Treating for Shock

The following material may assist you in treating a victim for shock. This information is derived from "Advanced First Aid & Emergency Care," 2nd edition, by the American Red Cross. To obtain a copy of this book and to take instruction in first aid, please contact the local office of the American Red Cross. They are listed in the white pages of your telephone book.

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Define what is "shock"

Shock is a condition resulting from a depressed state of many vital body functions. It can threaten life even though the injuries or conditions that caused the depression may not otherwise be fatal. The body's vital functions are depressed when there is a loss of blood volume, a reduced rate of blood flow or an insufficient supply of oxygen. Injury-related shock, commonly referred to as traumatic shock, is decidedly different from electric shock, insulin shock, and other special forms of shock.

The degrees of shock is increased by abnormal changes in body temperature, by poor resistance of the victim to stress, by pain, by rough handling and by delay in treatment.

What are the causes of shock?

Shock may be caused by severe injuries of all types - hemorrhage, loss of blood plasma in burns, muscle swelling, loss of body fluids other than blood (as in prolonged vomiting and dysentery), by infection, by heart attack or stroke, by perforation of a stomach ulcer, by rupture of a tubal pregnancy, by anaphylaxis or by poisoning involving chemicals, gases, alcohol or drugs. Shock also results from lack of oxygen caused by obstruction of air passages or injury to the respiratory system.

What are the EARLY stages and signs of shock?

In the early stages of shock, the body compensates for a decreased blood flow to the tissues by constricting the blood vessels in the skin, soft tissues and skeletal muscles. Their constriction causes an emergency redistribution of blood flow to the heart, brain and other vital organs and may lead to the following signs:

a. Pale (or bluish) skin, cold to the touch and possibly moist and

clammy. In the case of victims with dark skin pigmentation, it may be necessary to rely primarily on the color of the mucous membranes on the inside of the mouth, on the inside of the eyelids or in the fingernail or toenail beds.

b. Weakness.

c. Rapid pulse (usually over 100 beats per minute or over about 17 beats in 10 seconds), often too faint (due to decreased blood pressure) to be felt at the wrist but perceptible in the carotid artery at the side of the neck or in the femoral artery near the groin.

d. Increased rate of breathing, possibly shallow, possibly deep and irregular. If there has been an injury to the chest or abdomen, breathing will almost certainly be shallow because of the pain involved in breathing deeply. A person in shock from hemorrhage may be restless and anxious (early signs of lack of oxygen), thrashing about and complaining of severe thirst and he may vomit or retch from nausea.

What are the LATE stages and signs of shock?

If the victim's condition deteriorates, he may become apathetic and relatively unresponsive because his brain is not receiving enough oxygen. His eyes will be sunken, with a vacant expression, and his pupils may be widely dilated. Some of the blood vessels in the skin may be congested, producing a mottled appearance; this condition is a sign that the victim's blood pressure has fallen to a very low level. If untreated, the victim eventually loses consciousness, his body temperature falls and he may die.

What are the objectives in the treatment for shock?

The objectives of first aid care in shock are to improve circulation of the blood, to ensure an adequate supply of oxygen and to maintain normal body temperature.

What is the proper first aid treatment for shock?

Give urgent first aid to eliminate causes of shock, such as stoppage of breathing, hemorrhaging and severe pain. Steps for preventing shock and for giving first aid for shock are as follows:

a. Keep the victim lying down.

b. Keep him covered only enough to prevent loss of body heat.

c. Summon/obtain professional medical help.

The victim's position must be based on his injuries. Generally, the most satisfactory position for the injured person will be lying down, to improve blood circulation. If injuries of the neck or lower spine are suspected, do NOT move the victim until he is properly prepared for transportation, unless it is necessary to protect him from further injury or to provide urgent first aid care.

A victim who has severe wounds on the lower part of the face and jaw or who is unconscious should be placed on his side to allow drainage of fluids and to avoid blockage of the airway by vomitus and blood. Extreme care must be taken to provide an open airway and to prevent asphyxia. Place a victim who is having difficulty in breathing on his back, with his head and shoulders raised. A person with a back injury may be kept flat or propped up, but his head must NOT be lower than the rest of his body. A victim with severe brain injury may be unconscious, but unconsciousness is not itself a cause of shock unless he also has associated fractures or major wounds. IF IN DOUBT CONCERNING THE CORRECT POSITION ON THE BASIS OF THE INJURIES, KEEP THE VICTIM LYING FLAT.

A victim in shock may improve with his feet (or the foot of the stretcher) raised from 8 to 12 inches. This position helps to improve blood flow from the lower extremities. If in doubt as to whether the victim's feet should be raised, keep the victim flat. If he has increased difficulty in breathing or experiences additional pain after his feet are raised, lower them again.

Keep the victim warm enough to overcome or avoid chilling. If he is exposed to cold or dampness, place blankets or additional clothing over and under him to prevent chilling.

Do NOT add extra heat, because raising the surface temperature of the body is harmful to shock victims. Heat draws the diverted blood supply back to the skin from the more vital organs, thus robbing them of critically needed blood.

What are the cautions and prohibitions about giving fluids to the victim?

Although giving fluid by mouth has value in shock, fluids should ONLY be given when medical help or trained ambulance personnel will not reach the scene for an hour or more. Other exceptions are when victims are unconscious, have convulsions, are vomiting or are likely to vomit. (They may aspirate fluids into the lungs if given fluids by

mouth under these conditions.) Do not give fluids to victims who are likely to require surgery or a general anesthetic or who appear to have an abdominal injury. Oral fluids are harmful after injury to the brain, because additional fluids in the body may increase swelling of the brain. (A person with brain injury is likely to be unconscious or vomiting.) Fluids may be given by mouth ONLY if medical care is delayed for an hour or more and none of the above contraindications exist.

Water, preferably water that contains salt and baking soda (1 level teaspoon of salt and 1/2 level teaspoon of baking soda to each quart of water) and that is neither hot nor cold - is recommended. Adults may be given about 4 ounces (1/2 glass) every 15 minutes; children, ages 1 to 12, 2 ounces; infants, 1 year or less, 1 ounce. Discontinue if nausea or vomiting occurs.

The preferred method of is by intravenous administration of fluids, a technique that provides intravascular volume restoration. However, this technique must only be used by individuals with specialized training and with authority.