

Urgent medical care provided to someone who is in need of immediate assistance due to illness or injury, before qualified professional help arrives on the scene.

You may be assisting people with injuries that vary in severity. One day you might be helping someone with a paper cut, and tomorrow it could be heart attack or cardiac arrest. The most important thing is to define the situation based on the information available and proceed with medical assistance according to your training and knowledge.

#### First Aid Kit

One of the keys to performing successful first aid is a properly stocked First Aid Kit. These are readily available online or at major retailers and generally have everything necessary to perform First Aid.

Once the First Aid Kit is purchased, the personnel should be informed of the location. The location should be in the common and accessible area so everyone in need can use the supplies. Also, a procedure for regularly checking and replenishing the Kit is essential to insure that necessary supplies are available when needed.

### Sample First Aid Kit

(16) 3/4"x3" Adhesive plastic bandages
(1) 2"x4" Elbow & knee plastic bandage
(1) 1-3/4"x2" Small fingertip fabric bandage ·
(4) 2"x2" Gauze dressing pads, (2) 2-pks
(4) 3"x3" Gauze dressing pads, (2) 2-pks
(2) 4"x4" Gauze dressing pads, (1) 2-pack

(1) 5"x9" Trauma pad ·

(1) 2"x4.1 yd. Conforming gauze roll bandage ·(1) 3"x4.1 yd. Conforming gauze roll bandage

(1) Triangular sling/bandage · (1) 6"x9" Instant cold compress · (2) Exam quality gloves, 1 pair · (1) Sterile eye pad  $\cdot$ (3) Triple antibiotic ointment packs · (1) Burn relief pack, 3.5 gm · (6) Alcohol cleansing pads · (6) Antiseptic cleansing wipes (sting free) · (1) 1"x5 yd. First aid tape roll · (6) Aspirin tablets, (3) 2-pks · (1) 4-1/2'' Scissors, nickel plated  $\cdot$ (1) 4" Tweezers, plastic · (1) First aid guide

## Scene Safety

One of the critical skills for performing effective First Aid is to ensure that the scene is safe for the victim as well as everyone else present.

All precautions have to be taken prior to administering the actual First Aid. If it's a traffic accident, insure that the cars driving by are aware of the accident, signal for help from drivers, and ask them to monitor/direct traffic while you proceed with first aid.

Engage help!!!!

## Help from Others

The chances of performing successful and effective first aid increase if there is more than one person assisting in Emergency. First Aid trained professional should make every effort to locate additional help in the vicinity of the incident. These people could be deployed to call 911 or help secure the scene.

Before beginning First Aid one of the important things about administering effective First Aid is to determine when it is needed. 1. If the victim is responsive introduce yourself and offer help

2. If the victim agrees proceed with First Aid administration

3. If the victim refuses, call 911 and wait for the arrival with the victim

4. If person is unresponsive, assume that your help is needed and proceed with First Aid/CPR

Gear, which might be needed to effectively protect yourself from threats related to First Aid administration:

Gloves - to protect from blood or other bodily fluids

Eye protection - to protect from blood or other bodily fluids

Mask protection - when giving mouth to mouth protects from germs and bacteria

In case you came in contact with bodily fluids, blood or skin follow the following instructions as soon as you can:

Take the gloves off, if wearing any

Wash the area with soap (work up soap lather for 15 seconds) and water, if contact with eyes, nose, or ear rinse with water

Wash your hands thoroughly with soap, if not available use waterless hand sanitizer, and wash your hands with water later

Dry your hands with paper towel and use paper towel to close the faucet

Consult your medical provider as soon as possible

#### Burns

The first step is to determine the degree of the burn and the damage to the skin.

Burns are categorized as first-, second-, or third-degree.

First-Degree

The least serious burns, only the outer layer of skin is burned.

Skin is usually red, with swelling and painful.

Skin is dry without blisters.

Second-degree

More serious and involve the skin layers beneath the top layer.

Produce blisters, severe pain, and redness.

#### Third-degree

Most serious burn.

Painless (due to nerve damage) and involve all layers of the skin.

Burned area may be charred brown, leathery or appear dry and white.



Don't apply butter or ointments to the burn to ensure proper healing of the burned skin.

Don't break blisters to prevent infection.

Don't use ice to prevent destruction to the skin.

Don't immerse large severe burns in cold water to prevent shock.

For major burns call for emergency medical assistance. Until an emergency unit arrives, follow these steps:

Make sure the victim is no longer in contact with the burning material or exposed to smoke or heat.

Don't immerse large severe burns in cold water to prevent shock.

Check for signs of circulation and if there is no breathing or other sign of circulation, proceed with CPR.

If possible, raise the burned body part above heart level. Use a cool, moist bandage to cover the burned area.

### Fractures, Strains and Sprains

Fracture is a broken bone. There are two types of fractures:

*Closed* fractures are those in which the skin is intact

*Open*, also called compound fractures, involve wounds with mild or severe bleeding.



*Sprain* occurs as a result of stretching or tearing of ligaments.

Strain occurs as a result of stretching or tearing of muscles.

Symptoms are mild to severe pain, stiffness, swelling and/or bruising.

Generally, it is hard to differentiate fracture vs. sprained/strained, however for the purposes of first aid administration the method of treatment is the same. Therefore, when talking about sprain/strain, differ the diagnosis, and assume it can be a break, and vice versa. If someone is there, send to call for help

If the person is unresponsive, isn't breathing or isn't moving, proceed with CPR

If bleeding, stop the bleeding by applying pressure to the wound with a sterile bandage or a clean cloth

Apply a bag of ice to the injured area for up to 20 minutes, with a towel (paper or cloth) between the skin and ice

If raising the injured part does not cause more pain to the victim, attempt to raise it

If the person feels faint or is breathing in short, rapid breaths lay the person down with the head slightly lower than the trunk and, if possible, elevate the legs





## Breathing Problems and Choking

General reasons for developing mild or severe air passage block include:

Asthma

Swelling of the lining of the airway, can be related to allergic reactions (eggs, peanuts, stings by insects and bees)

Food, or small object, like medication pill, going down in to the air passage instead of stomach

Infections

Injuries to vital organs (head, stomach, etc.)

### Asthma

If the victim is developing an asthma attack, he/she might experience mild or severe breathing problems.

Usually, the person will have the necessary medication, which should relieve the symptoms quickly.

Check with the victim whether the medications are available and get it if out of reach.

# Allergies

In case of an allergic reaction, common treatment includes epinephrine, and can be injected through cloth.

Verify the expiration date prior to administering.

# Choking

When the victim is choking (older than 1 year of age) give abdominal thrusts (Heimlich Maneuver). It's not recommended for choking in infants under age 1.

These thrusts push the air out of lungs, causing an artificial cough, which will help remove the foreign body that is blocking the airway of the victim.

If the person is sitting or standing, stand behind him or her.

Form a fist with one hand and place your fist, thumb side in, just below the person's rib cage in the front.

Grab your fist with your other hand.

Keeping your arms off the person's rib cage, give four quick inward and upward thrusts.

Repeat until the obstructing object is coughed out or emergency personnel arrive.



If the person is lying down or unconscious, place the heel of your hand just above the waistline.

Place your other hand on top of this hand.

Keeping your elbows straight, give four quick upward thrusts.

Repeat this several times until the obstructing object is coughed out or emergency personnel arrives.



## Bleeding, Cuts and Scrapes

When dealing with bleeding wound, Priority #1 is to stop the bleeding.

Maintain composure, no need to panic

In most cases, bleeding can be stopped by applying pressure to the wound

Bleeding generally looks much worse, than it really is. If the bleeding is not stopping, apply clean cloth or bandage to the wound for 15 to 30 minutes with reasonable amount of pressure. Make sure the cloth stays in place and is not moved during that time, as movement can re-aggravate the wound and cause bleeding to resume.

If the bleeding persists, apply the second dressing to the wound and increase the pressure. As mentioned above, you can control or stop the bleeding in majority of the cases with pressure alone.

Priority #2 is to keep the wound clean. This will minimize the chance of the victim getting an infection. If water source and soap is available, wash the wound. If not, and there is visible debris, extract it with your hands or tweezers. Contact emergency services if the bleeding has not stopped or you suspect potential for infection or internal injuries (fractures, brakes, head injury, etc.)

For small wounds and scrapes it is generally advised to use triple antibiotic ointment, which is the best in preventing infections. First aid steps:

Involve the victim, if able, to apply pressure on the wound while you are putting on protective equipment or taking care of other wounds

Stop the bleeding by applying pressure to the wound with dressing

If not effective, apply second dressing and attempt to increase the pressure on the wound

Contact emergency services, unless the wound is minor or you are confident there is no need for further intervention

## Non-Bleeding Wounds

Wounds that do not cause bleeding should be treated with as much and probably more attention than the wounds that do bleed. *The danger here is that the damage cannot be clearly assessed*.

As a first aid administrator you should be looking for signs of internal damage, like internal bleeding, internal tissue or organ damage, etc. For example, a blow to the head might not show any exterior signs of distress, not even a bruise, but the victim might be experiencing a life threatening condition because of internal bleeding. *If misdiagnosed, the consequences can be catastrophic*. Injuries where you should suspect internal injury:

Car crashes, even when the impact/damage is minor Shock signs after the injury, even with no signs of any exterior damage

Injury via collision, generally sustained in sports, especially if there is a loss of consciousness

Injury to abdominal or pain in abdominal

Injury to the chest or pain in the chest

Blood discharge after the injury

Firearm or knife wounds
When faced with the victim that you suspect has a nonbleeding injury follow the following steps:

Contact emergency services

Put the victim in the horizontal position on his back

Make sure the victim does not move

Check for signs of shock

If the victim does not respond start CPR

## Nose Bleeds

Nosebleeds in majority of cases (more than 90%) tend to be benign and can be easily stopped with simple steps that we will outline a little later.

Condition is caused by rupture of blood vessel in the nasal septum. However, in certain cases nosebleed is a much more serious event and can indicate life threatening or serious condition. These are relatively rare and usually occur with elderly. These nosebleeds generally originate in the artery located in the back part of the nose, and are much more complicated to treat. Steps to follow if dealing with common nosebleed:

Have the victim sit in upright position

Pinch victim's nose with thumb and index finger, and hold it for about 10 minutes, this generally applies enough pressure to the septum to stop the bleeding

To prevent reoccurrence, advise the victim to avoid picking or blowing the nose, until the bleeding stopped for a couple of hours, and also avoid bending. If bleeding re-occurs, blow the nose with force to clear out the remaining blood clots, and repeat the pinching procedure described above. It is recommended for the victim to contact a physician for consultation.

Contact emergency services immediately:

If bleeding persisted uncontrollably for more than 15 minutes

If the bleeding is the result of an injury, where there is a potential for broken nose

## Head, Neck and Spine Injury

If the injury to the head occurs there is always a risk of brain damage.

If there is a risk of head injury then there is also a risk of spine injury and neck injury.

You should suspect a head, neck or spine injury in case of the following accidents:

Car or motorcycle accident, even minor bump can cause internal head injury

Fall from height

Injury to the head, fight, sporting event, etc.

Electrocution

You should suspect a head, neck or spine injury if the symptoms below follow the accident:

Lack of responsiveness or moaning

Vision problems or confusion

Trouble walking or moving

Seizures, Vomiting, or Headache

Administering First Aid:

As always, make sure the scene is safe for you and the victim(s)

Phone or ask someone to phone 911

Hold the neck and head so it does not move, twists, or bend

Turn the victim only if: \*victim is in danger, \*if you need to check if the victim is breathing, \*if the victim is vomiting

If the victim does not respond, begin CPR

*Important:* If you must turn, make sure you are holding the head and neck in place to avoid/minimize movement, twisting or bending. Ideally, this requires two rescuers.

# Shock

Shock may result from trauma, heatstroke, blood loss, an allergic reaction, severe infection, poisoning, severe burns or other causes.

When a person is in shock, his or her organs aren't getting enough blood or oxygen.

If untreated, this can lead to permanent organ damage or even death.

Signs and symptoms of shock vary depending on circumstances and may include:

Cool, clammy skin Pale or ashen skin Rapid pulse Rapid breathing Nausea or vomiting Enlarged pupils Weakness or fatigue Dizziness or fainting Changes in mental status or behavior, such as anxiousness or agitation

Seek emergency medical care. If you suspect a person is in shock, call 911 or your local emergency number.

Then immediately take the following steps:

Lay the person down and elevate the legs and feet slightly, unless you think this may cause pain or further injury.

Keep the person still and don't move him or her unless necessary.

Begin CPR if the person shows no signs of life, such as breathing, coughing or movement.

Loosen tight clothing and, if needed, cover the person with a blanket to prevent chilling.

Don't let the person eat or drink anything.

If the person vomits or begins bleeding from the mouth, turn him or her onto a side to prevent choking, unless you suspect a spinal injury.

### Remember....

First Aid Kit content is explained in the First Aid Guide, which is included in the Kit.

Your chances of performing successful First Aid increase dramatically if more than one person is involved. Be sure to seek assistance from bystanders, even if they are not certified.

If the victim refuses first aid, call 911 and stay with the victim until help arrives.

Key recommendation is when you come in contact with bodily fluids, skin, or blood be sure to tell your supervisor and contact your doctor as soon as possible.

If the victim sustained broken bone or strain, you can raise the injured body part as long as it does not increase the level of pain.

Heimlich maneuver is used to remove foreign body, which is blocking the airway. Upward thrusts are performed until the item is forced out or emergency services arrive to the scene. Three types of burns, 1st, 2nd, and 3rd degree. In case of third degree burn, do not remove clothing or apply water or fluids to the wound, but rather concentrate on getting the victim to the hospital as soon as possible or call 911. If the victim suffered electrical burn, make sure he/she contacts a doctor as soon as possible.

In case of bleeding wound, first apply pressure; second, keep the wound clean to minimize chances of infection.

Non bleeding wounds should be treated extra carefully, because it is hard, if not impossible, to assess damage with naked eye.

If treating internal injury, place victim on his back, horizontally, and do not allow victim to move.



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