



Shock

Shock is a major killer of patients. It can rapidly appear almost without symptoms. For this reason, shock is often called the “silent killer.” It is defined as “inadequate tissue perfusion.” This simply means that there is a lack of circulation or blood flow throughout the body, but most importantly to the major organs such as the heart, lungs, brain, kidneys, etc.

The symptoms of shock as described by the patient include a feeling of “impending doom” or a feeling that something terrible is going to happen soon, or that death might be imminent. Symptoms also include, weakness, nausea, excessive thirst, dizziness, coolness, restlessness or anxiety.

The signs of shock as described by the caller based on their own observation include pale, cool and/or moist skin, shallow and/or rapid breathing, lackluster eyes and/or dilated pupils (pupils appear larger than they should), decreasing levels of consciousness leading to unconsciousness, fluid loss from bleeding, vomiting or diarrhea, weak or “thready” pulse and a steady drop in blood pressure.

Sign vs. Symptom

One of the most confusing aspects of patient assessment, not just for telecommunicators but for emergency responders in general, is learning the difference between a sign and a symptom. Essentially, a sign is an indication of a patient’s condition that is objective, or can be observed by another person. An indication that can be seen, heard, smelled, or felt by an observer. A symptom, on the other hand, is an indication of a patient’s condition that cannot be observed by another person but rather is subjective, or felt and reported by the patient. A symptom is something that is felt or experienced by the patient and a sign is something that is seen by someone other than the patient. For example, you can see that a person is bleeding but a person must tell you that they are dizzy. Bleeding is a sign, while dizziness is a symptom.

There are many different types of shock. You may never encounter them all, but a telecommunicator must be familiar with the most common types. They

are anaphylactic shock, cardiogenic shock, hemorrhagic shock, hypovolemic shock, neurogenic shock, septic shock and psychogenic shock.

Anaphylactic shock is also called “allergic shock” and usually accompanies the ingestion, inhalation, injection or absorption of a substance to which a patient is severely allergic. The most common cause of anaphylactic shock is insect stings. Signs and symptoms include difficulty breathing, swelling of the face and or tongue, tightness in the chest, itching/burning skin and hives covering large parts of the body.

Cardiogenic shock occurs when the heart is no longer able to develop enough pressure to circulate blood properly. This can occur with heart failure.

Hemorrhagic shock occurs when the body loses large amounts of blood through internal or external bleeding. This can occur from severe traumatic injuries.

Hypovolemic shock occurs when the body loses large amounts of body fluids through vomiting, diarrhea or perspiration.

Neurogenic shock usually occurs with spinal cord damage. Blood vessels that are normally constricted or tightened begin to relax and blood pressure rapidly drops. This causes blood to begin pooling below the level of the spinal cord injury.

Psychogenic shock, also known as fainting, occurs when blood vessels suddenly dilate because of some shock to the system like extreme fear or minor injury. Blood flow to the brain is temporarily interrupted and the person faints.

Septic shock is caused by severe infections. Toxic substances from the infection cause blood vessels to dilate and plasma to be lost through vessel walls.

Shock can kill quickly and without warning. There are a number of things you can tell callers to do to alleviate the danger of shock until help arrives. Do not give the patient anything to eat or drink. Make sure the patient’s airway is clear. Control bleeding (if external) by the use of direct pressure and clean dressings. Calm and reassure the patient. Lay the patient on their side (preferably the left side) or allow them to remain in a position of comfort, unless they are trauma patients. Do not move trauma patients unless absolutely necessary – this essentially means imminent death situations. Keep the patient warm and prevent the loss of body heat by covering the patient with something.

Bleeding has some unique problems of its own and may elicit strong emotional responses. Severe bleeding must be treated immediately.

The body attempts to stop bleeding using the process called “clotting”. Clotting is when blood platelets break down and block the hole through which the blood is escaping. When the bleeding is severe (as with a cut artery), the clotting can’t happen fast enough or completely enough to fill the hole, resulting in shock and then death.

Almost all external bleeding can be stopped through direct pressure. The caller (or a bystander) is told to use a universal bandage or clean gauze pad and press down directly on the open wound. In most situations, callers won’t have these. Tell them to use the cleanest cloth available. When telling callers to use direct pressure, tell them to put a lot of pressure on the wound. Using lots of pressure will even stop arterial bleeds.

Tell callers not to remove soaked bandages (or “dressing”) because this will rip open the clot forming in the wound. If they feel they need to replace the bandage because it is soaked, simply place another on top and continue pressure. If the bleeding has stopped, they can tie the dressing in place with a bandage. In cases of internal bleeding, you just need to recognize it because of shock issues, because there’s not much you can do about it.

A Word About Tourniquets

Tourniquets can cause a lot of damage by stopping the flow of blood completely through a limb. This causes nerve and cell damage that is frequently permanent and can even result in amputation. If a caller says that a tourniquet has already been applied, leave it on. Removing a tourniquet can release toxins and other contaminants (caused by the death of the blood cells in the damaged limb from oxygen deprivation) into the body. At the same time, never instruct a caller to apply a tourniquet.

By Bob Smith, APCO Institute, EMD Program/Operations Manager

Resources and Helpful Websites

- * www.apcoinstitute.org APCO Institute Website
- * www.amtrauma.org American Trauma Society Website
- * Basic Emergency Medical Dispatch 5th Edition, APCO Institute
- * Public Safety Telecommunicator 1 textbook, APCO Institute
- * National Standard Curriculum for EMD, NHTSA

Quiz

CDE Article – Shock

Name: _____ Date: _____

Agency: _____

Address: _____

Phone: _____

Fax: _____

Email: _____

1. Shock is commonly referred to as:
 - a. The silent killer
 - b. The imminent death
 - c. The impending doom
 - d. The fatal affliction

2. Shock is defined as:
 - a. A severe reaction to trauma
 - b. Imperfect breathing rhythms
 - c. Inadequate tissue perfusion
 - d. Inadequate core body temperature

3. Which of the following is a sign?
 - a. Nausea
 - b. Dizziness
 - c. Vomiting
 - d. Weakness

4. Which of the following is a symptom?
 - a. Cool, moist skin
 - b. Weak, thready pulse
 - c. Dilated pupils
 - d. Excessive thirst

5. Anaphylactic shock is also called:
 - a. Heart failure
 - b. Allergic reaction
 - c. Blood loss
 - d. Dehydration

6. Damage to the spinal cord causes which type of shock:
 - a. Hypovolemic
 - b. Cardiogenic
 - c. Neurogenic
 - d. Anaphylactic

7. The process used by the body to stop bleeding is called:
 - a. Halting
 - b. Pressing
 - c. Clotting
 - d. Damping

8. If a caller says that a tourniquet has already been placed on the victim, the EMD should not instruct the caller to remove it.
 - a. True
 - b. False