

# Finding Out What's Wrong

3

## ► Victim Assessment Overview

During emergency situations when panic exists, knowing what to do and what not to do is crucial. A victim assessment is a sequence of actions that helps determine what is wrong and thus helps provide safe and appropriate first aid. Becoming familiar with the process of victim assessment will enable you to act quickly and decisively in hectic emergency situations. Victim assessment is an important first aid skill. It requires an understanding of each assessment step as well as decision-making skills.

Finding out what is wrong with a person will be influenced by whether the victim is suffering from an illness or an injury, whether the victim is responsive or unresponsive, and whether life-threatening conditions exist. A key point is to conduct a **primary check** first and to care for any problems you uncover before going on with the assessment.

Different problems and conditions require different approaches for determining what is wrong. Not all parts of an assessment apply to every victim, and the sequencing can vary depending on the victim's problem. Most victims do not require a complete assessment. For example, a victim who cut a finger while whittling a stick will not require a complete assessment, but a victim who slipped and fell 20 feet down a mountainside and cut a finger will, because other injuries might be present. **Table 1** and the flowchart give a preview of the sequence for the different types of victim you may encounter.

## chapter *at a glance*

- **Victim Assessment Overview**
- **Primary Check**
- **Secondary Check**
- **SAMPLE History**
- **What to Do Until Medical Help Is Available**
- **Triage: What to Do With Multiple Victims**



**Table 1** Sequence of Victim Assessment

Injured Victim			Suddenly Ill Victim	
	Responsive			
		Without Significant COI	Unresponsive	Responsive
<b>Unresponsive</b>	<b>With Significant COI</b>			
<ul style="list-style-type: none"> <li>• Primary check</li> <li>• Secondary check using the DOS parts of DOTS</li> <li>• SAMPLE history from others</li> </ul>	<ul style="list-style-type: none"> <li>• Primary check</li> <li>• Secondary check using DOTS</li> <li>• SAMPLE history</li> </ul>	<ul style="list-style-type: none"> <li>• Primary check</li> <li>• Examine chief complaint using DOTS</li> <li>• SAMPLE history</li> </ul>	<ul style="list-style-type: none"> <li>• Primary check</li> <li>• Secondary check using the DOS parts of DOTS</li> <li>• SAMPLE history from others</li> </ul>	<ul style="list-style-type: none"> <li>• Primary check</li> <li>• SAMPLE history</li> <li>• Examine chief complaint</li> </ul>

COI = cause of injury; also known as mechanism of injury. DOTS = deformity, open wounds, tenderness, swelling. SAMPLE = symptoms, allergies, medications, pertinent history, last oral intake, and events leading up to the illness or injury

A victim assessment can provide important information about a problem and help you determine how to treat it and whether medical care is needed. If the victim requires medical care, pass what you found during the assessment to the emergency medical service (EMS) personnel or health care providers. Call 9-1-1 for any victim with a significant **cause of injury (COI)** or **nature of illness**, and for any unresponsive victim.

You should check the victim systematically. You can do this by performing these five steps:

1. Perform a scene size-up (see the chapter entitled Action at an Emergency).
2. Perform a primary check.
3. Perform a secondary check, also known as a physical exam or head-to-toe exam.
4. Obtain the victim's SAMPLE history.
5. Perform a reassessment.

The scene size-up helps determine the safety of the scene and the general condition of the victim. It is followed by the primary check, in which the first aider identifies and treats immediate life-threatening conditions involving problems with the victim's breathing and severe bleeding. Victims with immediate life-threatening conditions can die within minutes unless their problems are quickly recognized and treated.

A **secondary check**, consisting of a physical examination, follows the primary check. These procedures can reveal information that will help identify the injury or illness, its severity, and what first aid is needed. Detailed information is gained about the

victim's injury (eg, a painful ankle or bleeding nose) or chief complaint (eg, chest pain or itchy skin).

Performing the secondary check right after the primary check and before doing the **SAMPLE history** allows an injury to be found and cared for sooner than if the SAMPLE history comes before the secondary check. In some cases, especially when caring for a stranger, performing the SAMPLE history before the secondary check involves a conversation with the stranger, which may ease the victim's anxiety about having a first aider conduct a secondary check. Also, in cases of illness, performing the SAMPLE history before the secondary check can indicate which part of the secondary check should be performed first.

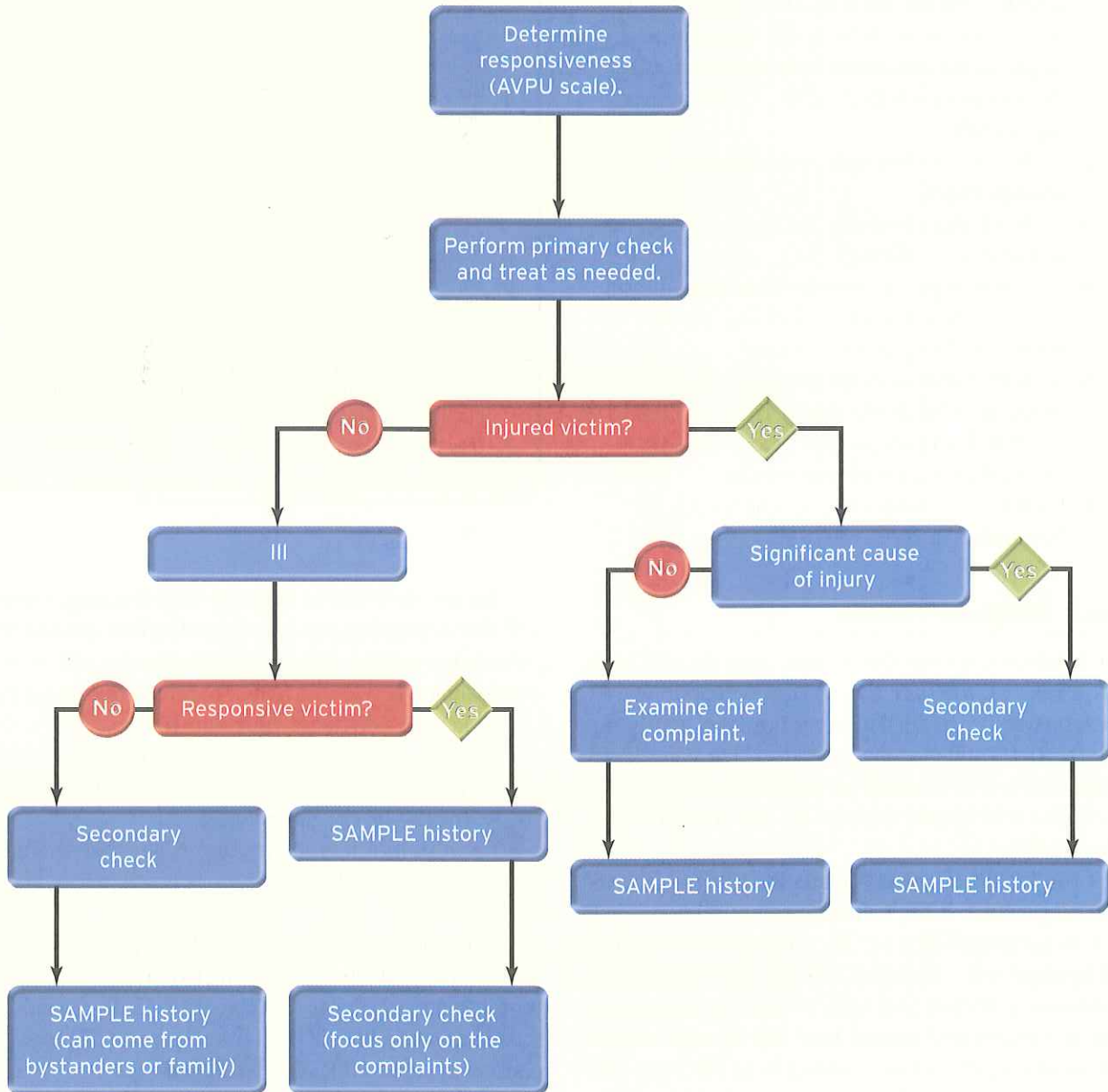
## ► Primary Check

The second part of a victim assessment sequence is always the primary check. The purpose of the primary check is to identify life-threatening conditions so you can immediately take action to treat the conditions. The primary check includes checking the victim's responsiveness, checking circulation, checking for breathing, and checking for severe bleeding.

### **First Impression of the Victim**

While approaching the victim, form an immediate **first impression** of the victim. This also has been

# Victim Assessment





referred to as a general impression, look test, or gut reaction. Both the scene size-up and your first impression of the victim should help determine:

1. Does the victim appear to have an injury or an illness? If you are unable to determine whether the victim is ill or injured, treat the situation as though he or she were injured. Impressions can come from such things as the victim's position and the victim's breathing sounds.
2. Is the victim obviously responsive or unresponsive?
3. Is the victim obviously breathing adequately or normally? Talking?
4. Are there signs of obvious bleeding—blood spurting, blood-soaked clothing, blood pooled on the ground or floor?
5. Is there a chance of exposure to the victim's blood or other body fluids? If so, be sure to use standard precautions before making physical contact with the victim.
6. Is there any danger to you, the victim, or bystanders at the scene?

### Check Responsiveness

Shortly after reaching the victim, you should have a good idea of whether the victim is responsive or unresponsive. If the victim is motionless, gently tap the victim's shoulder and ask loudly, "Are you okay?" Beyond this point, how and in what order you conduct the checks will largely depend on the answer to the above question.

If the victim answers, moans, or moves, the victim is responsive. If the victim does not respond, call 9-1-1 to activate EMS. In the unresponsive victim, look for regular breathing by taking a quick look at the chest to see if it rises and falls. If you cannot see any chest movement and cannot hear any sounds (except occasional gasping) of air coming from the nose and mouth, this indicates the victim is not breathing. Do not mistake occasional gasping for breathing—it is not! Take immediate steps to begin CPR, starting with 30 chest compressions followed by two breaths (1 second each). See the chapter entitled CPR for directions on how to perform CPR.

A victim's level of responsiveness can range from fully responsive (conscious) to unresponsive (unconscious). Not all responsive victims are fully alert, and they may respond to different levels of stimulation.

### FYI

#### Verbal First Aid: What to Say to a Victim

Use these guidelines for gaining rapport and calming alert and responsive injured and ill victims:

1. Avoid negative statements that could add to a victim's distress and anxiety.
2. Your first words to a victim are very important because they set the tone of your interaction.
3. Do not ask unnecessary questions unless it aids treatment or satisfies the victim's need to talk.
4. Tears and/or laughter can be normal. Let the victim know this if such responses seem to make him or her feel embarrassed.
5. Stress the positive. For example, instead of, "You will not have any pain," say, "The worst is over."
6. Do not deny the obvious. For example, instead of saying, "There is nothing wrong," say, "You've had quite a fall and probably don't feel too well, but we're going to look at you."
7. Use the victim's name while providing first aid.

For an alert victim, begin by introducing yourself. Tell the victim that you are trained in first aid and ask permission to help. For an alert, responsive victim, you can evaluate the victim's ability to remember by asking:

- Person—What is your name?
- Place—Do you know where you are?
- Time—What is the month and year?
- Event—What happened?

For a motionless victim, tap his or her shoulder and ask, "Are you okay?" If there is no response, check for breathing.

For an unresponsive victim, the steps resemble the same steps used when beginning to perform cardiopulmonary resuscitation (CPR)—RAP-CAB—although most unresponsive victims do not need CPR (see the chapter entitled CPR) **Skill Drill 1**:

- R** For any motionless person, check responsiveness by gently tapping the victim's shoulder and shouting, "Are you okay?" Speak loudly enough to wake the victim if he or she is sleeping (**Step 1**).
- A** If there is no response, activate EMS by calling 9-1-1 (**Step 2**).
- P** After calling to activate EMS, you should position the victim onto his or her back on a flat, firm surface. If the victim is breathing, place him or her in the recovery position and check for severe bleeding (**Step 3**).



**CAB** Immediately begin CPR for adult victims who are unresponsive and not breathing or not breathing normally (only gasping) (**Step 4**). If you are alone and the victim is a child or an infant, perform CPR for five cycles before calling 9-1-1. If a bystander is present for any victim, have him or her call 9-1-1 while you begin CPR. (See the chapter entitled CPR for directions.)

An unresponsive, breathing victim can receive other first aid, especially to control severe bleeding. Providing care would be covered by implied consent. (Refer to the chapter entitled Background Information.)

The steps for an alert, responsive victim are RAP-ABC. A first aider is more likely to see this type of victim. Responsive victims rarely need the type of primary check used in unresponsive victims. However, a responsive victim may be developing an airway obstruction, may have severe bleeding, may be having a heart attack, or may be in the early stages of shock or some other serious condition. Each of these conditions is considered a medical emergency, and immediate care must be provided if you suspect any of them. Follow these steps to care for an alert, responsive victim:

- R** While approaching a responsive victim, make eye contact, introduce yourself as a trained first aider, and give your name. Next, ask if you can help—this is asking for the victim's consent to help. With permission from the victim, perform a victim assessment.
- A** If the victim appears to be severely injured or ill, activate EMS.
- P** Position the victim in a comfortable position (eg, lying down, tripod position, leaning against stable object).
- A** Make sure that the airway stays open.
- B** Check breathing—are there abnormal breathing sounds (eg, wheezing, gurgling) or is the victim breathing fast?
- C** Check circulation—is there severe bleeding?

### Check Breathing

Check for adequate breathing by looking for chest rise and fall, listening for normal or abnormal breath sounds, and feeling for adequate air movement. Distinguish between effective and ineffective breathing efforts. Cyanosis and ashen (grey) skin are signs of inadequate oxygenation. See **Table 2** for breathing sounds that indicate a breathing problem.

**Table 2** Breathing Sounds

Breathing Sound	Possible Cause
Snoring	Airway partially blocked (usually by tongue)
Gurgling (breaths passing through liquid)	Fluids in throat
Crowing (noisy creak or squeak)	Spasm of the larynx; foreign body
Wheezing	Spasm or partial obstruction in bronchi (asthma, emphysema)
Occasional gasping breaths (known as agonal respirations)	Breathing after the heart has stopped

### Check for Severe Bleeding

Check for severe bleeding by quickly looking over the victim's entire body for blood (eg, blood-soaked clothing or blood pooling on the floor or the ground). This is not a head-to-toe examination, but a search for large amounts of blood around the victim or in the victim's clothing. In most cases, placing a sterile dressing over the wound and applying direct pressure with a hand or a pressure bandage controls the bleeding. Life-threatening external bleeding is rare, but when found, it must be controlled immediately or the victim can bleed to death. Avoid contact with the victim's blood whenever possible by using exam gloves or extra layers of dressings or cloth.

### Position the Victim

Most victims should not be moved, especially if a spinal injury is suspected. The exceptions to this "rule of thumb" include:

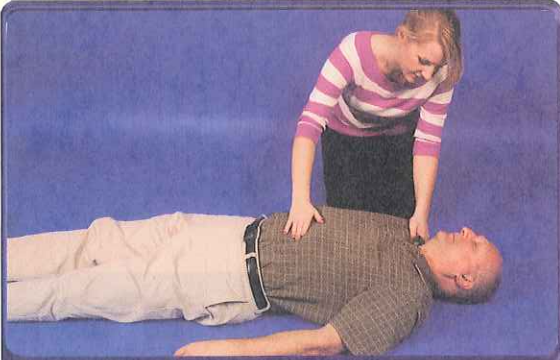
- When the victim and first aider(s) are in an unsafe location.
- When an unresponsive victim is face down (prone position) and needs CPR, the victim should be turned to face up (supine position) on a firm, flat surface to be in a position to receive CPR.
- When the victim has difficulty breathing because of vomiting or secretions, or if the



# skill drill

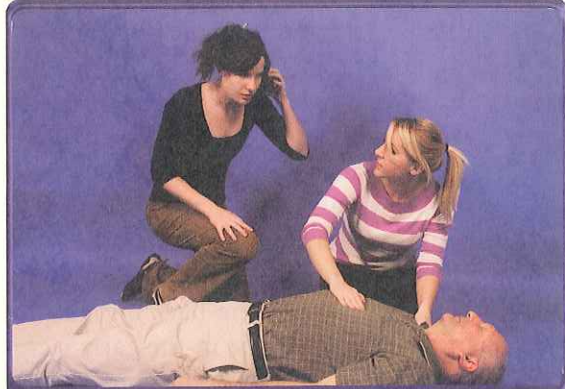
## 1

### Primary Check: RAP-CAB for Unresponsive Victim

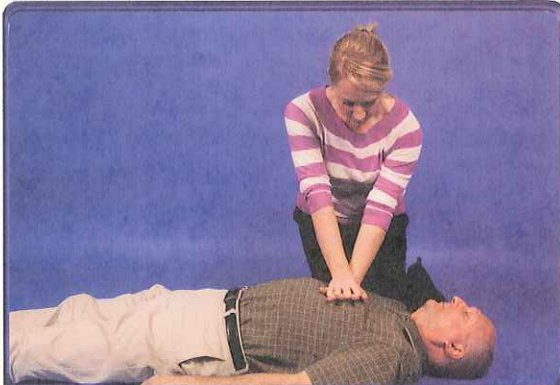


**1** Perform a scene size-up. Look for the cause of injury. Form a first impression of what's wrong.

R: Responsive? Tap shoulder and shout "Are you okay?" Check for signs of no breathing or abnormal breathing (eg, gasping).

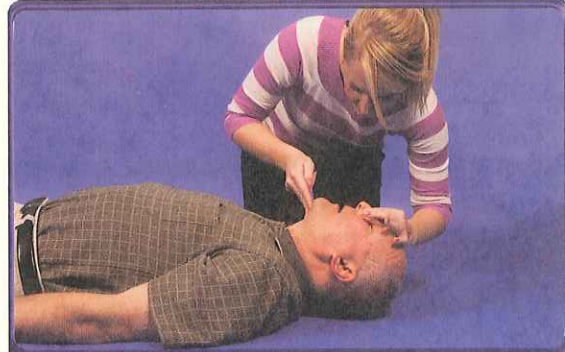


**2** A: Activate EMS. If alone, call 9-1-1, or have a bystander call.



**3** P: Position: If the victim is not breathing normally, place onto back on a flat, firm surface. If the victim is breathing, place in recovery position and check for severe bleeding.

C: If the victim is not breathing normally, give CPR starting with 30 chest compressions—push hard; push fast.



**4** A: Open the airway (head tilt-chin lift).  
B: Give two breaths (each lasts 1 second and makes chest rise). Provide continuous cycles of 30 compressions and 2 rescue breaths until an automated external defibrillator arrives, another trained person or EMS personnel takes over, or victim revives.



first aider is alone and must leave to get help. The victim can be placed in a modified High Arm IN Endangered Spine (HAINES) recovery position. It is best for the victim to rest on his or her left side. While rolling the victim into the side position, keep the victim's nose and navel pointing in the same direction to avoid twisting the spine. Roll the victim onto the left side using the following steps:

1. Keeping the victim's left arm straight, extend it above the head with the upper part of the arm next to the head.
  2. Bring the right arm across the chest and place the back of the victim's right hand against the left cheek; hold it there.
  3. Hold the victim's hand against the cheek to support the head. Bend the victim's far leg at the knee and pull the bent leg to roll the victim toward you.
  4. The victim's head remains on top of the left arm while rolling and the right hand stabilizes the head. The right bent knee prevents rolling.
- When signs of shock develop, place the victim on his or her back (supine position). Do not move the victim if suspected leg fractures or head or spine injuries exist.

Most victims with no suspected spine injuries may be placed in a position in which they are most comfortable. Victims with chest pain, nausea, or difficulty breathing fare better if in a half-sitting (semi-sitting) position at about a 45° angle. During an asthma attack, a victim may prefer the tripod position, which is sitting up, leaning forward with hands on knees and elbows out.

## Q&A

### When should a first aider interrupt a primary check?

When a life-threatening condition is identified during the primary check, first aid should begin immediately. For example, if a victim has an obstructed airway, this should be treated before going through the other assessment steps. Once the life-threatening condition (eg, choking) has been cared for and/or corrected, the primary check of the victim should continue until completed.

## Q&A

### Do I have to perform a complete victim assessment for every injured or suddenly ill victim?

No. Perform a primary check for every victim and acquire as much of each victim's SAMPLE history as you can. Performing a complete secondary check, which includes a head-to-toe physical exam, is crucial for the unresponsive, ill, or significantly injured victim. However, for the responsive ill person and the nonsignificantly injured victim, the secondary check focuses primarily on the victim's chief complaint.

## ► Secondary Check

A first aider should complete a secondary check following the primary check. Immediately treat any life-threatening problems found during a secondary check.

The goal of doing a hands-on secondary check is to identify any potentially life-threatening illness or injury needing first aid. A good secondary check is essential in discovering what is wrong. The adage of "find it; fix it" stresses the fact that you cannot provide first aid unless you know what is wrong. And you will not know what is wrong until you do a victim assessment.

Most of the victims a first aider will encounter require a secondary check of only the chief complaint, and a full secondary check (described below) is not needed. Nevertheless, first aiders should know how to perform one. In addition to the questions, "What's wrong?" or "What happened to you?" another important question to ask of the victim who has been injured is, "Do you hurt anywhere?" Many victims view a physical examination with apprehension and anxiety—they feel vulnerable and exposed. Maintain dignity throughout the assessment. Show compassion toward the victim and family members. If possible, the victim should be sitting or lying down.

Start by reconsidering the cause or mechanism of injury that you identified during the scene size-up. Ask the victim to describe what happened in detail, so that you can use the mechanism or cause of injury to predict possible injured areas—especially head, neck, spine, and internal injuries (see the chapter entitled Action at an Emergency). This helps to determine which first aid procedures to use.



Determine whether the cause or mechanism of injury was significant **Table 3**. In addition to the significant causes of injury, assume that a victim with a head injury also has a spinal injury until proven otherwise. About 15% to 20% of head injury victims also have a spinal injury.

For a responsive victim, check for a spinal injury by asking the victim the following questions (refer to Skill Drill 1 in the chapter entitled Head and Spinal Injuries):

- Can you feel me squeezing your fingers and toes? (Before doing this, have the victim look away or close his or her eyes.) While you are squeezing, ask the victim which finger or toe you are squeezing.
- Can you wiggle your fingers and toes?
- Can you squeeze my hand, and can you push your foot against my hand?

For an unresponsive victim, check the spinal cord by stroking the bottom of the foot firmly toward the big toe with a key or similar blunt object. This is known as the Babinski reflex test. The normal response is an involuntary reflex that makes the big toe go down (except in infants, in whom it goes in the opposite direction). If the spinal cord or brain is injured, the toe will flex upward for both adults and children.

If you suspect a spinal injury, do not move the victim's head or neck. Stabilize the victim against any movement, and tell him or her not to move.

A secondary check assesses the victim's entire body from head to toe; you will note the victim's signs and symptoms:

- **Signs**—victim's conditions you can see, feel, hear, or smell.
- **Symptoms**—things the victim feels and is able to describe; known as the chief complaint.

To check a part of the body, look and feel (mnemonic is LAF) for the following signs and symptoms of injury: deformities, open wounds, tenderness, and swelling. The mnemonic **DOTS** is helpful for

## Q&A

### When might an assessment be unreliable?

Use caution when assessing any victim who has an altered mental status, a distracting painful injury (eg, femur fracture), or who has ingested alcohol or drugs.

## Table 3 Significant Causes of Injury

- Falls of more than 15' for adults, more than 10' for children, or more than three times the victim's height
- Falls head-first from the victim's height or greater distance
- Vehicle collisions involving ejection, a rollover, high speed, a pedestrian, a motorcycle, or a bicycle
- Head trauma with altered mental status (V, P, or U on AVPU scale)
- Penetrations of the head, chest, or abdomen (for example, stab or gunshot wounds)
- Major burn injury
- Death of an occupant in the same vehicle
- Pedestrian hit by a vehicle

remembering the signs and symptoms of an injury

### Figure 1 :

- **D = Deformity**—abnormal shape of the body part (compare with the opposite uninjured part). Deformities occur when bones are broken or joints are dislocated.
- **O = Open wounds**—the skin is broken and there is bleeding.
- **T = Tenderness**—sensitivity, discomfort, or pain when touched.
- **S = Swelling**—area looks larger than usual. Caused by excess fluid in the tissue. When possible, compare one side of the body with the other side (eg, if an ankle appears swollen, look at the other one).

## Victim With a Significant Cause of Injury

This is a hands-on, full-body, head-to-toe assessment and should take no more than 2 minutes to complete. The victim may be responsive or unresponsive. Assume that an unresponsive victim has a spinal injury and stabilize the head and neck against movement. When a male examines a female, it is wise, if possible, to have another female present. Follow the steps in **Skill Drill 2** to perform a secondary check:

1. **Check the head.** Use both hands to check the scalp for DOTS. A deformity may be a bump or a depression. Do not move the victim's head during this procedure. Check



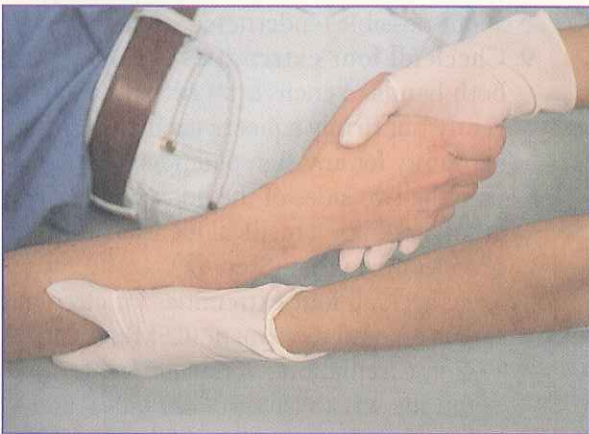


Figure 1

Examine an area by looking and feeling for: D = deformity; O = open wounds; T = tenderness; S = swelling.

the skin condition for temperature, color, and moisture.

2. **Check the eyes.** Compare the pupils, the dark part at the center of the eye. They should be the same size and react to light. The mnemonic PERRL helps you to remember what to look for **Figure 2**:

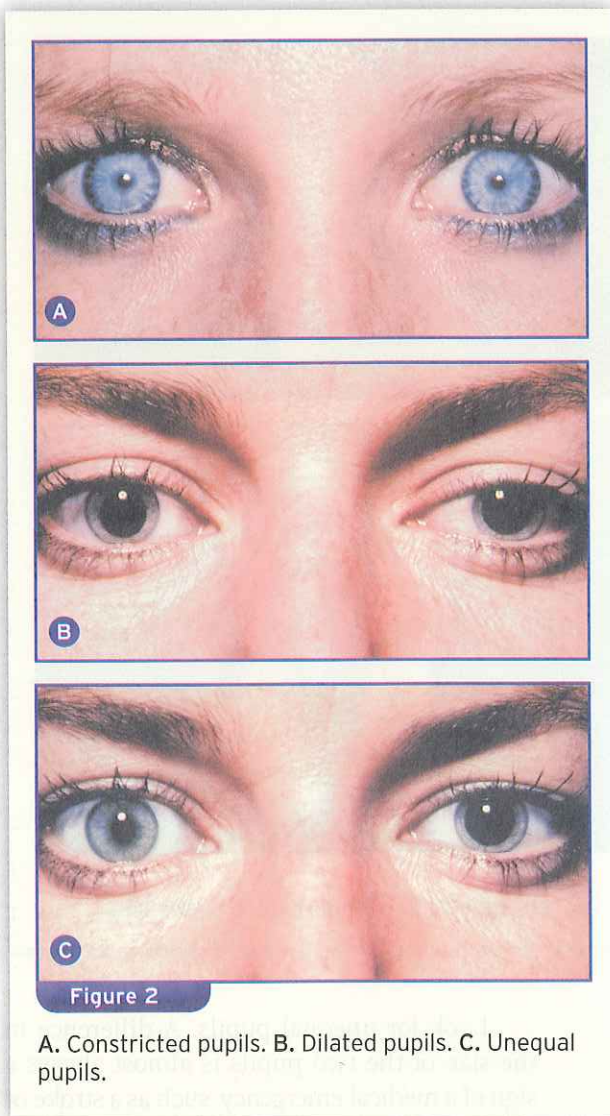
- P = pupils
- E = equal
- R = round
- R = react
- L = light

Use a flashlight to determine whether the pupils are reactive. If there is no flashlight, cover an eye with your hand and notice the pupil reaction when the eye is uncovered. Normally, the pupil constricts (gets smaller) within 1 second. No pupil reaction to light could mean death, coma, cataracts (in older persons), or an artificial eye. Pupil dilation happens within 30 to 60 seconds of cardiac arrest.

Look for unequal pupils. A difference in the size of the two pupils is almost always a sign of a medical emergency, such as a stroke or a brain injury. However, the unequal condition occurs normally in 2% to 4% of the population. Also, an artificial eye may give the appearance of unequal pupils. Look at the inner eyelid surface—pink is normal in all healthy people regardless of skin pigmentation. A pale color may indicate poor blood circulation.

3. **Check the ears and nose** for clear or blood-tinged fluid. Check the nose for DOTS.
4. **Check the mouth** for swelling or objects (eg, broken teeth, dentures, chewing gum, vomit, food, and foreign objects), which could block the airway (**Step 1**).
5. **Check the neck for DOTS.** Look for a medical identification necklace chain and tag (**Step 2**).
6. **Check the chest for DOTS.** Warn the victim that you are going to apply pressure to the





sides of the chest. Gently squeeze the chest inward and ask if doing so is painful. Pain from squeezing or compressing the sides may indicate a rib fracture (Step 3).

7. **Check the abdomen for DOTS.** Feel the abdomen for tenderness by pushing gently downward in all four of the abdominal quadrants (divide the abdomen into four parts by two imaginary lines intersecting at right angles at the navel). If a chief complaint is abdominal pain, ask the victim to point to where it hurts. Do not push on the area that hurts. Begin on the opposite side from the spot, and press gently on each abdominal quadrant to see if it hurts. As you press on an area, ask the victim if it hurts. Feel for

abnormal lumps and hardened areas. Do not push too deeply. The victim may “guard” an area if it is tender by tightening abdominal muscles or protecting that area with his or her hands. Anything protruding from the abdomen will be obvious, but be sure to check for penetrating objects (Step 4).

8. **Check the pelvis for DOTS.** If the victim does not report pain, gently press inward on the tops of the hip bones and then, if there was no pain, press downward on the same bones. Warn the victim before pressing about possible tenderness (Step 5).
9. **Check all four extremities for DOTS.** Use both hands to encircle an extremity and gently but firmly squeeze each part of the extremity for any sign of tenderness. Compare the two sides of the body with each other. Look for a medical identification bracelet on a wrist (Step 6).

Check all four extremities for circulation, sensation, and movement (CSM):

- C = Circulation—for arms, feel for radial (on the wrist’s thumb side) pulse, and for legs, feel the posterior tibial pulse behind the ankle bone (malleolus) on the inner (medial) side of the ankle.
- S = Sensation—pinch the end of fingers and toes (have victim close his or her eyes and tell you which finger or toe is being squeezed).
- M = Movement—have the victim wiggle fingers and toes.

10. **Check the back.** If no spinal injury is suspected, turn the victim onto his or her side and check for DOTS. You may have to turn the victim toward one side to check half of the back and then turn the victim the other direction to check the other half of the back (Step 7).

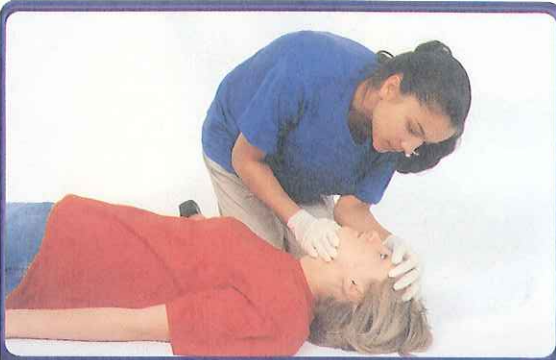
If you suspect a neck or spinal injury and the victim’s position is stable, tell the victim not to move while you are performing the check. If the victim is uncooperative or in an unstable position, you may have to stop at that point and stabilize the victim’s head and neck manually until more help arrives.

### Victim With No Significant Cause of Injury

When a victim has no significant cause (mechanism) of injury, a full body physical exam from head to toe is



# skill drill

**2****Perform a Secondary Check**

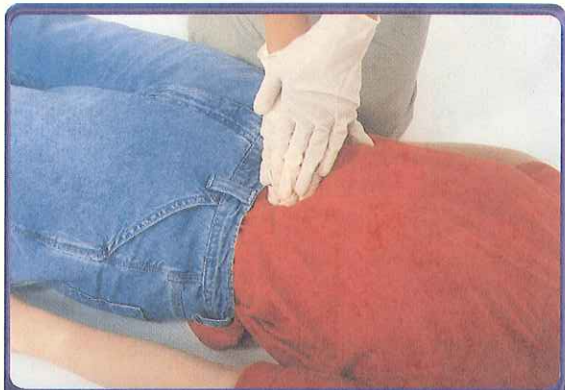
**1** Head-check for DOTS. Compare the pupils; they should be the same size and react to light. Check the ears and nose for clear or blood-tinged fluid. Check the mouth for objects that could block the airway, such as broken teeth.



**2** Neck-check for DOTS. Look for a medical identification necklace.



**3** Chest-check for DOTS. Gently press inward.



**4** Abdomen-check for DOTS. Gently press downward in all four quadrants.



## skill drill

**2****Perform a Secondary Check (continued)****5**

Pelvis—check for DOTS. Gently press downward on the tops of the hips.  
Pelvis—check for DOTS. Gently press inward on the tops of the hips.

**6**

Extremities—check both arms and legs for DOTS.

**7**

Back—if no spinal injury is suspected, turn the victim on his or her side and check for DOTS.



**Table 4 Skin Color**

Skin Color	Possible Cause
Pink	Normal color in nonpigmented areas regardless of skin complexion—lining of the eyelids, inside mouth, fingernail beds
Red (flushed)	Dilated blood vessels; excess circulation to that part of the body
White (pale)	Constricted blood vessels from blood loss, shock, hypothermia, emotional distress
Blue (cyanosis)	Lack of oxygen in the blood from breathing or heart problems
Yellow (jaundice)	Liver disease or failure

not needed. Instead, focus the assessment on the chief complaints (the areas that the victim complains about). For most first aiders, this will be the more frequently performed type of assessment.

### Special Considerations

#### Skin Condition

A quick check of the victim's skin can also provide information about the victim's condition. When assessing the head, check skin temperature, color, and moisture. Skin color, especially in light-skinned people, reflects the circulation under the skin as well as oxygen status (Table 4). For those with dark complexions, changes might not be readily apparent but can be assessed by the appearance of the nail beds, the inside of the mouth, and the inner eyelids.

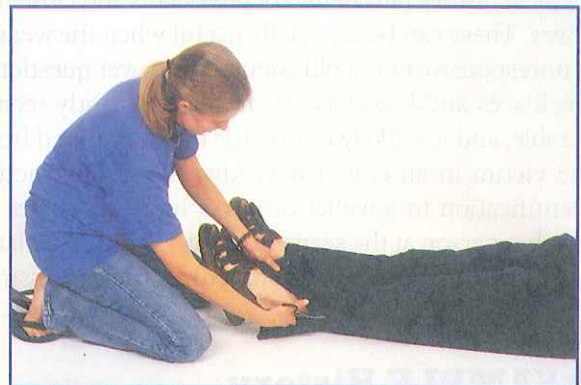
You can get a rough idea of skin temperature by putting the back of your hand or wrist on the victim's forehead to determine whether the temperature is elevated or decreased. Dry skin is normal. Skin that is wet, moist, or excessively dry and hot suggests a problem (Table 5).

#### Expose the Injury

Clothing might have to be removed to check for an injury and to give proper first aid. If you need to remove clothing, explain what you intend to do

**Table 5 Skin Temperature**

Skin Temperature/ Moisture	Possible Cause
Warm and dry	Normal
Hot and dry or moist	Excessive body heat (heat stroke, high fever)
Cool and moist (clammy)	Poor circulation, heat exhaustion, shock, acute stress reaction
Cold and moist	Body is losing heat
Cold and dry	Exposed to cold and has lost considerable heat (hypothermia)

**Figure 3**

Expose the injury. Remove as much clothing as necessary while trying to maintain privacy.

(and why) to the victim and any family members or bystanders. Remove as much clothing as necessary, try to maintain privacy, and prevent exposure to cold. Damage clothing only if necessary—cut along the seams (Figure 3).

#### Check for Medical Identification Tags

Look for a medical identification tag or for a medical information card in the victim's wallet or purse (this might be illegal in some states). It can be beneficial in identifying allergies, medications, or medical history (Figure 4). A medical identification tag, worn as a





Figure 4

Medical identification tag.

necklace or as a bracelet, contains the wearer's medical problem(s) and a 24-hour telephone number that offers, in case of an emergency, access to the victim's medical history plus names of physicians and close relatives. These can be especially useful when the wearer is unresponsive or not old enough to answer questions. Necklaces and bracelets are durable, instantly recognizable, and less likely than cards to be separated from the victim in an emergency. Always look for victim identification in a wallet or purse in the presence of another person at the scene to protect you against later accusations should money or credit cards be missing.

## ▶ SAMPLE History

The information in a SAMPLE history could help you identify what is wrong with the victim and can indicate the needed first aid. It is called a SAMPLE history because the letters in SAMPLE stand for the elements of the history **Table 6**.

In the best of circumstances, the victim will be able to answer all questions about his or her chief complaint and medical history. In other cases, this information may be obtained from family, friends, bystanders, medical identification jewelry, or other medical information sources.

**Table 6** SAMPLE History

Description	Questions
S = Symptoms	What's wrong? Where do you hurt? (known as the chief complaint)
A = Allergies	Are you allergic to anything?
M = Medications	Are you taking any prescription or nonprescription medications? What are they for?
P = Past medical history	Have you had this problem before? Have you had recent medical problems?
L = Last oral intake	When did you last eat or drink anything? What was it? How much?
E = Events leading up to the illness or injury	Injury: How did you get hurt? Illness: What led to this problem?

## FYI

### Check for Clues

In addition to a medical identification tag, there may be other clues to what might be wrong with a victim. A medicine bottle label gives the medication's name, but most first aiders will not know why the medication was prescribed. For example, suspect a diabetic emergency if you find glucose tablets or gel or insulin with a victim. An inhaler indicates that a victim has asthma. An auto-injector could point to a person's susceptibility for anaphylaxis caused by one of several things.

The cause (mechanism) of injury (such as a sharp object, broken glass, or bent steering wheel) can alert a first aider about an injury. Additionally, objects at the scene that are not the cause of an injury can offer a clue as to what may be wrong with a victim. Examples include a fallen ladder or an open medicine bottle.



## ► What to Do Until Medical Help Is Available

The primary and secondary checks and SAMPLE history are done quickly so that injuries and illnesses can be identified and given first aid. After the most serious problems have been cared for, regularly recheck an alert victim who has a serious injury or illness every 15 minutes, and at least every 5 minutes for an unresponsive victim or one having breathing difficulties, major blood loss, or who has experienced a significant cause of injury. When in doubt, keep checking the victim every 5 minutes or as frequently as possible.

## ► Triage: What to Do With Multiple Victims

You might encounter emergency situations in which there are two or more victims. This is often the case in multiple-car collisions or disasters. After making a quick scene size-up, decide who must be cared for and transported first. This process of prioritizing victims is called **triage**.

Various systems have been used to establish priorities. To find those needing immediate care for life-threatening conditions, tell all victims who can get up and walk to move to a specific area. Victims who can get up and walk rarely have life-threatening injuries. These victims are known as “the walking wounded.” Do not force a victim to move if he or she complains of pain.

Find the life-threatened victims by performing only the primary check on all remaining victims. Go to motionless victims first. You must move rapidly (spend less than 60 seconds with each victim) from one victim to the next until all have been checked. Classify victims according to the following care and transportation priorities:

1. Immediate care. Victims who have life-threatening injuries but can be saved.
  - a. Breathing difficulties (abnormal breath sounds or not breathing)
  - b. Severe bleeding
  - c. Severe burns
  - d. Signs of shock
  - e. Open chest or abdominal injuries
2. Delayed care. Victims who do not fit into the immediate or “walking wounded” categories. Care and transportation can be delayed up to 1 hour.
3. Walking wounded. Victims with minor injuries. Care and transportation can be delayed up to 3 hours.
4. Dead. Victims who are obviously dead, or unlikely to survive.

Recheck victims regularly for changes in their condition. Only after those with immediate life-threatening conditions receive care should those with less serious conditions be given care. You will usually be relieved from triage responsibility when more highly trained emergency personnel arrive on the scene. You might then be asked to provide first aid, to help move victims, or to help with ambulance or helicopter transportation.

# prep kit

## ► Ready for Review

- Victim assessment is a sequence of actions that helps determine what is wrong and thus ensures safe and appropriate first aid.
- Every time you encounter a victim, first check out the scene.
- Victim assessment will be influenced by whether the victim is suffering from an illness or an injury, whether the victim is responsive or unresponsive, and whether life-threatening conditions are present.
- The primary check determines whether there are life-threatening problems requiring quick care.
- The goal of a hands-on secondary check is to identify immediately any potentially life-threatening illness or injury.
- Look for medical identification tags on the victim.
- The information in a SAMPLE history can help you identify what is wrong with the victim and can indicate the needed first aid.
- Triage is the process of prioritizing victims.

## ► Vital Vocabulary

**cause of injury (COI)** The force that causes an injury.

**DOTS** A mnemonic for assessment in which each area of the body is evaluated for deformities, open wounds, tenderness, and swelling.

**first impression** The part of the victim assessment that helps identify any immediately or potentially life-threatening conditions.

**nature of illness** The general type of illness a victim is experiencing.

**primary check** A step of the victim assessment process in which a first aider checks for life-threatening injuries and gives care for any that are found.

**SAMPLE history** A brief history of a victim's condition to determine symptoms, allergies, medications, pertinent past history, last oral intake, and event leading to the illness/injury.

**secondary check** Part of the victim assessment process in which a detailed, area-by-area exam is performed on victims whose problems cannot be readily identified or when more specific information is needed about a problem.

**signs** Evidence of an injury or disease that can be seen, heard, or felt.

**symptoms** What a victim tells a first aider about what he or she feels.

**triage** A system of placing priorities for first aid and/or transportation in cases when two or more people are injured or suddenly ill.



## ► Assessment in Action

You are in a crowded mall doing some last-minute holiday shopping. You hear someone yelling for help at a nearby store. You are the first to arrive on the scene. Bystanders begin to approach and ask what is going on. The person who called for help witnessed the victim collapse.

**Directions:** Circle Yes if you agree with the statement; circle No if you disagree.

- Yes No 1. The first thing you should do is conduct a secondary check.
- Yes No 2. Your primary check of the victim includes identifying and treating immediate life-threatening conditions such as problems with the victim's breathing and severe bleeding.
- Yes No 3. When conducting the secondary check, use the AVPU scale to determine physical injuries.
- Yes No 4. The victim is responsive and alert. Ask permission from him before beginning first aid.
- Yes No 5. The victim asks you to stay until medical help arrives. You should continue to do regular checks of the victim every 15 minutes until medical help arrives.

## ► Check Your Knowledge

**Directions:** Circle Yes if you agree with the statement; circle No if you disagree.

- Yes No 1. The purpose of a primary check is to find life-threatening conditions.
- Yes No 2. A quiet, motionless victim could indicate a breathing problem.

- Yes No 3. Most injured victims require a complete secondary check.
- Yes No 4. For a secondary check, you usually begin at the head and work down the body.
- Yes No 5. If the victim is not breathing, give two breaths before giving chest compressions.
- Yes No 6. The mnemonic DOTS helps in remembering what information to obtain about the victim's history that could be useful.
- Yes No 7. For all injured and suddenly ill persons, look for a medical identification tag during a secondary check.
- Yes No 8. The mnemonic SAMPLE can remind you how to examine an area for signs of an injury.
- Yes No 9. If there is more than one victim, go to the quiet, motionless victim first.
- Yes No 10. A gurgling sound heard while checking for breathing indicates possible fluid in the throat.



# CPR

4

## chapter at a glance

- ▶ Heart Attack and Cardiac Arrest
- ▶ Caring for Cardiac Arrest
- ▶ Performing CPR
- ▶ Airway Obstruction

### ▶ Heart Attack and Cardiac Arrest

A **heart attack** occurs when heart muscle tissue dies because its blood supply is severely reduced or stopped. This often occurs because of a clot in one or more coronary arteries. The signs of a heart attack and the steps for caring for a heart attack are discussed in detail in the *Automated External Defibrillation* chapter.

If damage to the heart muscle is too severe, the victim's heart can stop beating—a condition known as cardiac arrest. Sudden **cardiac arrest** is a leading cause of death in the United States.

### ▶ Caring for Cardiac Arrest

Few victims experiencing sudden cardiac arrest outside of a hospital survive unless a rapid sequence of events takes place. One way of describing the ideal sequence of care that should take place when a cardiac arrest occurs is to think about the links in a chain. Each link is dependent on the others for strength and success. In this way, the links form a **chain of survival**.

The five events (links) that must occur rapidly and in an integrated manner during cardiac arrest are as follows:

1. **Recognition and Action** Recognizing the early warning signs of cardiac arrest and immediately calling 9-1-1 to activate emergency medical services (EMS)
2. **CPR** The chest compressions delivered during **cardiopulmonary resuscitation (CPR)** circulate blood to the heart and