

Boy Scouts of America (BSA) & American Red Cross (ARC)

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ARC class manuals are available for free down-load and printing at <http://www.redcross.org/take-a-class/program-highlights/cpr-first-aid/workplaces-schools-individuals>

Scouts are still expected to read their Scout Handbook & First Aid Merit badge book

Goals of First-Aid:

- 1) Be aware of risks and take steps to reduce or manage it (prevention and situational awareness)
- 2) When an accident occurs, know how to handle it
 - a. Check the scene & approach safely
 - b. Call for help if more than a minor injury
 - c. Ask for victim's consent to be treated (if victim is unconscious or disoriented, assume yes)
 - d. Treat immediate, life-threatening medical emergencies first (breathing & bleeding)
 - e. Protect a person who is injured or ill from further harm
 - f. Treat for shock
 - g. Make a thorough examination
 - h. Plan a course of action
- 3) Get the person under professional medical care if needed

Requirement 2

Explain how you would obtain emergency medical assistance from your house, on a wilderness camping trip, and during an activity on open water.

- **At home:** Keep emergency numbers posted at the phone along with your address. 911 service is available in most areas. If phones are not working, go to a neighbor that has emergency training.
- **Wilderness:** Cell phone, radio, messenger, or evacuate. Signal fires and sounds are a last resort if you cannot evacuate. Be sure to leave a map and schedule at home to trigger an automatic rescue response.
- **Open Water:** Powered craft should be equipped with a marine band radio tuned to the emergency channel (#16). Flares and smoke bombs can be carried on any boat but must be used with caution. A distress flag (orange with a black dot and a black square) or signal mirror may be useful over short distances.

Explain the term triage.

Triage: the process of sorting victims, as of a battle or disaster, to determine medical priority in order to increase the number of survivors; the determination of priorities for action in an emergency.

Explain the standard precautions as applied to blood borne pathogens.

Treat all blood as if it were contaminated with blood borne pathogens. Thoroughly wash your hands with soap and water before and after treating a sick or injured person. Never use your bare hands to stop bleeding. Use a protective barrier, preferably nonlatex disposable gloves (a new, unused plastic food storage bag will work in a pinch). Safely discard all soiled bandages, dressings, and other used first aid items by putting them in a double plastic bag until they can be disposed of properly in a receptacle for bio-hazards.

Prepare a first aid kit for your home. Display and discuss its contents with your counselor.

Suggested items

Roller bandage, 2" (1); Roller bandage, 1"(2); Triangular bandages (2); Elastic bandages, 3" wide (2)

Adhesive bandages, assorted sizes (24); Sterile gaze pads, 3-by-3”(12); Adhesive tape, 1” (1 roll); Moleskin, 3-by-6-inch (2); Soap (1 small bar) or alcohol-based hand sanitizing gel (1 travel sized bottle); Triple antibiotic ointment (1 small tube); Gel pads for blisters/burns (2 packages), Alcohol swabs (24); Scissors (1 pair); tweezers (1 pair); Non-latex disposable gloves (6 pairs); CPR breathing barrier (1); protective goggles/safety glasses (1); 1 gallon sized sealable plastic bags (4); pencil & paper

Requirement 3

Explain what action you should take for someone who shows signs of a heart attack.

Lay the victim down and elevate legs. Call 911. Keep warm, calm and comfortable. Monitor breathing as CPR may be required before help arrives. Transport only if no EMS is available. Under no circumstances should the patient attempt to drive to the hospital.

Identify the conditions that must exist before performing CPR on a person.

Rescue breathing is used if the victim does not begin breathing when the airway is opened. It also helps warm a severely hypothermic person who is breathing very slowly. Chest compressions should only be used when there are no signs of responsiveness: coughing, moving, breathing, reaction to touch or voice.

Demonstrate proper technique in performing CPR using a training device approved by your counselor. (In-Class)

Show the steps that need to be taken for someone suffering from a severe cut on the leg and on the wrist. Tell the dangers in the use of a tourniquet and the conditions under which its use is justified.

The steps for first-aid of severe bleeding are:

1. Utilize personal protective devices (non-latex gloves, protective goggles)
2. Direct pressure – with a clean cloth or sterile pad, place a hand firmly over the wound and press hard. After bleeding has stopped, hold pad in place with a sterile bandage. If blood soaks through the first pad, place another pad on top of it & continue applying pressure.
3. Elevation -- if on an extremity, lift the limb over the person's heart
4. Pressure point -- place directed pressure at one of the "pressure points" to reduce bleeding. On the arm, this is between the bicep and tricep on the upper arm (a pulse is normally palpable) and on the leg midway down the thigh and between the two leg muscles.
5. Tourniquet -- (For use in emergencies only) tie a cravat, rope or belt above the wound as tight as possible, in order to completely cut off circulation to the injured area. The most typical method of tying it is a simple overhand knot, held tight while a pencil or stick is placed on top of the middle of the knot. Another overhand knot is tied, and the pencil or stick can be twisted to tighten the knot. Cutting off circulation for extended periods can lead to the amputation of the limb, so this must not be used unless all other methods have been tried and there is no hope for help in the near future. The time should be noted when the tourniquet is applied, as this will be helpful for the doctors.

Explain when a bee sting could be life threatening and what action should be taken for prevention and for first aid.

Bee stings can cause a fatal reaction called [anaphylaxis](#) in people who have a severe allergy to bee venom. It is possible to have the same reaction to foods and medicines (peanuts and shellfish are also common causes of anaphylactic reactions). The effects are nearly immediate -- swelling of the neck and face, sweating, difficulty breathing and hives are among the most common signs. Many people with severe allergies, especially bee stings, carry a device called an *Epi-Pen*. An *Epi-Pen* is a dosage of a powerful drug, epinephrine, which

counteracts an anaphylactic reaction. To use it, remove the safety cap and simply press the needle end firmly against the victim's thigh, about midway between the knee and hip. The spring-loaded needle will automatically extend, delivering the epinephrine into the muscle where it will be rapidly transferred into the bloodstream. The effect of the epi-pen is temporary, however, and the person must still get medical attention quickly.

Explain the symptoms of heat stroke and what action needs to be taken for first aid and for prevention.

Heatstroke occurs in two steps:

- 1) **Heat Exhaustion**: occurs by a combination of dehydration and warm weather. Symptoms include severe lack of energy, weakness, headache, nausea, faintness and sweating; cool, pale moist skin and a rapid pulse. Treatment involves 2-3 hrs of cooling the victim in the shade or air-conditioning, encourage them to drink cool water or sports drinks to rehydrate.
- 2) **Heatstroke**: occurs when the core body temperature rises too high (105°F+) for the body's natural cooling mechanisms to function efficiently and can lead to death if not treated immediately. Key symptoms include those of heat exhaustion plus confusion, hot/flushed skin, and excessive or non-existent sweating. Treatment includes calling for medical assistance and working to lower the victim's body temperature. A victim should be placed in a shady or cooled environment, have tight clothing loosened, fanned and applying wet towels to exposed skin. If ice packs are available, wrap in a thin towel and place under the armpits and around the neck/groin. If the victim is able, give them cool water to drink in small amounts.

Requirement 4

Describe the signals of a broken bone. Show first-aid procedures for handling fractures, including open (compound) fractures of the forearm, wrist, upper leg, and lower leg using improvised materials.

Definition: If more pressure is put on a bone than it can stand, it will split or break. A break of any size that does not cut through the skin it is called a closed fracture (or simple fracture). If the broken bone punctures the skin creating an open wound, it is called an open fracture (compound fracture).

Signs of a broken bone (if yes...):

- Did you feel or hear a bone snap?
- Do you feel pain when you press on the skin over the suspected fracture?
- Are you unable to move the injured limb?

Treatment of a bone fracture (splints):

- Can be made of any material, soft or hard, that can be bound to the fractures limb
- Is used to stabilize the injured area and prevent further damage
- Make the splint long enough to immobilize the joints above and below the fracture
- Provide padding to increase victim comfort and secure with neckerchiefs, bandaged or other strips of cloth

Broken Bone Don'ts:

- DO NOT move the person unless the broken bone is firmly secured with a splint or sling.
- DO NOT try to reposition or move a bone that is sticking out
- DO NOT try to clean the wound of an open fracture

- DO NOT move a person with an injured hip, pelvis, or upper leg unless it is absolutely necessary. If you must move the person, pull the person to safety by his clothes (such as by the shoulders of a shirt, a belt, or pant-legs).
- DO NOT move a person who has a possible spine injury.
- DO NOT try to reposition a suspected spine injury.

Use of slings: help support an injured hand, arm, collarbone, or shoulder.

Describe the symptoms and possible complications and demonstrate proper procedures for treating suspected injuries to the back, neck, and head. Explain what measures can be taken to reduce the possibility of further complicating these injuries.

Anybody that has fallen, been in a car crash, or hit their head should be suspected of having a back or neck injury. Symptoms may include the person is complaining of any pain in their head, neck, or back, or they have numbness in any of their extremities. However, the person may not be complaining of any pain at all and still have an injury. The problem with these injuries is that any damage to the back and especially the neck can lead to paralysis or even death. A head injury can lead to brain damage, blood loss, or death. The most important thing to remember about spinal injuries is not to move the person unless absolutely necessary. Moving the person can make a bad injury worse. The only times when you should move such a person is if:

- You must move them to get to a more seriously injured person.
- The person is in a dangerous position and you are able to move them to a safer place
- You need to perform CPR and need to place the person on a hard surface

The best thing that you can do is to tell the person not to move. If needed, hold their head in place. Medical professionals call this "holding C-Spine," or the inline neutral position. Make sure that the person can breathe and they have a pulse, and then wait for help to arrive. If the victim must be moved, ask for other scouts or bystanders to help so that the victim's body can be turned or lifted all at once without causing any twists or turns of the spine.

If the person is bleeding from the head, try to stop the bleeding. Direct pressure is important here, but do not press too hard as you might further injure the skull.

Requirement 5

- Hypothermia: Hypothermia occurs when a person's body is losing more heat than it can generate and the core body temperature becomes too low. Ordinarily, the body begins shivering to regain lost heat. When the heat loss becomes severe, hypothermia begins and the victim may shiver uncontrollably and experience numbness, fatigue, confusion, poor judgment or unconscious. Treat a hypothermia victim by preventing the person from getting colder and help bring the body temperature back to normal. Get the victim under shelter and begin warming the victim's body with extra clothing (or the replacement of wet clothing), towel wrapped heat packs, body heat, and/or giving the victim warm drinks if they are able to swallow. Re-warming should occur over time rather than suddenly. Rapid re-warming of a chronic hypothermia patient can lead to an irregular and dangerous heartbeat. Monitor the victim closely for any changes in condition.

- Convulsions/Seizures: Convulsions are involuntary muscle spasms that can be caused by a variety of diseases and injuries. There is no emergency treatment, but it is important to not hold the victim down or otherwise restrain him, and to give nothing by mouth (contrary to widely-held opinion, the victim will not "choke on his tongue"). These seizures are not uncommon in people afflicted with epilepsy, and these convulsions are generally not dangerous (though a doctor should still be consulted if the seizure lasts longer than 5 minutes). You should also remove all loose furniture that the victim could injure themselves by flailing a body part into it. Try to reassure the person and be sure that they can breathe. Once the seizure is over, place the victim in the recovery position and monitor. If the person does not regularly have seizures, medical help should be called for. Medical professionals will want to know how long the seizure lasted and if the person injured themselves in any way, especially their head, neck, or back.
- Frostbite: Frostbite occurs when an extremity, often fingers or toes, are exposed to cold, freezing temperatures so that ice crystals form in the tissues. The top layer of skin will first appear with grayish-white patches (called frostnip) and feel painful or numb. As the exposure continues, the freezing extends deeper into the tissue and muscles, turning the affected area blue, then white, and finally black, leading to gangrene or tissue death. Treatment involves first getting the victim under shelter and removing the wet or covering clothing. If the injury is frostnip, place the affected area against bare skin to warm up (palm of hand, armpit, or belly). If you suspect deeper frostbite, wrap the area in a warm, dry towel and get to a physician as soon as possible. If there is no chance of refreezing, warm the injured area slowly in warm water (100-105 °F), until normal color appears and it feels warm, and bandage the area loosely with dry sterile gauze between toes or fingers.
- Dehydration: Dehydration occurs when there is insufficient amount of water for the normal functioning of the body (i.e. we expel more than we take in). Initial symptoms include severe thirst, dry mouth, dark, yellow urine. A severely dehydrated victim can experience weakness, dizziness, confusion, nausea, fainting, decreased sweating and urination. Treating mild dehydration involves replenishing the body with fluids and minerals with water or sports drinks. Severe dehydrations requires emergency medical attention.
- Bruises, strains, sprains: Black and blue marks are common bruises. Keep cold, wet towel over the bruise for 30-60 minutes to help prevent more blood from leaking into the tissues. Next day apply a warm wet cloth. A Strain is an injury to a muscle due to overstretching. Apply ice pack to reduce swelling and pain. Wrap firmly with an elastic bandage to limit the swelling and to protect the injury. Stay off the injury. Good physical conditioning and proper warmup before exercise help to prevent strained muscles and tendons. A sprain is caused by twisting, wrenching, or lifting movements that tear or stretch ligament tissues around a joint. Take the weight off the injured joint and do not attempt to straighten, apply cold compresses, and treat as a fracture or broken bone.
- Burns:
 - A typical first-degree burn is a sunburn (mild pain + reddening of the affected skin).
 - A second-degree burn is a burn that raises blisters (painful).
 - Severe or third-degree burns char layers of skin & flesh (may not feel any pain)
 - Chemical burns: remove chemicals from victim's skin (don't get any on you!) flood area with cool, clean water 20 min to remove chemicals, call for emergency medical help and provide burn first-aid

- Electrical burns: remove victim from electrical source (don't endanger yourself!), call for emergency medical aide, perform CPR if needed & provide burn first-aid. First aid for mild burns, hold burn under cold running water or apply damp, cold cloths until pain eases. If there is blistering, do not break blisters! Let the injured area dry and cover it with a loose bandage. For serious burns, leave the clothing in place and cool the burn. Protect the burn area with a dry, sterile dressing, treat for shock and seek medical attention. Do not treat burns with oil based jellies, creams, greases, or sprays since they are difficult to remove and can slow the healing process.
- Abdominal pain: A stomachache is usually nothing more than a pain caused by overeating, eating too fast, or eating an odd mixture of strange or unusual foods. In rare cases, the pain could be a sign of appendicitis. Watch the person closely for increasing pain or changes in the level of consciousness. If the victim's temperature goes over 102°F or if there is signs of blood in the urine, vomit or stool, call medical emergency services. If the pain starts in the lower right quarter of the abdomen and gets worse over several hours, combined with a loss of appetite, nausea and vomiting, there is a good chance of appendicitis. If you suspect appendicitis, call emergency services immediately and don't give the person anything eat or drink.
- Broken, chipped, or loosened tooth: Gently clean. Place cold compress on face, to minimize swelling. Go to the dentist immediately with any recovered tooth pieces.
- Knocked-out tooth: Pick up tooth carefully by the crown, not by the roots. Rinse tooth gently under cold running water or milk. Do NOT scrub, scrape or allow the tooth to dry-out. Flush the wound with water or saline solution & apply pressure with a sterile gauze pad to control the bleeding. Place the tooth in a container of milk or cool water and go immediately to a dentist or emergency room within 30 minutes for treatment.
- Muscle cramps: Muscle cramps occur when a muscle contracts on its own. They usually happen when the body is fatigued or dehydrated, and muscles have not been stretched well. Muscle cramps can be minor or painful. Stretch and apply firm pressure or gently massage to help relieve the muscle spasms. Drink water or sports drink with electrolytes to help prevent future cramps.

Requirement 6

Do TWO of the following:

- *If a sick or injured person must be moved, tell how you would determine the best method.*
 - Single-Rescuer Assists (walking, ankle, drag, blanket, lifts, carries)
 - Multiple person (2-4 hand seats, chair, walk-assist, hammock carry)
- *With helpers under your supervision, improvise a stretcher and move a presumably unconscious person.*
 - Shirt, blanket & board stretchers
- *With your counselor's approval, arrange a visit with your patrol or troop to an emergency medical facility or through an American Red Cross Chapter for a demonstration of how an AED is used.*

Requirement 7

- *Teach another Scout a first-aid skill selected by your counselor.* Use the EDGE system if needed.