac arrest.
- A victim who remains in the cold water may develop hypothermia, which can cause unconsciousness.

In some ways, cold water can be beneficial and may increase a person’s chances of survival:

- In cold water, body temperature begins to drop almost as soon as the person enters the water. Swallowing water accelerates this cooling.
- As the core temperature drops, body functions slow almost to a standstill, and the person requires very little oxygen.
- Any oxygen in the blood is diverted to the brain and heart to maintain minimal functioning of these vital organs.

Because of this, some victims have been successfully resuscitated after being submerged in cold water for an extended period.

### Rescues in Cold Water

It is important to locate and remove a victim from cold water as quickly as possible. Because a lifeguard also

will be affected by cold water, he or she should try to make the rescue without entering the water, if possible. A lifeguard can extend a rescue tube to reach the victim, but the victim might not be able to maintain a hold on the equipment due to the cold.

If a lifeguard must enter the water, he or she should take a rescue tube attached to a towline. A line-and-reel, which is a heavy piece of rope or cord attached to rescue equipment, may be used to tow the lifeguard and the victim to safety. The lifeguard should wear body protection, such as a wetsuit, gloves, booties and hood, if possible.

When the victim is out of the water, the lifeguard should assess his or her condition. Victims who have been submerged in cold water may still be alive even with—

- A decreased or undetectable pulse rate.
- No detectable breathing.
- Bluish skin that is cold to the touch.
- Muscle rigidity.

The lifeguard should begin rescue breathing or cardiopulmonary resuscitation (CPR), as needed, and provide first aid for hypothermia as soon as possible. If not done so already, summon EMS personnel immediately. The sooner the victim receives advanced medical care, the better the chances are for survival.

## PUTTING IT ALL TOGETHER

Although rescuing a victim safely is the goal, lifeguards should never jeopardize their own safety when making a rescue. Lifeguards must adapt some skills for moving water and tight spaces of various attractions. At waterfronts, lifeguards should adapt their rescue methods for the specific conditions present. They should always use rescue equipment, such as a rescue tube, to keep themselves and the drowning victim safe. Once the victim has been brought to safety, remove the victim from the water and provide care as needed. Lifeguards should frequently practice rescue skills using equipment specific to the environment in which they will be guarding.