

- Bring this **Study Guide** to class or have it accessible on your phone.
- Read each chapter in the **Training Manual** and then review key points in this study guide.
- Watch the Online Video Lessons before class day.

# **Chapter 1 — The Professional Lifeguard**

- 1. Name 3 primary responsibilities of a lifeguard:
- Monitoring activities in and near the water through patron surveillance.
- Preventing injuries by minimizing or eliminating hazardous situations or behaviors.
- Enforcing facility rules and regulations and educating patrons about them.
- Recognizing and responding quickly and effectively to all emergencies.
- Administering first aid and CPR, including using an automated external defibrillator (AED) and, if trained, administering emergency oxygen when needed.
- Working as a team with other lifeguards, facility staff and management.
- 2. Name 3 secondary responsibilities of a lifeguard:
- Testing the pool water chemistry.
- Assisting patrons (conducting safety orientations, administering swim tests and fitting life jackets).
- Cleaning or performing maintenance.
- Completing records and reports.
- Performing opening duties, closing duties or facility safety checks and inspections.
- 3. Name 3 characteristics of a professional lifeguard:

Knowledgeable and skilled, Reliable, Mature, Courteous and consistent, Positive, Professional, Healthy and fit, Rest

- 4. As part of the FIND decision-making process, define what each letter stands for:
  - F = Figure out the problem.
  - I = Identify possible solutions.
  - N = Name the pros and cons for each solution.
  - D = Decide which solution is best, then act on it.



5. Briefly define each term below:



- **Duty to act.** While on the job, you have a legal responsibility to act in an emergency. Failure to adhere to this duty could result in legal action.
- **Standard of care.** You are expected to meet a minimum standard of care, which may be established in part by your training program and in part by state or local authorities. This standard requires you to:
  - Communicate proper information and warnings to help prevent injuries. Recognize someone in need of care.
  - Attempt to rescue those needing assistance.
  - Provide emergency care according to your level of training.
- Negligence. When a person is injured or suffers additional harm because lifeguards failed to follow the standard of care or failed to act at all, the lifeguards may be considered negligent. Negligence includes:

• Failing to control or stop any behaviors that could result in further harmor injury; failing to provide care;

inappropriate care; providing care beyond the scope of practice or level of training.

- Abandonment. Once care is initiated, it must be continued until emergency medical services (EMS) personnel or someone with equal or greater training arrives and takes over. You can be held legally responsible for abandoning a person who requires ongoing care if you leave the scene or stop providing care.
- Confidentiality. While making a rescue or providing care, you may learn something about the injured or ill person, such as information about medical conditions, physical problems and medications taken. This person's right to privacy is protected by laws that require you to keep information learned about the person confidential. Reporters, insurance investigators or attorneys may ask questions following an incident. This information should not be shared with anyone except EMS personnel directly associated with the person's care, facility management or the facility's legal counsel. Sharing personal information with individuals not directly associated with an injured person's medical care may constitute a breach of the victim's privacy.
- Documentation. Properly documenting injuries and incidents is very important. If legal action occurs later, your records and reports can provide legal documentation of what was seen, heard and done at the scene. As time passes, critical details may be forgotten. When completing a report, state the facts of the incident without including your opinion. Once the report is complete, sign and date it and have all responders read the report, then sign and date it as well. A copy of the report should be kept by the facility.
- **Consent**. An injured or ill person must give permission before responders can provide first aid and emergency care. To obtain consent:
  - State your name.
  - State your level of training.
  - Ask if you may help.
  - Explain that you would like to assess him or her to
- Refusal of care. Some injured or ill people may refuse care, even if they desperately need it. Parents also may refuse care for children. Even though someone may be seriously injured, his or her wishes must be honored. In these situations, you should explain why he or she needs care. For significant injuries, you should call EMS personnel to evaluate the situation. For non-life-threatening emergencies, when care is refused and you
- Good Samaritan Law protects first responders from liability and legal issues.
- 6. Describe what an Emergency Action Plan (EAP) is.

The lifeguard team and other staff members must practice the facility's EAPs together until everyone knows their responsibilities and can perform them effectively.

Because conditions can change throughout the day, you may need to adapt the EAP to a particular situation. Some facilities have created more than one EAP to cover specific situations or conditions. Factors that may affect the steps of an EAP include the number of lifeguards on duty. the number and availability of other safety team members on duty and the types of patron activities occurring.



7. Name the type of rescue equipment shown below:



## 8. Define what Recreational Water Illnesses (RWIs) are and the required treatment plan. pg. 39

Illnesses that are spread by swallowing, breathing or contacting contaminated water are called recreational water illnesses (RWIs). Typical RWIs include earaches, rashes and diarrhea. RWIs generally are not severe, but in rare cases they can result in serious outcomes, including pneumonia, neurological damage and even death. *Gastroenteritis* - diarrhea, nausea; *Cryptosporidium* - parasite that causes outbreaks.

- 9. Describe the procedure for dealing with **Lightning** and **Thunderstorms** in the pool. pg. 40
- Clear everyone from the water at the first sound of thunder or first sight of lightning. If you are in an elevated station, get down immediately. Move everyone to a safe area free from contact with water, plumbing or electrical circuits. For outdoor facilities, move everyone inside, if possible. Large buildings are safer than smaller or open structures, such as picnic shelters or gazebos.
- Keep patrons and staff out of showers and locker rooms during a thunderstorm as water and metal can conduct electricity.
- Do not use a telephone connected to a landline except in an emergency.
- Keep everyone away from windows and metal objects (e.g., doorframes, lockers).
- Watch for more storms and monitor weather reports on a radio or TV broadcast, weather radio or website.

## 10. Explain what the Safety Data Sheet (SDS) is and the purpose for using it. pg. 47

Each SDS includes procedures for handling each substance and provides information about the dangers of exposure as well as first aid and medical follow-up if exposure occurs.

## 11. List five common rules and regulations often posted at an aquatic facility. pgs. 43-45

- Swim only when a lifeguard is on duty.
- Swim diapers are required for small children or people with incontinence.
- No swimming with open or infected wounds.
- Obey lifeguard instructions at all times.
- No running, pushing or rough play.
- No hyperventilating before swimming underwater or breath-holding contests.
- No sitting or playing near or with drains or suction fittings.
- Dive only in designated areas.
- No glass containers in the pool area and locker rooms.
- No alcoholic beverages or drug use allowed.



# 11. Define what **drowning** is and the drowning process.

Drowning is a continuum of events that begins when a victim's airway becomes submerged under the surface of the water. 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.

# 12. Define what a **laryngospasm** is.

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.

# 13. Describe the 5 elements of **effective surveillance** in the pool.

Recognition of dangerous behaviors; Victim recognition; Effective scanning; Zone of surveillance responsibility; Lifeguard stations

14. Describe the differences between the 3 types of swimmers below and possible causes:

# a. Distressed Swimmer.

A swimmer can become distressed for several reasons, such as exhaustion, cramp or sudden illness. A distressed swimmer makes little or no forward progress and may be unable to reach safety without assistance.

# b. 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. This universal behavior is called the *instinctive drowning response*.

## c. Drowning Victim—Passive.

Some drowning victims do not struggle. They suddenly slip under water due to a medical condition or another cause, due to heart attack/stroke, seizure, head injury, hypothermia, alcohol or drug use, etc.

## 15. Name 5 guidelines for **effective scanning** in the pool:

- 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

16. Name 3 challenges with scanning:

- pg. 67-68
- a. Monotony
   b. Fatigue
   c. Distractions
   Blind spots Glare (from the sun or overhead lights)
   Water movement and surface distortion of the water Murky water
   Heavy patron loads
   Low patron loads
   High air temperature
- 17. Define the RID Factor and briefly explain what it means. pg. 69
  - a. R= Recognition
    b. I= Intrusion
    c. D= Distraction
    lf 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.

**Recogntion**: Knowing how to recognize that a swimmer is in distress or a person is drowning is one of the most important lifeguarding skills.

**Intrusion** occurs when secondary duties, such as maintenance tasks, intrude on your primary responsibility of patron surveillance.

**Distractions** also affect patron surveillance: for example, a lifeguard talking with other lifeguards or friends.

#### 18. Define **zone coverage**. **pg. 70-74**

In **zone coverage**, the swimming area is divided into <u>separate zones</u>, with one zone for each lifeguard station

## 19. Define **total coverage**.

When you are assigned **total coverage**, you will be the <u>only lifeguard</u> conducting patron surveillance while you are on duty.

#### 20. Define 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.

## 21. Name 2 types of lifeguard stations. pg. 75

**Elevated Stations:** Elevated lifeguard stations generally provide the most effective position for a broad view of the zone and patron activities

Ground-Level Stations: Lifeguards sometimes are assigned to a fixed location on a deck or in shallow water

22. Lifeguards should be able to recognize and respond to a drowning victim within 30 seconds.

The size of a zone should allow for a lifeguard to recognize an emergency, reach the victim,

extricate and provide ventilations within  $1\frac{1}{2}$  to 2 minutes. In general, if you can provide ventilations within  $1\frac{1}{2}$  to 2 minutes, you might be able to resuscitate the victim. Although not all emergencies can be prevented, knowing what causes life-threatening injuries can help you to prevent many of them.

- 22. Name 2 life-threatening emergencies.
  - Examples of life-threatening injuries include drowning and injuries to the head, neck or spine. Lifethreatening conditions that can result from an injury include unconsciousness, breathing and cardiac emergencies, severe bleeding and drowning.
  - b.
- 23. Name 2 non-life-threatening emergencies:
  - a. Examples of non-life-threatening injuries include fractures or dislocations, abrasions (scrapes), superficial burns (sunburns), muscle cramps (caused by overexertion), heat exhaustion, dehydration and sprains and strains.

Patrons may be unfamiliar with a facility's features or get so excited that they do not read signs or pay attention to the rules. If patrons are not following the rules, it is your job to inform them of the possible consequences. Explaining rules in a positive way encourages patrons to behave safely.

24. Describe a dangerous scenario and how you would approach and prevent a patron from engaging in that risky behavior.

Child runs on the pool deck:

Get child's attention; tell him to stop; explain the dangers of running (risk of injury to head, neck, back, extremities).

25. Familiarize yourself and review the following emergency water rescue procedures:

- Drowning victim—active. May be yelling for help; difficulty swimming; head goes under water.
- Drowning victim—passive. Victim is not moving.



- Spinal injury victim—passive on surface. Perform head-splint technique.
- Spinal injury victim—passive submerged. Go underwater to retrieve victim; perform head-splint technique and turn as approaching surface then continue to move in the water.

## 26. Describe a missing person procedure. pgs. 123-124

During all missing-person search procedures, one person should be in charge to avoid confusion and wasting time. This may be the lifeguard supervisor or facility manager.

Lifeguards will begin the search, but if the missing person is not found immediately, they may ask other facility staff for help and call EMS personnel for back-up. You and other staff should continue the search until EMS personnel arrive on the scene to assist with the search. You can cancel the EMS response if you find the missing person and he or she does not need medical assistance.

27. Describe the steps in a sample Emergency Action Plan. pgs. 125-135

Ensure Back-Up Zone Coverage Clear the Swimming Area

Summon EMS Personnel

**Control Bystanders** 

**Evacuate the Facility** 

Return to Duty Reopen the Facility Deal with Questions

Report, Advise, Release Take Corrective Action

- Call 9-1-1 or the local emergency number.
- Identify yourself.
- Explain the situation briefly (e.g., unconscious child pulled from the water).
- Explain the purpose of the call (e.g., need an ambulance, need police).

Attend the Operational Debriefing

28. Describe the importance of writing an incident report after an emergency. pg. 131 Also explain what type of information needs to be written in the incident report.

An incident report is a detailed summary of what happened during the emergency. It is very important that the incident report is detailed and clearly explains what happened in case of a lawsuit.

## TRAIN TO THE STANDARD, MEET THE OBJECTIVE.

In this course and throughout your ongoing training, you will be taught how to perform water rescues based on the lifeguarding standards. You will learn these techniques in a specific manner. However, in the real world, no two aquatic emergencies are exactly alike. Actual rescue situations often are fast-moving and rapidly changing. You may not be able to follow each step exactly as you have learned and practiced. So, in an actual rescue, keep in mind the skill steps you have learned, but your primary focus should be on the overall objective—**saving the victim's life**.

During this course and on the job, you must make decisions and handle situations as they occur. Keep in mind these four core objectives in any rescue situation:

- Ensure the safety of the victim, yourself and others in the vicinity. This includes the entry, approach, rescue, removal and care provided.
- Use a rescue technique that is appropriate and effective for the situation.
- Provide an appropriate assessment, always treating life-threatening conditions first.
- Handle the rescue with a sense of urgency.

29. Define the different types of water entries below:



a. Slide-in entry.

This technique is useful in shallow water, crowded pools or when a victim with a head, neck or spinal injury is close to the side of the pool or pier.

b. Stride jump.

Use the stride jump only if the water is at least 5 feet deep and you are no more than 3 feet above the water.

c. Compact jump.

You can use the compact jump to enter water from the deck or from a height, depending on the depth of the water. If jumping from a height (when you are more than 3 feet above the water, such as on a lifeguard stand or pier), the water must be at least 5 feet deep.

d. Run-and-swim entry.

To enter the water from a gradual slope-zero-depth area, such as a shoreline or wave pool-use the runand-swim entry.

30. Describe the following rescues for victims **at or near the surface** of the water:

- a. Active victim front rescue for a drowning victim who is facing toward you
- b. Active victim rear rescue for a drowning victim who is facing away from you
- c. Passive victim front rescue for a drowning victim facing you
- d. Passive victim rear rescue for a drowning victim facing away from you

31. Name 3 bloodborne pathogens of primary concern to lifeguards.

The bloodborne pathogens of primary concern to lifeguards are the **hepatitis B virus**, **hepatitis C virus** and **HIV**.

32. Name 4 conditions that must be met for a pathogen to spread.

- A pathogen is present.
- A sufficient quantity of the pathogen is present to cause disease.
- A person is susceptible to the pathogen.
- The pathogen passes through the correct entry site (e.g., eyes, mouth and other mucous membranes, nonintact skin, or skin pierced by needlesticks, animal and human bites, cuts, abrasions and other means).
- 33. Describe the procedure if a lifeguard is exposed to blood or other body fluids.
- Clean the contaminated area thoroughly with soap and water. Wash needlestick injuries, cuts and exposed skin.
- If you are splashed with blood or other potentially infectious material around your mouth or nose, flush the area with water.
- If your eyes are involved, irrigate them with clean water, saline or sterile irrigants for 20 minutes.

34. Describe what must be evaluated during a primary assessment. pg. 213

Conduct a primary assessment to determine if the victim has any life-threatening conditions and, if so, summon EMS personnel. The primary assessment includes **checking the victim for responsiveness**, **breathing** and a **pulse**, and **scanning** for **severe bleeding**.

35. Describe what must be evaluated during a **secondary assessment**. **pg. 217** 

If you are certain that the victim does not have any life-threatening conditions, you should perform a secondary assessment to identify any additional problems. The secondary assessment provides additional information about injuries or conditions that may require care and could become life-threatening if not addressed.

See Chapter 10, First Aid, for more information on injuries, illnesses and performing a secondary assessment.

36. An **adult** is considered anyone age 12 years or older.



37. A **child** is considered anyone age 1 year to about 12 years old.

38. An **infant** is considered anyone younger than 1 year.



39. Describe 2 signs and symptoms of **respiratory distress**:

- Slow or rapid breathing.
- Unusually deep or shallow breathing.
- Shortness of breath or noisy breathing.
- Dizziness, drowsiness or light-headedness.

#### • Changes in LOC.

Giving ventilations is a technique for breathing air into a victim to provide the oxygen necessary to survive. The air you exhale contains enough oxygen to keep a person alive. Each ventilation should last about 1 second and make the chest clearly rise. The chest should fall before you give the next ventilation.

#### pg. 237

40. For an **adult**, give 1 ventilation every  $\frac{5}{2}$  seconds.

41. For a **child** or **infant**, give 1 ventilation every 3 seconds.

When you give ventilations, the victim may **vomit**. Many victims who have been submerged vomit because water has entered the stomach or air has been forced into the stomach during ventilations. If this occurs, quickly turn the victim onto his or her side to keep the vomit from blocking the airway and entering the lungs.

42. Describe what **anaphylaxis** is, signs and symptoms, and treatment plan. pg. 240

Anaphylactic shock, also known as anaphylaxis, is a severe allergic reaction that can cause air passages to swell and restrict breathing. In susceptible people, triggers can include insect bites or stings, certain food and food additives, medication and chemicals.

43. Describe the procedure for helping a **conscious choking adult or child**.

- 5 back blows
- **5** abdominal thrusts (Use chest thrusts if you cannot reach around the victim or the victim is pregnant.)

44. Describe the procedure for helping a **conscious choking infant**.

- 5 back blows
- 5 chest thrusts

45. Describe the procedure for treating an **unconscious** adult or child from **choking**.

- Retilt the head and attempt a ventilation.
- Give 30 chest compressions.
- Look inside the mouth and remove the object if seen. Attempt ventilations.
- 46. Describe the procedure for treating an **unconscious** infant from **choking**.
- Retilt the head and attempt a ventilation.
- Give 30 chest compressions.
- Look inside the mouth and remove the object if seen. Attempt ventilations.



Reassess for breathing and pulse every 2 minutes.



- 47. List the 5 links in the Cardiac Chain of Survival.
- Early recognition and early access to the emergency medical services (EMS) system.
- Early CPR.
- Early defibrillation.
- Early advanced medical care. Post-cardiac care.

48. Describe what a **heart attack** does to the heart, ways of recognizing it, and treatment plan.

Blood clot in the heart. Symptoms include chest pain, shortness of break, jaw or back pain, tingling in the arms. Treatment is 911 and give chewable aspirin (as long as person is not allergic).

49. Describe what **cardiac arrest** is and the purpose of **CPR** and when it should be done.

Cardiac arrest occurs when the heart stops beating. CPR helps circulate oxygenated blood to the brain, thus delaying tissue death. CPR should be started immediately on someone who is unresponsive, not breathing and has no pulse.

Table 9-1: Summary of Techniques for CPR–Adult, Child and Infant			
	Adult	Child	Infant
Hand position	Heel of one hand in center of chest (on lower half of sternum) with the other hand on top		Two or three fingers on the center of the chest (just below the nipple line)
Compression depth	At least <b>2</b> inches	About <b>2</b> inches	About <b>1½</b> inches
Ventilations	Until chest clearly rises (about 1 second per ventilation)		
Cycles (one rescuer)	30 chest compressions and 2 ventilations		
Cycles (two rescuers)	<b>30</b> chest compressions and <b>2</b> ventilations	<b>15</b> chest compressions and <b>2</b> ventilations	
Rate	At least 100 compressions per minute		

# pg. 279

50. Describe the purpose of the **Automated External Defibrillator (AED)** and when it should be used. AEDs are portable electronic devices that analyze the heart's rhythm and provide an electrical shock. Defibrillation is the delivery of an electrical shock that may help re-establish an effective rhythm.

Shockable rhythms: pulseless ventricular tachycardia and ventricular fibrillation.

11



#### Using SAMPLE to Take a Brief History

- 51. Use the SAMPLE mnemonic as an easy way to remember what you should ask about when you are taking the brief history. Define what each letter means and provide a brief description.
  - S= Signs and symptoms
  - A= Allergies
  - M= Medications
  - P= Pertinent past medical history
  - L= Last oral intake
  - E= Events leading up to the incident

#### 52. Describe treatment for a **low blood sugar** (diabetic) emergency.

If the person is conscious and can safely swallow fluids or food, give him or her sugar. If it is available, give glucose paste or tablets to the victim. If not available, sugar in liquid form is preferred. Most fruit juices (e.g., about 12 ounces of orange juice), milk and non-diet soft drinks have enough sugar to be effective. You also can give table sugar dissolved in a glass of water. If the person has hypoglycemia, sugar will help quickly. 53. Describe procedure for treating a **seizure** on land and in the water. **pg. 308** 

**Seizure on land:** Protect the person from injury by moving nearby objects away from the person. **Seizure in the water:** Support the person with his or her head above water until the seizure ends

54. Describe how to identify a **stroke**.

#### FAST: F-face; A-arms; S-speech; T-time

Numbness or weakness on one side of the body; difficulty speaking, blurred vision, headache, dizziness.

#### 55. Describe how to care for **external bleeding**.

Direct pressure with bandage and wrap.

56. Describe how to care for **nosebleeds**.

Tilt head forward and pinch nose. Apply cold pack if necessary.

#### 57. Describe how to care for **eye injuries with an impaled object**.

Do not try to remove any object from the eye. Bandage loosely and do not put pressure on the injured eyeball. Stabilize the object as best as possible. Depending on the size of the object, you may be able to stabilize it by encircling the eye with a gauze dressing or soft sterile cloth, being careful not to apply any pressure to the area. Position bulky dressings, such as roller gauze, around the impaled object and then cover it with a shield such as a paper cup.

58. Describe how to care for an **amputated finger**.

Clean wound; put in a bag; then place in ice and transport to hospital.

59. Describe how to care for **jellyfish stings**.

Vinegar. A baking soda slurry also may be used if vinegar is not available. For "bluebottle" jellyfish, also known as Portuguese man-of-war, which are found in tropical waters, flush with ocean water instead of vinegar.

60. Describe how to care for **poisonings**.

If a person is showing signals of poisoning, call the Poison Control Center at 1-800-222-1222. If the person is unconscious or experiences a change in LOC, or if another life-threatening condition is present, summon EMS personnel.

#### 61. Describe how to care for **heat-related emergencies**.

- Move the victim to a cool place.
- Loosen tight clothing and remove perspiration-soaked clothing.
- Cool the victim by spraying with cool water or applying cool, wet towels to the skin.
- Fan the victim.
- Encourage the victim to drink small amounts of a commercial sports drink, milk or water if the victim is conscious and able to swallow.
- 62. Describe how to care for **cold-related emergencies** like frostbite and hypothermia.
- Perform a primary assessment, including a pulse check for up to 30 to 45 seconds. Summon EMS personnel.
- Gently move the victim to a warm place. Sudden movements may cause a heart arrhythmia and possibly cardiac arrest.
- Remove any wet clothing. Warm the victim by wrapping all exposed body surfaces in blankets or by putting dry clothing on the victim. Be sure to cover the head since a significant amount of body heat is lost through the head.
   Do not warm the victim too quickly, such as by immersing him or her in warm water.
- 63. Describe how to care for **broken bones**.

#### RICE Method:

R- rest

I- immobilize

C- cold

E- elevate

64. Describe how to care for **emergency childbirth**.

- Do not let the woman get up or leave to find a restroom (most women at this moment feel a desire to use the restroom).
- Be sure to allow the woman's knees to be spread apart to avoid causing complications or harm to the baby.
- Do not place your fingers in the woman's vagina for any reason.
- Do not pull on the baby.

Head, neck or spinal injuries often are caused by high-impact/high-risk activities.



65. Name 3 types of activities that can cause head, neck or spinal injuries.

Diving head first in shallow water; falling from greater than a standing height; striking submerged object; hit in head; colliding with another swimmer; striking the water at high impact.

66. Describe the signs and symptoms of head, neck, or spinal injuries.

Unusual bumps, bruises or depressions on the head, neck or back. Heavy external bleeding of the head, neck or back. Bruising of the head, especially around the eyes and behind the ears. Blood or other fluids in the ears or nose. Seizures. Changes in level of consciousness. Impaired breathing or vision.

67. Describe the **head-splint technique** for manual in-line stabilization for victims in the water.

- If the victim is face-up, approach from behind the victim's head.
- If the victim is face-down, approach from the victim's side.
- If the victim is in shallow water, you do not need to use the rescue tube to support yourself.
- If the victim is at the surface in deep water, you may need the rescue tube to support yourself and the victim.
- If the victim is submerged, do not use the

#### 68. Describe the steps of the **spinal backboarding procedure**.

After stabilizing the victim's head, neck and spine, you and at least one other lifeguard should place and secure the victim on a backboard. Using a backboard helps to immobilize the victim during the process of removing him or her from the water. A minimum of two lifeguards is needed to place and secure a victim on a backboard, but additional lifeguards or bystanders should also help, if available. To place a victim on a backboard, submerge the board, position it under the victim and carefully raise it up to the victim's body. You then secure the victim to the backboard with straps and a head immobilizer device.

69. Briefly explain how to perform the following skills to secure a victim suspected of having a spinal injury.

• Spinal backboarding procedures—shallow water

## View skill sheet

• Spinal backboarding procedures—deep water

## View skill sheet

Spinal injury removal from the water on a backboard

View skill sheet