



FIRST AID MANUAL



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FIRST AID PROVIDER

Accidents and injuries can happen at anytime and anywhere so it is important to be prepared.

In this course you will learn to recognize, assess, and treat common first aid injuries.

You are the first link in the chain of survival so it is important you do what you can to help and that you make sure advanced care professionals are contacted.

With any serious injury or illness you must always call 911. This will allow advanced responders to take over the scene and relieve you of the situation.

ATTENDING TO VICTIMS

- Before you ever attempt to help a victim you must make sure the scene is safe.
- Check surroundings to make sure you are safe to proceed to the victim. Don't become a victim yourself.
- If the scene is unsafe you must call 911. DO NOT enter the scene unless it becomes safe to enter.
- Examples of unsafe scenes: fire, poisonous gasses, electrical hazards, traffic, sharp glass or objects, or an active shooter.

STANDARD PRECAUTIONS

- It is recommend to treat all bodily fluid as infectious. In order to help protect yourself, (PPE) Personal Protective Equipment should be used. Examples of PPE include goggles, gowns, face masks, etc.
- Gloves are the most common PPE available.
- To remove gloves: With one gloved hand grab the other glove at the palm and peel the glove off. Keep hold of that glove in the gloved hand. Use your clean finger or fingers of the exposed hand to slide under the edge of the glove at the wrist and peel that glove off.
- Gloves do fail so it is Very Important that you still wash your hands!

LIABILITY FOR HELPING

- All states have passed Good Samaritan Laws to help protect responders like you so that you can help a victim in need without the concern for legal liability.
- You must have consent to help a responsive victim. If a victim is unconscious or unresponsive to your request to offer help it is considered implied consent and you may help them.
- These laws help protect anyone who:
 - Voluntarily provides assistance without expecting compensation
 - Is reasonably careful
 - Does not provide care beyond skill level
 - Gains consent from the victim (written, implied, verbal)

PRIMARY ASSESSMENT

- You must initially check a victim to try to identify if it is a possible life threatening situation.
- Make sure the scene is safe and only if it is safe, proceed to the victim
- Check for response by gently tapping or shaking the victims shoulders or by forcefully rubbing your knuckles up and down on the sternum while yelling something like “are you okay?”. If no response, you must call 911.
- If the victim is unresponsive you should check for breathing for 5-10 seconds. If the victim is not breathing or only gasping or if you are uncertain, perform CPR. If you do not know CPR you should push down forcefully on the center of the victims chest between the nipples. On the first few compressions you will hear popping as you dislocate the sternum, and gasping as you force air out of the victims body. Do not be alarmed as this is normal. Continue to push down until you cannot push any deeper and push fast at the rate of 100-120 compressions per minute.
- To help you can count 1 and 2 and 3 and 4 and....to set the pace! Attach an AED if you have access to one. The AED will walk you through the steps of using it when you turn it on.
- If the victim is breathing you may put them in the Recovery Position.

RECOVERY POSITION

- You may want to put a victim in the recovery position if they have fluid coming out of the mouth or nose. This will help eliminate fluid from blocking or entering the airway.
- You should put the victim in this position if you must leave them to activate EMS, and call 911.

PRIMARY ASSESSMENT FOR RESPONSIVE VICTIM

- Make sure the scene is safe and only if it is safe, proceed to the victim.
- Tell the person your name, that you are trained in first aid, and that you are going to help. If the person does not want your help you cannot legally help them, but if you are unsure about the severity of the situation you should call 911!

Check the victim for the following:

- 1- Altered mental status
- 2- Breathing Difficulty
- 3- Skin color (Pale, Hives, etc.)
4. Bleeding
- 5- Deformities (Broken Bones)
- 6- Swelling

*If bleeding is found you must immediately try to control it! We will cover bleeding control procedures later.

SECONDARY ASSESSMENT FOR RESPONSIVE VICTIM

- When your primary assessment does not find any life threatening issues you may perform a secondary assessment. A secondary assessment is a visual and physical assessment where you look and feel to locate injuries on the victims body.
- You must gain consent to perform a physical assessment. You should gently assess from head to toe on an adult, and for a child you should assess from toes to head in order to gain their trust.

Things to look for: D.O.T.S

- Deformities- limbs of the body that are bent or twisted
- Open Injuries- bleeding
- Tenderness- painful areas
- Swelling- swollen and discolored areas on the body
- Be very gentle with the victim as to not cause further damage to injuries that may be found during your physical assessment.
- Look around the area to see if you notice anything that might indicate what happened to the victim. Medication or drug bottles, alcohol bottles, a wrecked bicycle, etc. Look at the victims body to see if they have a medical alert bracelet or necklace.

S.A.M.P.L.E

If the victim is responsive you should try to gain information from them that can help expedite the process of advanced care. Use S.A.M.P.L.E to gain pertinent information to give dispatch and/or advanced responders.

S- Signs and Symptoms

A- Allergies

M- Medication

P- Past Medical Issues

L- Last Oral Intake

E- Events Leading to Issue

SHOCK

- Shock occurs when there is poor blood flow to body tissue. If untreated shock can become life threatening.
- Signs of shock include: confusion, and/or skin turning pale, cool, and sweaty.
- Treatment for shock includes keeping the victims airway open and controlling any bleeding. Keep the victim as comfortable and calm as possible, and keep them warm.

Shock can be caused by:

- Physical Trauma- injuries to the victims body
- Mental Trauma- hearing about or seeing a traumatic incident

***Children: If they are uninjured you should remove children from viewing a traumatic scene as it can cause mental trauma (PTSD post traumatic stress disorder).

BLEEDING CONTROL

- Most bleeding can be controlled with the standard method of direct pressure.
- In severe cases where bleeding cannot be controlled with direct pressure and elevation you may need to apply a tourniquet.
- Commercial tourniquets are very effective and recommended over a makeshift tourniquet.
- Tighten a tourniquet about 2 inches above the wound to get the wound to stop bleeding.
- You may need to use a tourniquet in a scene where you cannot stay with the victim. The tourniquet will apply pressure for them.
- Example: If a tourniquet is going to be used, try to document the time it was applied. Do not remove or loosen unless directed by a qualified medical professional.

AMPUTATION

What to do with an amputation:

- Control the bleeding with pressure and elevation. Apply a tourniquet if needed.
- Treat for shock
- Recover the amputated limb if possible and give it to emergency care providers

How to treat an amputated limb:

- Wrap with dry sterile gauze or clean cloth
- Put limb in plastic bag or other waterproof container
- Keep the amputated part cool by placing that bag in a container or in another bag with ice, but DO NOT FREEZE

Seek medical attention!

IMPALED OBJECT

- Do not remove an impaled object as it may cause further damage or it may be preventing or blocking serious bleeding.
- Immobilize the affected area of the body to hinder further damage. Provide gentle pressure around the object with gauze to help control movement of the object and bleeding from the area.

Impaled object in the eye:

- Do not remove the object
- Do not let the victim rub the eye
- Stabilize the object using something like a paper cup
- Cover both eyes (the eyes move together so covering both eyes creates a neutral gaze)

Get professional help.

Open Chest Wound:

- A puncture wound to the chest can hinder the lungs ability to draw in air
- Check to see if there is an exit wound. An exit wound is the location where a penetrating object has gone through the body and comes out.
- Treat the more serious wound first
- Do not seal both wounds
- If sealed there may be raised pressure in the chest which could quickly become life threatening
- If the victim stops breathing you must provide CPR

Open Abdominal Wound:

- If abdominal organs are protruding you must try to protect these functional organs
- Allow the person to carefully move into a position of most comfort
- Cover protruding organs with sterile dressing (dressing must be moist to avoid sticking to organs)
- Do not try to push the organs back into the body
- Do not apply pressure directly on the organs

NECK, SPINE, AND BACK INJURY

Neck, spine, and back injuries are often caused by impact to the body such as falls, car accidents, etc.

Signs of Back/Spine injuries include:

- Sensations of numbness
- Burning in the arms, hands, legs, or feet

****A lack of obvious symptoms does not mean there is not a serious injury.**

- You should assume that the injury may be severe and try to stabilize the head to avoid spinal movement. Contact EMS!

Establishing an open airway for a victim with suspected head, neck, or spinal injury is of more importance than minimizing movement.

- This means if the victim is having trouble breathing or if they are in a position that can potentially hinder breathing and circulation you must move them to align the head, neck, and spine and open the airway!

Whenever you move a victim it is important to move them as carefully as possible to avoid further injury. Use teamwork if possible.

HEAD AND BRAIN INJURY

- Impact to the head can cause brain injury from bruising and swelling. Suspect serious brain injury when a blow to the head causes a diminished level in responsiveness.
- If there is blood or fluid coming from the nose or ears you should NOT stop that fluid from exiting.
- If the victim begins to seizure you should protect the head as best as you can. Cushion the head but do not hold it down as this can cause neck and spinal injury. Assess the victim for breathing after the seizure ends. Perform CPR if needed.
- Because of the progressive nature of a concussion it is best to have the person be evaluated by a healthcare professional or emergency responders immediately!
- **WARNING!** Do not let the person operate any heavy equipment such as a vehicle!

DEFORMITIES

Swollen, Painful, or Deformed Limbs:

- Immobilize the limb to avoid movement
- You should try to keep the victim still and treat for shock
- Call for EMS if needed.
- If the victim wants to move you should brace, bandage, or provide a sling to help keep the limb from moving
- Seek medical attention
- Do not try to straighten the limb as this could cause further injury. If there is a protruding bone you may gently apply gauze around the bone to help with bleeding.
- Do not apply firm pressure to the open wound and do not try to put the bone back in the body.

BURNS

Thermal burns are typically caused by hot liquid coming into contact with the skin or too much exposure to sunlight. Typically these are mild burns and require minimal care. Burns can be caused by heat, chemicals, or electricity. If a victim has clothing on fire tell them to stop, drop, and roll. This will help smother the flames. You may pour or spray water on them to put out the fire and cool the burn. Carefully remove clothing to expose the burn.

****Do not remove clothing if it is stuck to the skin.**

Cool the burn by using cool/cold running water for at least 10minutes.

Prevention is key!

Be careful to check the temperature of the water before bathing a child or infant.

Make sure they cannot reach handles of pots and pans on the stove, have covers over electrical outlets, etc.

Seek medical attention if you are uncertain concerning the seriousness of the burn. Area of skin burned, depth of burn, and degree of burn are all factors.

Chemical Burns

- If chemical powder is on the skin you should try to brush it off using gloved hands, cloth, or towel while making sure not to spread the chemical to other areas of the victims body or your body.
- As with other burns you should cool the burn with running cool/cold water. Do this for at least 15 minutes or longer to alleviate pain and burning.
- Cover with a dry/sterile dressing and seek medical attention.

Electrical Burns

- Make sure the scene is safe so you do not get shocked also. If the victim has stopped breathing you should perform CPR and attach an AED if you have one.
- If the victim is conscious you can look for areas they may be burned from the contact and cool the burn just as you would a thermal burn.
- Seek medical attention as there may be internal injuries from the shock.

CHEMICALS IN THE EYE

- Corrosive chemicals in the eye can damage eye tissue. Either you or someone nearby should call EMS.
- You should immediately hold open the affected eye or eyes and flush with water for 15 minutes or until help arrives.
- If only one eye is affected be careful not to flush chemicals from that eye into the other eye. If flushing under the faucet keep the affected eye below the non-affected eye.

NOSE BLEED

- Have the person sit down and pinch the soft tissue of the nose and tilt the head slightly forward.
- Have the person spit out any excess blood that starts to drain into the mouth or throat. Do not swallow the blood as this can cause nausea and vomiting.
- If the bleeding continues beyond 10 minutes it is recommended to seek medical attention.
- Use your judgment: If the victim is anemic, on blood thinners, or if the nosebleed seems very severe or you believe the nose may be broken, you should seek medical attention immediately!

TOOTH INJURY

- If a person receives a blow to the mouth and has a broken, dislocated, or knocked out tooth you should immediately contact your dentist, or an emergency dentist for care.
- Have the victim gently bite down on gauze over the bleeding socket.
- If the tooth has come out try not to touch the root.
- Have the victim spit in a cup and put the tooth in it to keep the tooth moist. This can help keep the tooth alive.
- Avoid rinsing or putting the tooth in water.

FAINTING

Fainting can be caused by many different things:

- Standing after bending, squatting, standing in place too long, pain, or stress.
- Fainting is not always serious or life threatening.
- If someone tells you they are light headed or they have narrowing vision you should quickly lay the person down on their back, and elevate their feet 6 to 12 inches.
- These feelings will typically pass quickly allowing the person to continue daily activities.
- If the situation worsens you must seek medical attention

HYPOGLYCEMIA/DIABETES

- Diabetes or Hypoglycemia is a very common medical condition. You may recognize symptoms such as odd behavior or confusion. They may have pale, cool, and sweaty skin.
- There may be more severe symptoms such as the victim becoming lethargic, dizzy, or losing consciousness. Make sure EMS has been activated.
- You may notice a medical bracelet or necklace notifying you of their condition. If they are able to ingest it you can give them a glucose tablet or sugar such as a non-diet soda or fruit juice which might help.
- Do not let this delay activating EMS as symptoms can quickly worsen.

HEART ATTACK

- Symptoms may include: shortness of breath, chest pain/pressure, arm pain, or back pain. Skin may become pale, cool, and sweaty. The victim may be fatigued, weak, or nauseous.
- Do not take the victim to the hospital yourself.

Activate EMS! Get an AED if possible to have on stand-by.

If they are able to ingest it and are not allergic to aspirin you should have the victim chew and swallow one adult aspirin.

STROKE

Strokes can be caused by a blood clot or from a bursting blood vessel in the brain.

- If someone is having a stroke: activate EMS, stay with the victim and treat for shock, and be prepared to start CPR if needed.
- Do not give any blood thinning medication such as aspirin to a victim with a possible stroke as they may have bleeding in the brain and this would make it worse.

The FAST acronym that can help you identify the warning signs of a stroke is found below:

F- facial droop

A- arm paralysis

S- slurred speech

T- time sensitive. Seek medical attention!

SEIZURE

- Excessive electrical activity in the brain leads to involuntary muscle convulsions. The victim may lose bowel control or might vomit. Unless you know the victim and know their specific protocol for seizures you should have someone activate EMS and get an AED.
- Help the victim to the ground if possible. Make sure the head, neck, and spine are aligned to help maintain breathing. Move anything away from the victim that could cause further injury. Cushion the head to avoid further injury.
- If possible lay the victim on their side in the recovery position to allow saliva or fluid to drain from the mouth. If the victim begins to vomit you must roll them on their side to avoid aspiration (fluid entering the lungs).
- Do not pin the victim down.
- Do not put anything in the mouth.
- Do not try to force open the airway.
- Do not try to hold the tongue from blocking the airway.

SEVERE ALLERGIC REACTION

- Severe allergic reactions, also known as anaphylaxis can be caused by many things.
- Here are a few common allergens: bee stings, shell fish, or peanuts (or other common food allergies).
- Signs and symptoms may include swelling of the airway, face, eyelids, and the site of the sting or bite if the victim was stung or bitten. Severe allergic reactions can be life threatening if the airway becomes closed.

Treatment:

- Call 911.
- If available, give the victim Epinephrine using their prescription auto injector. If the initial dose of epinephrine wears off and help is still at least 5-10 minutes away, you may give a second dose if available.
- If the first dose of epinephrine is not effective you may give a second dose if available.

MARINE ANIMAL STINGS

Jellyfish stings cause severe pain for the victim.

- Treatment: rinse the area with vinegar for 30 seconds. Then shower or put the area in hot water for at least 20 minutes to reduce pain.

Stingrays have a venomous tail that can cause severe pain.

- Treatment: immersion of the area in hot water for 30-90 minutes can relieve the pain. Clean out the site of the wound with soap and water.

WARNING: If severe reactions occur such as trouble breathing or heart palpitation you must CALL 911!

BEE STINGS

- If you are stung by a bee you should scrape the stinger away from the skin if it is still attached by using something like a credit card or finger nail.
- DO NOT pinch or grab the stinger as it may push more venom into the body. If the victim is allergic you must call 911 and give them their EpiPen.

POISONOUS SNAKE BITE

- If a person receives a poisonous snake bite or you are not sure if it is a poisonous snake bite you should do the following:
- Call 911.
- Keep the victim calm and comfortable and sit them down to slow down the heart rate and spread of the poison.
- Do not elevate the area but instead keep it below heart level.
- **WARNING!** Do not try to suck out the venom with your mouth!

POISONOUS SPIDER BITE

Symptoms:

- There may be small puncture marks at the site of the bite.
- There may be tenderness and swelling at the site of the bite.
- Cramping may occur.

Treatment:

- Keep the victim calm and comfortable.
- Keep the site of the bite below heart level.
- If the symptoms continue to worsen or the victim experiences weakness, nausea or vomiting, or has trouble breathing: CALL 911

ANIMAL BITES

- Wash the area with soap and water and treat for bleeding.
- Due to the high possibility of infection have the victim seek medical attention if the skin is punctured.

TICKS

Ticks can carry disease.

- To remove a tick you should grab the tick at the base of the skin with tweezers and pull with slow but continuous pressure. The skin may tense upward. Soon the tick should let go.
- Clean the area with soap and water.
- If the person begins to experience flu like symptoms you should seek medical attention.
- If you cannot get the tick out or part of the tick tears away and is left embedded in the body you should seek medical attention.

POISONING

- If you suspect someone has ingested or inhaled poison and they are displaying serious signs and symptoms call 911.
- Signs and symptoms can include stomach pain or trouble breathing. Suspect poisoning if there is poisonous gas being released, open containers of chemicals or medication, and/or signs of drug use such as needles or other drug paraphernalia near by.
- Do not administer anything orally and do not induce vomiting unless directed by the 911 dispatcher or poison control center dispatcher.
- Keep the person calm and still.
- Continue to monitor the victim and let dispatch know of any changes that occur for better or worse. If the victim is not displaying any serious signs or symptoms you may call Poison Control at 1-800-222-1222. If you do not remember this number call 911!

SEVERE ABDOMINAL PAIN

- Severe abdominal pain may be a sign of serious internal injury or illness.
- Suspect severe abdominal injury if the person received any sort of hard impact to the abdomen from something such as a fall or being hit in the abdomen.
- The victim may become nauseous and vomit.
- Call 911!
- Keep the person calm and in a comfortable position.

COLD RELATED EMERGENCIES

Hypothermia

- Signs and Symptoms: Feeling of being very cold or possibly not feeling cold any longer, shivering, loss of coordination, Heart rate may decrease as well as breathing.

Treatment:

- Remove wet clothing even if it is only base layers that are wet due to sweating.
- Provide dry blankets or clothing. Slowly move the victim to a warm environment.
- Give the victim something warm to drink.

WARNING! Do not give the victim warm liquids containing caffeine or alcohol. Call 911 and get an AED incase cardiac arrest occurs

FROSTBITE

Signs and symptoms: Skin that is cold, pale, firm, or numb.

Treatment:

- Remove wet clothing, place dry sterile dressing between frostbitten fingers and/or toes.
- Wrap frostbitten area with clean cloth.
- WARNING! Do not rub the frostbitten area as it may damage the tissue
- Call 911

HEAT RELATED EMERGENCIES

Heat Exhaustion and Heat Stroke

- Signs and symptoms of heat exhaustion:
- Feeling of exhaustion, headache, nausea/vomiting, and heat cramps.
- Signs and symptoms of heat stroke: skin is very hot to the touch, heavy sweating, or the skin becomes dry and red. There might also be disorientation and confusion. The person may become unresponsive or have a seizure.

Treatment Guidelines for Overheating:

- Have the person rest in a cool/shaded area, remove excess clothing, put cold compresses on the back of the neck, armpits, groin and bottom of feet.
- Spray the person with water, and have a fan blow air on them. Have them drink cold liquids.
- For heat cramps you may stretch the effected area and apply pressure.
- WARNING! Do not have the victim drink liquids containing caffeine or alcohol. If the persons symptoms continue to get worse call 911.
- For any symptoms of Heat Stroke call 911 immediately!

ADULT OR CHILD SEVERE CHOKING

- To relieve a severe choking obstruction in a child or adult you should stand behind them and brace yourself with one leg between their legs.
- Put your fist just above their belly button and grab that fist with your other hand and forcefully pull the fist into their abdomen with a slight upward motion. Do this until the obstruction comes out.
- If the victim becomes unconscious you must slide them to the ground, call 911, have someone get an AED, and then begin CPR.
- If the victim is pregnant or you cannot reach around their abdomen you may perform chest thrusts. Brace yourself behind the victim with one leg between their legs. Put the fist of one hand between their nipple line on the center of their chest and pull straight in forcefully to expel the obstruction. If the victim becomes unconscious you must slide them to the ground, call 911, have someone get an AED, and then begin CPR.

NOTE: If an adult is hacking or coughing that is mild choking, and you will continue to let them work on that themselves. If they start choking severely and there is no air exchange you need to take action.

INFANT CHOKING

- To relieve severe choking in an infant you should perform 5 back blows followed by 5 chest thrusts until the object is expelled.
- If the infant becomes unconscious you should put them on a flat hard surface and begin CPR. Call 911 and have someone get an AED.
- NOTE: If an infant or child is hacking or coughing that is mild choking, and you will continue to let them work on that themselves. If they start choking severely and there is no air exchange you need to take action.