



**American
Red Cross**

Lifeguarding

MANUAL



CONTENTS

CHAPTER 1

The Professional Lifeguard

Introduction	2
Responsibilities of a Professional Lifeguard	2
Characteristics of a Professional Lifeguard	3
Decision Making	6
Legal Considerations	6
Continuing Your Training	8
Being Part of the Team	9
Wrap-Up	10

CHAPTER 3

Surveillance and Recognition

An Overview of the Process of Drowning	34
Effective Surveillance	34
Wrap-Up	49

CHAPTER 5

Emergency Action Plans

Types of Emergency Action Plans	72
Implementing an Emergency Action Plan	76
Emergencies Outside of Your Zone	85
Wrap-Up	86

CHAPTER 7

Before Providing Care and Victim Assessment

Bloodborne Pathogens	132
How Pathogens Spread	133
Preventing the Spread of Bloodborne Pathogens	135
If You Are Exposed	140
General Procedures for Injury or Sudden Illness on Land	140
Wrap-Up	147

CHAPTER 2

Facility Safety

Rescue Equipment	12
Facility Safety Checks	15
Weather Conditions	25
Rules and Regulations	27
Management and Safety	30
Wrap-Up	32

CHAPTER 4

Injury Prevention

How Injuries Happen	53
Injury-Prevention Strategies	53
Effective Guarding—Injury Prevention Challenges	56
Wrap-Up	70

CHAPTER 6

Water Rescue Skills

General Procedures for a Water Emergency	88
Train to the Standard, Meet the Objective	90
Rescue Skills	90
Additional Rescue Skills for Waterfronts	94
Special Situations for Waterfronts	95
When Things Do Not Go as Practiced	100
Wrap-Up	102

CHAPTER 8

Breathing Emergencies

Recognizing and Caring for Breathing Emergencies	160
Giving Ventilations	163
Airway Obstruction	169
Emergency Oxygen	172
Oxygen Delivery Devices	175
Suctioning	180
Wrap-Up	180



CHAPTER 9

Cardiac Emergencies

Cardiac Chain of Survival _____	194
Heart Attack _____	194
Cardiac Arrest _____	196
CPR _____	196
AEDs _____	198
Multiple-Rescuer Response _____	203
Wrap-Up _____	206

CHAPTER 10

First Aid

Responding to Injuries and Illnesses _____	215
Secondary Assessment _____	216
Sudden Illness _____	217
Skin and Soft Tissue Injuries _____	220
Bites and Stings _____	228
Poisoning _____	232
Heat-Related Illnesses and Cold-Related Emergencies _____	233
Injuries to Muscles, Bones and Joints _____	235
Emergency Childbirth _____	237
Wrap-Up _____	238

CHAPTER 11

Caring for Head, Neck and Spinal Injuries

Causes of Head, Neck and Spinal Injuries _____	247
Caring for Head, Neck and Spinal Injuries _____	248
Wrap-Up _____	257

Glossary _____	273
References _____	280
Index _____	285



Surveillance and Recognition

Your primary responsibility as a lifeguard is to help ensure patron safety and protect lives. The main tool used to accomplish this is *patron surveillance*—keeping a close watch over the people in the facility and intervening when necessary. You will spend most of your time on patron surveillance. To do this effectively, you must be alert and attentive—and ready to react—at all times as you continuously supervise patrons. ■



AN OVERVIEW OF THE PROCESS OF DROWNING

Figure 3-1



A conscious drowning victim struggles to breathe and cannot call out for help.

Drowning is a continuum of events that begins when a victim's airway becomes submerged under the surface of the water (Figure 3-1). The process can be stopped, but if it is not, it will end in death. The process of drowning begins when water enters the victim's airway. This causes involuntary breath holding and then *laryngospasm* (a sudden closure of the larynx or windpipe). When this occurs, air cannot reach the lungs. During this time, the victim is unable to breathe but may swallow large quantities of water into the stomach. As oxygen levels are reduced, the laryngospasm begins to subside and the victim may gasp for air but instead inhales water into the lungs.

Due to inadequate oxygen to body tissues, cardiac arrest may occur. This can happen in as little as 3 minutes after submerging. Brain damage or death can occur in as little as 4 to 6 minutes. The sooner the drowning process is stopped by getting the victim's airway out of the water, opening the airway and providing resuscitation (ventilations or CPR), the better the chances are for survival without permanent brain damage.

No two drownings are alike—there are many intervening variables that can affect the outcome, including any underlying medical conditions of the victim and the time until advanced medical care intervenes. However, in general, giving ventilations often will resuscitate the victim if they are given within 1½ to 2 minutes of submerging.

When you are providing care, an unconscious victim may have isolated or infrequent gasping in the absence of other breathing, called agonal gasps. Agonal gasps can occur even after the heart has stopped beating. Normal, effective breathing is regular, quiet and effortless. Agonal gasps are not breathing. Care for the victim as though he or she is not breathing at all by giving ventilations or providing CPR.

Lifeguards must understand that only a few minutes can make the difference between life and death. To give a victim the greatest the chance of survival and a normal outcome, you must recognize when a person needs help or is in danger of drowning and you must act immediately. If there is any question whether a person in the water is beginning to drown or merely playing games, it is essential that you intervene, and if necessary, remove the person from the water immediately and provide care.

EFFECTIVE SURVEILLANCE

With effective surveillance, you can recognize behaviors or situations that might lead to life-threatening emergencies, such as drownings or injuries to the head, neck or spine, and then act quickly to modify the behavior or control the situation. Effective surveillance has several elements:

- Recognition of dangerous behaviors
- Victim recognition

- Effective scanning
- Zone of surveillance responsibility
- Lifeguard stations

Recognition of Dangerous Behaviors

A focus of preventive lifeguarding is to intervene quickly to stop potentially dangerous behaviors that could result in an emergency. This may include redirecting a child to shallower water, stopping a group of teens from having breath-holding contests or stopping swimmers from *hyperventilating* (breathing rapidly and deeply) and swimming underwater for extended periods. Swimmers and nonswimmers, regardless of age, can become victims quickly because of dangerous behaviors or other situations (Figure 3-2, A–E). Examples include:

- A weak swimmer or nonswimmer who is:
 - Bobbing in or near water over his or her head.
 - Crawling hand-over-hand along a pool wall.
 - Beyond arm's reach of a supervising adult, even if wearing a floatation aid.

Figure 3-2 A



A child bobbing in water over her head.

Figure 3-2 B



A small child crawling hand-over-hand toward deep water.

Figure 3-2 C



A toddler left unattended.

Figure 3-2 D



A child wearing an improperly fitting life jacket.

Figure 3-2 E



A victim experiencing a medical emergency.

- Clinging to something or struggling to grab something to stay afloat.
- Wearing a life jacket improperly.
- A person who is:
 - Breath-holding or swimming underwater for an extended period after hyperventilating.
 - Participating in a high-risk/high-impact activity, such as diving.
 - Experiencing a medical emergency, such as a sudden illness.

Victim Recognition

Another element of effective surveillance is being able to recognize when someone is in trouble in the water. It is important to understand the behaviors that a victim shows when in distress or drowning. Someone in trouble may struggle at the surface for just a short time or may quickly disappear beneath the surface without any signs of distress. Others may be submerged already when the process of drowning begins, such as the person who has jumped or slipped into water over his or her head and is struggling to reach the surface.

A swimmer may be in distress or actively struggling to survive. Others may be passive and therefore unable to help themselves, showing little or no movement. Understanding these behaviors enables lifeguards to recognize quickly when

someone needs help. Lifeguards should be able to recognize and respond to a drowning victim within 30 seconds.

Figure 3-3



A distressed swimmer may reach for a rescue device, such as a rescue tube or a rope line.

Figure 3-4



A distressed swimmer may wave for help, float on the back, scull or tread water.

Swimmers in Distress

A swimmer can become distressed for several reasons, such as exhaustion, cramp or sudden illness. Quick recognition is key to preventing the distressed swimmer from becoming a drowning victim. A distressed swimmer makes little or no forward progress and may be unable to reach safety without assistance. Distressed swimmers may be:

- Able to keep their face out of the water.
- Able to call for help.
- Able to wave for help.
- Horizontal, vertical or diagonal, depending on what they use to support themselves.
- Floating, sculling or treading water.

The distressed swimmer generally is able to reach for a rescue device, such as a rescue tube (Figure 3-3). If a safety line or other floating object is nearby, a distressed swimmer may grab and cling to it for support. As conditions continue to affect the distressed swimmer, such as fatigue, cold or sudden illness, he or she becomes less able to support him or herself in the water (Figure 3-4). As this occurs, his or her mouth moves closer

to the surface of the water, and anxiety increases. If a distressed swimmer is not rescued, he or she may become a drowning victim; therefore, you need to immediately initiate a rescue.

Drowning Victim–Active

A drowning victim who is struggling to remain at the surface of the water has distinctive arm and body positions. These are efforts to try to keep the mouth above the water's surface in order to breathe (Figure 3-5). This universal behavior is called the *instinctive drowning response*. Once it is recognized that a victim is drowning, the lifeguard must perform a swift or immediate rescue.

Some victims cycle through these behaviors quickly and might submerge within seconds, whereas others are able to remain near the surface of the water for a short time. A drowning victim who is struggling is:

- Cannot call out for help because his or her efforts are focused on getting a breath.
- Works to keep the face above water in an effort to breathe. A young child may be in a horizontal face-down position during the struggle because he or she is unable to lift the face out of the water.
- Has extended the arms to the side or front, pressing down for support.
- Is positioned vertically in the water with no supporting kick. A young child may tip into a horizontal face-down position.
- Might continue to struggle underwater once submerged.
- Eventually will lose consciousness and stop moving.

Drowning victims who are struggling to breathe may not always look the same. For some, the mouth sinks below the surface and reappears, sometimes repeatedly. While the mouth is below the surface, the drowning victim attempts to keep the mouth closed to avoid swallowing water. When above the surface, the drowning victim quickly exhales and then tries to inhale before the mouth goes below the surface again. While the victim is gasping for air, he or she also might take water into the mouth (Figure 3-6). For a young child who is in a horizontal face-down position, he or she is not able to keep the mouth above the surface of the water at all.

Often, a drowning victim at or near the surface is unable to call out for help. He or she can take in only enough air to breathe, so no air is left to call out. A drowning in progress often is silent.

A drowning victim does not make any forward progress in the water. A young child may appear to be doing a “doggy paddle” but has no forward progress; all efforts

Figure 3-5



A drowning victim may become unable to support themselves and struggle at the surface of the water.

Figure 3-6



A drowning victim may struggle to breathe and cannot call out for help.

are devoted to getting air. The victim might be able to stay at the surface for only 20 to 60 seconds, if at all. He or she may continue to struggle underwater but eventually will lose consciousness and stop moving.

A victim may slip into water over his or her head, incur an injury, or experience a sudden illness and struggle underwater to reach the surface. If unable to swim or make progress, he or she will be unable to reach the surface. This drowning victim may appear to be a person who is playing or floating underwater. It may be easier to recognize a swimmer in distress or a victim struggling on the surface than to recognize a victim who has submerged already or is submerging.

Never assume that anyone exhibiting these behaviors is playing or faking; it is essential that you intervene, and if necessary, remove the person from the water immediately and provide care.

Drowning Victim—Passive

Some drowning victims do not struggle. They suddenly slip under water due to a medical condition or another cause, such as:

Figure 3-7



A drowning victim may float face-down at or near the surface of the water.

- A heart attack or stroke.
- A seizure.
- A head injury.
- A heat-related illness.
- Hypothermia (below-normal body temperature).
- Hyperventilation and prolonged underwater breath-holding activities.
- Use of alcohol and other drugs.

These drowning victims:

- Might float face-down at or near the surface or might sink to the bottom (Figure 3-7).
- May be limp or have slight convulsive-type movements.
- Have no defined arm or leg action, no locomotion and no breathing.
- May appear to be floating, if at the surface of the water.
- May be face-down, on one side or face-up, if at the bottom (Figure 3-8).

Figure 3-8



A drowning victim may be face-down at the bottom of a pool.

Anyone who is exhibiting one or more of these signals for 30 seconds should be considered a drowning victim and responded to immediately. It can be difficult to clearly see a victim who is underwater or at the bottom of a pool because of glare, reflections, or water movement from the wind or other swimmers. The victim may appear to look like a smudge, an object like a towel,

or a shadow. Do not expect to see a clear outline of a person on the bottom. At waterfronts, submerged victims may not be visible, depending on the water depth



DANGEROUS BEHAVIORS

Hyperventilation and Extended Breath-Holding

Voluntary hyperventilation (rapid, deep breathing) is a dangerous technique used by some swimmers to try to swim long distances underwater or to hold their breath for an extended period while submerged in one place. They mistakenly think that by taking a series of deep breaths in rapid succession and forcefully exhaling that they can increase the amount of oxygen they breathe, allowing them to hold their breath longer underwater. This is not true. Hyperventilation does not increase the amount of oxygen or allow a swimmer to hold his or her breath longer; instead, it lowers the carbon dioxide level in the body. The practice is risky because the level of carbon dioxide in the blood is what signals a person to breathe. As the level of carbon dioxide increases, a person normally takes a breath. When a person hyperventilates and then swims underwater, the oxygen level in the blood can drop to a point where the swimmer passes out before the body knows it is time to breathe. Then, when the person finally does take a breath instinctively, water rushes in and the drowning process begins.

Do not allow swimmers to participate in contests, games or repetitive activities to see who can swim underwater the farthest or hold their breath underwater the longest. Hyperventilation, prolonged underwater swimming for distance and breath-holding

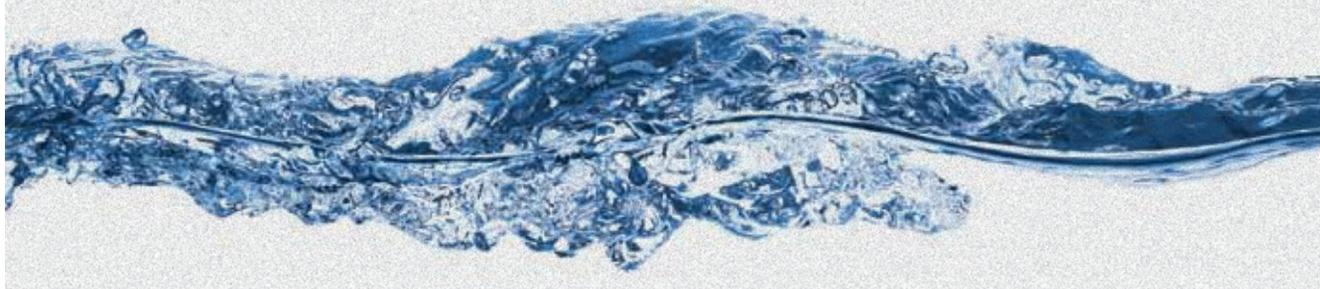
for time are extremely dangerous. If you see these dangerous activities, you must intervene. Explain to patrons that they should only take a single inhalation before submerging when swimming and playing underwater. In addition, instructors must prevent these activities during instructional periods, such as swim lessons, lifeguard classes, SCUBA classes and competitive swimming.

Alcohol

The following are some ways that alcohol can affect a person in the water and lead to drowning or head, neck or spine injuries:

- Alcohol affects balance. Some people with alcohol in their body have drowned in shallow water when they lost their balance and were unable to stand up. “Ordinary” actions on steps, ladders, diving boards or play structures become hazardous for an intoxicated person.
- Alcohol affects judgment. A person might take unusual, uncharacteristic risks, such as diving into shallow water.
- Alcohol slows body movements. It can greatly reduce swimming skills, even those of an excellent swimmer.
- Alcohol impairs one's ability to stay awake and respond appropriately to emergencies.

One of the biggest myths about alcohol is that an intoxicated person can sober up by going swimming. Splashing water on a person's face or immersing a person in water will not reduce the amount of alcohol in the bloodstream or reduce the effects of alcohol.



or because of poor water clarity. If you see something on the bottom that should not be there, do not delay, go right away.

Specific Behaviors

When conducting surveillance, look for behavior that indicates a patron in need of immediate assistance. It is important to recognize the behaviors of

Table 3-1: **Behaviors of Distressed Swimmers and Drowning Victims**

	Distressed Swimmer	Drowning Victim-Active	Drowning Victim-Passive
Head Position	Above water	Tilted back with face looking up	<ul style="list-style-type: none"> ■ Face-up or face-down in the water ■ Submerged
Appearance and, if visible, Facial Expressions	<ul style="list-style-type: none"> ■ Trying to support self by holding or clinging to a lane line or safety line ■ Expression of concern for personal safety 	<ul style="list-style-type: none"> ■ Struggling to keep or get the head above the surface of the water ■ Struggling to reach the surface, if underwater ■ Expression of panic/wide eyed 	<ul style="list-style-type: none"> ■ Limp or convulsive-like movements ■ Floating or submerged ■ Eyes may be closed ■ If submerged, may look like a shadow
Breathing	Is breathing	Struggles to breathe	Not breathing
Arm and Leg Action	<ul style="list-style-type: none"> ■ Floating, sculling or treading water ■ Might wave for help 	Arms to sides or in front, alternately moving up and pressing down	None
Body Position	Horizontal, vertical or diagonal, depending on means of support	Vertical, leaning slightly back	Horizontal or vertical
Locomotion	<ul style="list-style-type: none"> ■ Little or no forward progress ■ Less and less able to support self 	None	None
Sounds	Able to call for help but may not do so	Cannot call out for help	None
Location	At the surface	At the surface, underwater or sinking	Floating at the surface, sinking or submerged on the bottom

a drowning victim (Table 3-1). Notice:

- Breathing.
- Appearance or facial expression (if the face is visible to you).
- Arm and leg action.
- Head and body position.
- Body propulsion or locomotion (movement) through the water.

Understanding these behaviors helps you to quickly recognize when someone needs help. When you see some or all of these behaviors, react. Do not spend time second-guessing yourself, immediately initiate a rescue. Quick action can mean the difference between life and death for a distressed or drowning victim.

Effective Scanning

Knowing *what* to look for to determine if a victim is in trouble in the water is a first step, but you also need to know *how* to look. *Scanning* is a visual technique for watching patrons in the water (Figure 3-9). When scanning, you should not just passively watch patrons in the water. Effective scanning requires you to deliberately and actively observe swimmers' behaviors and look for signals that someone in the water needs help. You must actively scan all patrons in the water, regardless of the type of activities taking place.

Figure 3-9



Scanning is a surveillance technique for watching patrons.

Guidelines for Effective Scanning

Drowning and injuries can happen in an instant, often silently. Scanning your entire area of responsibility quickly and thoroughly is important. You cannot prevent or save what you cannot see. When scanning:

- Scan all patrons in your assigned area of responsibility.
- Stay focused—do not let your attention drift.
- Scan the entire volume of water—the bottom, middle and surface.
- Move your head and eyes while scanning and look directly at each area rather than staring in a fixed direction. You may notice movement with your peripheral (side) vision, but to recognize that a person is in trouble, you must look directly at him or her.
- Scan from point to point thoroughly and repeatedly. Do not neglect any part of the assigned area, including any deck or beach areas and those areas under, around and directly in front of the lifeguard station.
- Focus on effective patron surveillance instead of the scanning pattern itself.
- Scan for signs of potential problems: arm and leg action, body position and movement through the water may indicate that a patron is a weak swimmer and is in trouble in the water.
- Scan crowded and high-risk areas carefully. Partially hidden arm movements might indicate that a victim is actively drowning.
- Pay close attention to nonswimmers or weak swimmers. Excitement or lack of knowledge may lead nonswimmers or weak swimmers to become unknowingly

careless. They might try things they would not otherwise do, or they might accidentally enter deep water.

- Maintain an active posture. Slouching, leaning back, sitting back with legs crossed, or resting your head in your hand may cause you to become too relaxed and lose focus.
- Adjust your body position or stand up to eliminate blind spots. Be aware of areas that are difficult to see. Areas might be blocked when patrons cluster together; or water movement, such as from fountains or bubbles, may distort the view underwater.
- Change your body position regularly to help stay alert. For example, switch between seated and standing positions while in an elevated station.
- While scanning, do not be distracted by people or activities outside of your area of responsibility. Keep focused on the assigned zone.
- Do not interrupt scanning an area if a patron asks a question or has a suggestion or concern. Acknowledge the patron and quickly explain that you cannot look at him or her while talking, but you are listening to the patron. Politely but briefly answer the patron's question, suggestion or concern, or refer him or her to the head lifeguard, facility manager or another staff member.

Scanning Challenges

There are many challenges to scanning (Figure 3-10, A–D). You must be aware of the challenges and actively employ tactics to combat them. The lives of patrons

Figure 3-10 A



Figure 3-10 B



Figure 3-10 C



Figure 3-10 D



Scanning challenges include: (A) glare on the water, (B) water movement obscuring the bottom of the pool, (C) cloudy water and (D) fatigue

Table 3-2: **Scanning Challenges**

Challenge	Tactics
Monotony	<ul style="list-style-type: none"> ■ Stay fully engaged in what you are seeing—do not let your attention drift. ■ Change body position and posture periodically. ■ Sit upright and slightly forward. ■ Rotate stations.
Fatigue	<ul style="list-style-type: none"> ■ Request additional lifeguard coverage. ■ Keep hydrated, cool off and get out of the sun when on break. ■ Exercise during one of your breaks.
Distractions	<ul style="list-style-type: none"> ■ Stay focused on patron surveillance. ■ Do not daydream, have conversations with co-workers or patrons or watch events outside of your area. ■ Keep patron activities safe and orderly. Signal for an additional lifeguard or supervisor if assistance is needed.
Blind spots	<ul style="list-style-type: none"> ■ Adjust your location or body position or stand up. ■ Check all potential blind spots: under the stand, at play features or any part of the zone.
Glare (from the sun or overhead lights)	<ul style="list-style-type: none"> ■ Use polarized sunglasses. ■ Change body position—stand up and look around and through glare spots. ■ Reposition your lifeguard station with permission of your supervisor.
Water movement and surface distortion of the water	<ul style="list-style-type: none"> ■ Adjust your body position. ■ Be aware of the normal appearance of the bottom of the pool; know the appearance of drains, colored tiles or painted depth markings. ■ Scan the bottom carefully.
Murky water	<ul style="list-style-type: none"> ■ Adjust your location or body position. ■ Stay alert for high-risk activities. ■ Signal for additional assistance to get extra coverage for the area.
Heavy patron loads	<ul style="list-style-type: none"> ■ Stand up frequently. ■ Signal for additional assistance to get extra coverage for your area.
Low patron loads	<ul style="list-style-type: none"> ■ Change body position and posture frequently. ■ Change to a ground-level station, if appropriate.
High air temperature	<ul style="list-style-type: none"> ■ Use fans to cool the surrounding air in an indoor setting. ■ Stay in the shade; use umbrellas. ■ Cool off by getting wet during your break. ■ Rotate more frequently. ■ Stay in cooler areas during breaks. ■ Stay hydrated by drinking plenty of water.

depend on it. Table 3-2 presents some scanning challenges that you may encounter and tactics to overcome them.

Zones of Surveillance Responsibility

Your lifeguard supervisor or facility manager will establish each lifeguard's *zone of surveillance responsibility*—referred to as *zones*. These are the specific areas

THE RID FACTOR

If an active victim drowns while lifeguards are on duty, it is probably due to one or more of the following causes:

- Lifeguards fail to recognize the victim's instinctive drowning response.
- Secondary duties intrude on lifeguards' primary responsibility of patron surveillance.
- Lifeguards are distracted from surveillance.

This set of causes often is referred to as the "RID factor," where the acronym, RID, stands for recognition, intrusion and distraction.

Recognition

Knowing how to recognize that a swimmer is in distress or a person is drowning is one of the most important lifeguarding skills. You must be able to distinguish such behavior from that of others who are swimming or playing safely in the water. You must recognize when someone needs to be rescued. You cannot expect the victim or others to call for help in an emergency.

With good surveillance and scanning techniques, you can recognize even a passive victim who has slipped underwater without a struggle, if the victim is in clear water.

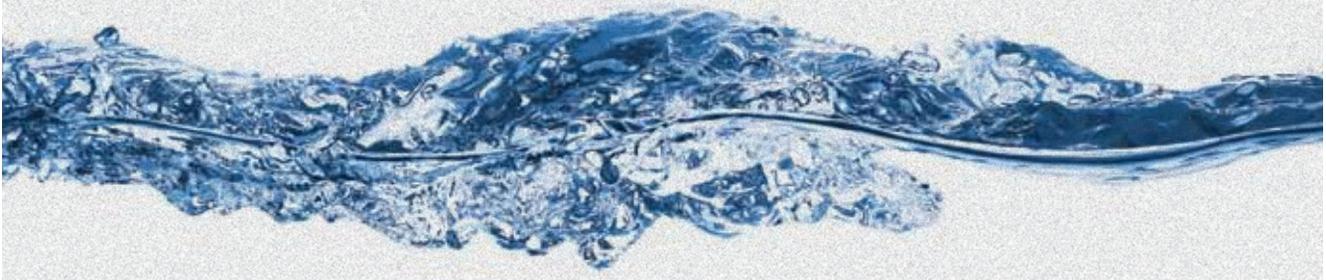
Intrusion

Intrusion occurs when secondary duties, such as maintenance tasks, intrude on your primary responsibility of patron surveillance. Lifeguards often have to sweep the deck, empty trash cans, pick up towels, check locker rooms and perform other maintenance duties. While these duties might be part of the job, you should not perform them while conducting patron surveillance. Before you begin these duties, you must be sure that another lifeguard has taken over surveillance for your assigned area of responsibility.

Similarly, you cannot perform adequate surveillance duties while also coaching a swim team or teaching a swimming lesson. These additional responsibilities should be performed by a different lifeguard, coach or instructor, even if there are no other patrons in the water.

Distraction

Distractions also affect patron surveillance: for example, a lifeguard talking with other lifeguards or friends. A brief conversation might seem innocent, but during that time, you could miss the 20- to 60-second struggle of a young child at the water's surface. The child could die because you were distracted. You should not engage in social conversation while are on duty.



of the water, deck, pier or shoreline that are your responsibility to scan from your lifeguard station (Figure 3-11).

When establishing coverage, supervisors or managers must ensure that:

- All areas of the water—from the bottom through to the surface—are covered and can be seen by a lifeguard.
- There is overlapping coverage when more than one lifeguard is performing surveillance.
- Lifeguards have unobstructed views of their zones from each station.
- The size and shape of each zone allow lifeguards to respond quickly, within 30 seconds, to victims in the water.

Supervisors or managers should post diagrams or charts showing the size, shape and boundaries of each zone. These can change throughout the day, depending on the following:

- Number of patrons
- Types of activities
- Variety of activities
- Time of day
- Environmental conditions, such as glare from the sun

To ensure that all areas of the pool are covered adequately, you might be assigned *zone coverage*, *total coverage* or *emergency back-up coverage*.

Zone Coverage

In zone coverage, the swimming area is divided into separate zones, with one zone for each lifeguard station (Figure 3-12, A–B). Zones can be designated by markers, such as ladders, lane lines, lifelines, buoys, or the shape of the pool. Zone coverage is effective for high-risk areas or activities, avoiding blind spots and reducing the number of patrons watched by each lifeguard. When zone coverage is being provided, each lifeguard needs to know the zone for each guarding position.

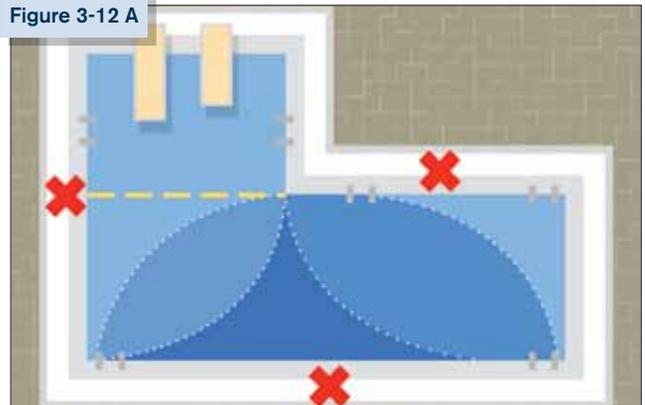
At a minimum, zones should overlap by several feet so that the boundaries between them have double coverage. This prevents any area from not being scanned. When zones overlap, it is important that each lifeguard react to an emergency; that is, you should not assume that the other lifeguard will notice a problem and react. However, if the

Figure 3-11



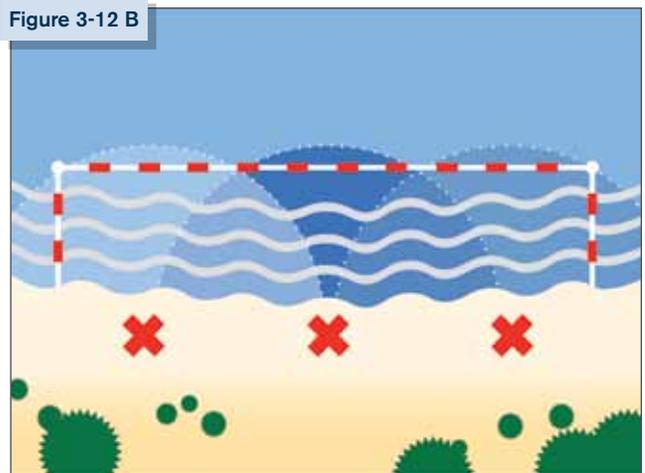
The zone of surveillance responsibility refers to the specific area a lifeguard is responsible for scanning.

Figure 3-12 A



Zone coverage at a pool

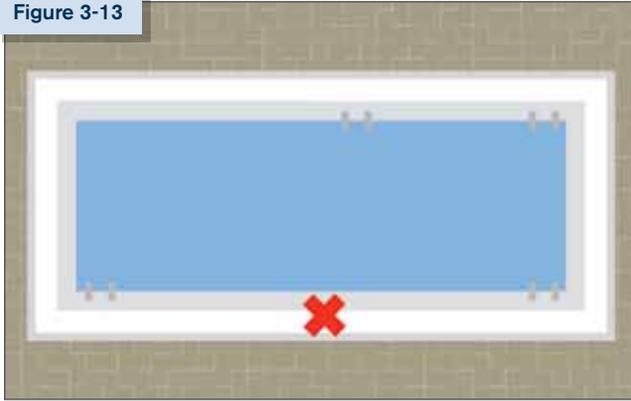
Figure 3-12 B



Zone coverage at a waterfront

position of the other lifeguard allows a significantly quicker rescue, your emergency action plan (EAP) should establish how lifeguards communicate as to who enters the water and who provides back-up coverage.

Figure 3-13

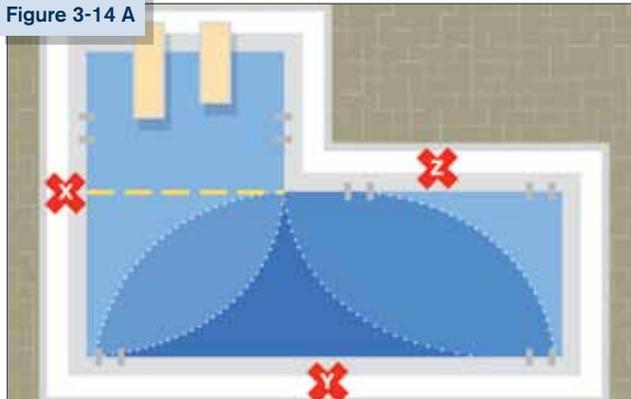


Total coverage at a pool

Total Coverage

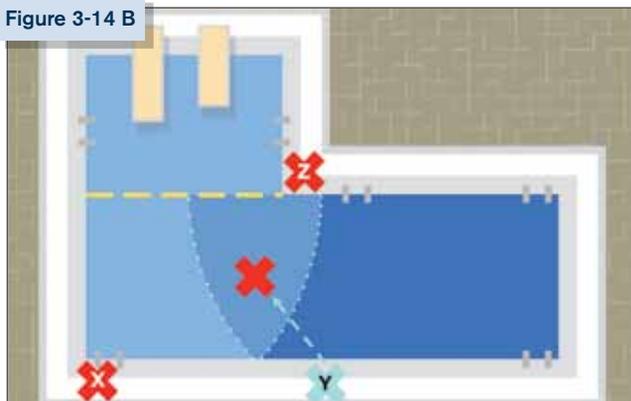
When you are assigned total coverage, you will be the only lifeguard conducting patron surveillance while you are on duty. Some facilities, such as a small pool, always assign their lifeguards total coverage. Other facilities use total coverage for specific situations, such as when there are a limited number of patrons present. When only one lifeguard is conducting patron surveillance, that lifeguard has to scan the entire area, control the activities of patrons in and out of the water and recognize and respond to emergencies (Figure 3-13). If adequate coverage cannot be provided for all patrons, inform a supervisor that help is needed.

Figure 3-14 A



Zone coverage with three lifeguards

Figure 3-14 B



Back-up coverage during a rescue at a three-zone facility

Emergency Back-Up Coverage

In emergency situations when two or more lifeguards are on duty and one lifeguard must enter the water for a rescue, lifeguards who remain out of the water must now supervise a larger area. They might need to move to better vantage points or close part of the swimming area, depending on the facility's design.

Figure 3-14, A illustrates zone coverage when three lifeguards are on surveillance duty. **Figure 3-14, B** shows an example of emergency back-up coverage for the same three-zone facility. **Figure 3-14, B** depicts lifeguard Y as the primary rescuer. He or she signals and enters the water (indicated by a dotted line). The other two lifeguards (lifeguards X and Z) stand in each of the lifeguard chairs and divide the responsibility for scanning the pool. Meanwhile, additional lifeguards or safety team members monitor the rescue and prepare to assist with additional equipment and call emergency medical services (EMS) personnel, if appropriate.

Lifeguard Stations

Lifeguards perform patron surveillance from a variety of positions including elevated, ground-level, roving and floating stations. Additional coverage at waterfront areas sometimes is provided by foot patrols, boat patrols

and four-wheel-drive vehicles. The goal is to provide optimum coverage for the whole facility by placing lifeguards in positions to quickly recognize and respond to emergencies. To ensure that lifeguards stay alert, periodic rotations and breaks from surveillance are built into their surveillance schedules.

The location of any lifeguard station must allow you to see your entire zone. The lifeguard stand may need to be moved or the position adjusted during the day to adapt to the changing sun, glare, wind or water conditions. It is critical for you to have a clear view of your entire zone.

Elevated Stations

Elevated lifeguard stations generally provide the most effective position for a broad view of the zone and patron activities (Figure 3-15). This is especially important at a facility where a single lifeguard at a time performs patron surveillance. When you are scanning from an elevated station, be sure to include the area under, around and directly in front of the stand. Movable stands should be positioned close to the edge of the water with enough room to climb up and down from the stand.

The area surrounding an elevated stand must be kept clear of patrons or objects that might interfere with your ability to respond. You must know how to safely exit the stand, both in the course of a normal rotation as well as in an emergency. Be sure to practice with the rescue tube so that you are able to do so quickly and without getting injured. A safety zone should be established that allows access to the water in case of an emergency. At a waterfront, the safety zone should be thoroughly inspected with rakes and shovels before opening each day. This helps to prevent injuries to lifeguards during emergency exits from the lifeguard stand.

Figure 3-15



An elevated lifeguard station

Ground-Level Stations

Lifeguards sometimes are assigned to a fixed location on a deck or in shallow water (Figure 3-16). These stations allow for quick response and are common around winding rivers, in shallow-water areas with play structures, and at the end of slides. The primary purpose of ground-level stations is to be close to patrons so you can easily make assists and enforce safety rules for patrons in the water and on the deck. While maintaining surveillance, you also can educate patrons about the reasons behind the rules; however, you should never become distracted from surveillance duties by talking socially with patrons or other staff.

Figure 3-16



A ground-level lifeguard station

Roving Stations

When a facility becomes unusually crowded, such as during a special event or activity, supervisors or managers might assign a lifeguard to a *roving station*. The

roving lifeguard is assigned a specific zone, which also is covered by another lifeguard in an elevated station. These roving, or walking, lifeguards are mobile and able to position themselves where needed within the zone. Combining the views from elevated stations with the mobility of the roving lifeguard provides extra coverage to help ensure effective patron surveillance.

Floating Stations (Rescue Watercraft)

In many waterfront facilities, lifeguards are stationed to watch swimmers from a water craft, usually as extra coverage. Rescue watercraft typically are used to

patrol the outer edge of a swimming area. Often, someone in trouble in the water can be reached more quickly from watercraft than from a lifeguard station on the shore.

In a small, calm area, a rescue board, kayak or flat-bottom rowboat might be used (Figure 3-17). When patrolling on a rescue board, sit or kneel on the board for better visibility (Figure 3-18). Some protocols may require you to keep the rescue tube or buoy strapped across your chest or attached to the board. In rough water, rowboats might be used. Powerboats, inflatable boats and personal watercraft also can be used as rescue watercraft. Facility management normally provides on-the-job training in the use of watercraft at a facility.

If stationed on watercraft in water with a current, you might have to row or paddle to stay in position. Some watercraft have a special anchor line with a quick release for lifeguards to make a rescue. In some larger watercraft, one lifeguard maintains the craft's position while a second watches the swimming area.

Make sure that you are well trained in operating the facility's watercraft before using it for surveillance or to make a rescue. Use caution with motorized watercraft to avoid injuring swimmers or damaging lifelines when crossing into the swimming area to make a rescue.

Figure 3-17



Rescue water craft, such as kayaks, may be used at waterfront areas.

Figure 3-18



A rescue board may be used to help with patron surveillance at waterfront areas.

Lifeguard Rotations

All facilities should have a defined rotation procedure. Rotations include moving from one station to another as well as breaks from surveillance duty. Lifeguards should get regular breaks from surveillance duty to help stay alert and decrease fatigue. Typically, you might perform patron surveillance for 20 or 30 minutes at one station, rotate to another station for 20 or 30 minutes, and then rotate off of patron surveillance duty to perform other duties or take a break for 20 or 30 minutes, thereby getting a break from constant surveillance. Rest and meal breaks should be factored into the rotation.

An emergency back-up coverage "station" often is included as a part of the rotation. The location may be a staff room or on the pool deck, pier or shoreline within sight

of the swimming area(s). The lifeguard at this station is not responsible for patron surveillance but is expected to be able to immediately respond to the EAP signal in an emergency. (Chapter 5 covers information about emergency action plans.)

Your supervisor will establish a plan for lifeguard rotations, usually based on:

- Locations of stations.
- Type of station (elevated, ground-level, roving or floating).
- The need to be in the water at some stations.
- The number of patrons using an attraction.
- The activity at the station, such as wave durations at a wave pool.
- EAPs.

The rotation begins with the incoming lifeguard. While rotating, each lifeguard should carry his or her own rescue tube, and both lifeguards must ensure there is no lapse in patron surveillance, even for a brief moment. Each lifeguard must know who is responsible for scanning the zone—“owning the zone”—and at what time during the rotation. You will be transferring scanning responsibilities back and forth as the incoming lifeguard gets into position and the outgoing guard prepares to leave the station. Keep any necessary conversations brief and make sure that eye contact remains on the water.

As the incoming lifeguard, you should be aware of the patrons and activity level of the zone you will be watching. Begin scanning your zone as you are walking toward your station, checking all areas of the water from the bottom to the surface.

The outgoing lifeguard should inform you of any situations that need special attention. The exchange of information should be brief, and patron surveillance must be maintained throughout the entire rotation. Once in position, with the rescue tube strapped in place, make any adjustments needed, such as removing shoes or adjusting an umbrella before confirming to the outgoing lifeguard that you own the zone. The outgoing lifeguard should continue scanning as he or she is walking toward the next station. The skill sheet at the end of this chapter outlines the steps for rotations for ground-level and elevated stations.

WRAP-UP

A lapse in coverage—even for just a few seconds—could result in injury or death. A lifeguard must be alert for dangerous behaviors and able to recognize a distressed swimmer and a drowning victim who is active or passive. Effective scanning techniques and lifeguard stations are needed both to prevent incidents and locate people in trouble.



ROTATIONS—Ground-Level Station

At a ground-level station, you (the incoming lifeguard) should:

- 1** Begin scanning your zone as you are walking toward your station. Note the swimmers, activities and the people on the deck. In a pool or waterpark setting where the water is clear, check the entire volume of water from the bottom of the pool to the surface of the water.



- 2** Walk to the side of the lifeguard being relieved and begin scanning the zone.



- 3** Exchange information. Ask the lifeguard being relieved whether any patrons in the zone need closer than normal supervision.



- 4** Once scanning has started, signal or tell the outgoing lifeguard that you have the zone covered and he or she can rotate.



- 5** The outgoing lifeguard continues scanning as he or she is walking toward the next station.



ROTATIONS—Elevated Station

At an elevated station, you (the incoming lifeguard) should:

1 Begin scanning your zone as you are walking toward your station. Note the swimmers, activities and the people on the deck. In a pool or waterpark setting where the water is clear, check the entire volume of water from the bottom of the pool to the surface of the water.

2 Take a position next to the stand and begin scanning the zone. After a few moments of scanning, signal the lifeguard in the stand to climb down.



3 Once on the deck, the outgoing lifeguard takes a position next to the stand and is responsible for surveillance of the zone. Climb up in the stand, make any adjustments to equipment or personal items and begin scanning.



4 Exchange information. Ask the lifeguard being relieved whether any patrons in the zone need closer than normal supervision.

5 Signal or tell the outgoing lifeguard that you have the zone covered and he or she can rotate.



6 The outgoing lifeguard continues scanning as he or she is walking toward the next station.