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Basic Steps of First Aid

This quick primer on common basic first aid procedures can help get you through a minor crisis, at least until the paramedics arrive or you can get to medical treatment. These tips are based on the 2019 first aid procedures recommended by the American Heart Association and American Red Cross.[1] They are not a substitute for proper first aid training but can be an introduction to what you can do.

Basic First Aid for Cardiac Arrest

Cardiopulmonary resuscitation (CPR) is the most important medical procedure of all. If a person is in cardiac arrest (the heart is no longer pumping blood) and CPR is not performed, that person will die. On the other hand, performing CPR or using an automated external defibrillator (AED) could save a life.[2]

You can start by reviewing the basics of CPR. The procedure has changed in the past few years, so it is best to take a CPR class at a medical center, community college, Red Cross, or fire department. There is no substitute for a hands-on class.

AEDs are available in many public areas and businesses. These devices are simplified for use even if you have never been trained. CPR training will include familiarization with AED use.

According to the American Heart Association and American Red Cross 2019 guidelines, the steps to take when a cardiac arrest is suspected are:[1]

- Command someone to call 911 or the medical alert system for the locale.
- Immediately start chest compressions regardless of your training. Compress hard and fast in the center of the chest, allowing recoil between compressions. Hand this task over to those who are trained if and when they arrive.
- If you are trained, use chest compressions and rescue breathing.
- An AED should be applied and used. But it is essential not to delay chest compressions, so finding one should be commanded to someone else while you are doing chest compressions.

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Basic First Aid for Bleeding

Regardless of how severe, almost all bleeding can be controlled. Mild bleeding will usually stop on its own. If severe bleeding is not controlled, it may lead to shock and eventually death.[3]

There are steps to take if you are faced with bleeding right now.

- Cover the wound with a gauze or a cloth and apply direct pressure to stop the blood flow. Don't remove the cloth. Add more layers if needed. The cloth will help clots form to stop the flow.

- In most cases, applying a tourniquet may do more damage to the limb than good. The 2010 American Heart Association guidelines also discount the value of elevation and using pressure points.

Basic First Aid for Burns

The first step to treating a burn is to stop the burning process.[4] Chemicals need to be cleaned off. Electricity needs to be turned off. Heat needs to be cooled down with running water. Sunburn victims need to be covered up or go inside. No matter what caused the burns or how bad they are, stopping the burn comes before treating the burn.

The severity of a burn is based on depth and size. For serious burns, you might need to see a doctor or call 911.

Take these first aid steps:

- Flush the burned area with cool running water for several minutes. Do not use ice.[5]
- Apply a light gauze bandage.
- Do not apply ointments, butter, or oily remedies to the burn.
- Take ibuprofen or acetaminophen for pain relief if necessary.
- Do not break any blisters that may have formed.[6]

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Basic First Aid for Blisters

Whether or not a blister needs any treatment is debatable. If the blister is small, unbroken and not very painful, it is probably best to leave it alone. Cover it to prevent continued rubbing and pressure on it that can cause it to swell more and possibly burst on its own.

If the blister is large or painful—especially if the activity isn't finished (such as you are in the middle of a hike)—follow steps to drain and dress a blister.[7] Use a sterilized needle and make small punctures at the edge of the blister and express the fluid. Then apply antibiotic ointment and cover it to protect it from further rubbing and pressure.

Basic First Aid for Fractures

All extremity injuries need to be treated as broken bones (fractures) until an X-ray can be obtained.

There are all kinds of broken bone myths, such as not being able to walk on a broken leg or whether there's a difference between a fracture and a break.[8] If you don't have Superman's X-ray eyes, treat it like it's broken. Take these steps for a suspected fracture:

- Don't try to straighten it.
- Stabilize the limb using a splint and padding to keep it immobile.
- Put a cold pack on the injury, avoiding placing ice directly on the skin.
- Elevate the extremity.
- Give anti-inflammatory drugs like ibuprofen or naproxen.

Basic First Aid for Sprains

The symptoms of a sprain are almost exactly the same as that of a broken bone. When in doubt, first aid for sprains should be the same as broken bones. Immobilize the limb, apply a cold pack, elevate it, and take anti-inflammatory drugs.[9] See your doctor for further diagnosis and treatment.

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Basic First Aid for Nosebleeds

Most of us have had a bloody nose at some time in our lives. It simply means bleeding from the inside of the nose due to trauma.

The biggest cause of a nosebleed is digital trauma – otherwise known as picking it.

The first aid for nosebleed includes:[10]

- Lean forward, not back.
- Pinch the nose just below the bridge. Don't pinch the nostrils closed by pinching lower.
- Check after five minutes to see if bleeding has stopped. If not, continue pinching and check after another 10 minutes.
- You can also apply a cold pack to the bridge of the nose while pinching.

Basic First Aid for Frostbite

Frostbite occurs when the body's tissues freeze deeply in the cold.[11] Ice crystals that form in the tissues cause damage to the cells. This is the opposite of a burn, but it does almost identical damage to the skin.

Treating frostbite is a delicate procedure of gradual warming.[12] If at all possible, this should be done by professionals at a medical facility. First, get out of the cold. Small areas of minor frostbite may be rewarmed by skin-to-skin contact, but avoid using any heat sources or hot packs.

If you can't make it to a medical facility, use immersion of the affected area in warm water (98 to 105 F) for 20 to 30 minutes to rewarm it. Do not rub the affected area or use heat sources.

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Basic First Aid for Bee Stings

Bee stings are either annoyingly painful or deadly, depending on if the victim is allergic to the venom. Use these bee sting first aid tips:[13]

- Get the stinger out any way you can to prevent more venom being delivered. It's a myth that any particular way is better or worse.
- If the person is known to be allergic to bee stings, use an EpiPen to prevent anaphylaxis or call 911 if none is available.
- Use a cold pack to reduce swelling at the site, but take care not to cause frostbite.
- Use an antihistamine like Benadryl (diphenhydramine) to reduce swelling and itching.
- Try ibuprofen or Tylenol (acetaminophen) for pain.
- Monitor the person who was stung by signs of anaphylaxis, including hives, redness or itching in other areas of the body, and shortness of breath.

Basic First Aid for Jellyfish Stings

The problem with jellyfish is that they sneak up on their victims. Swimmers are cruising along in the ocean one minute, and feeling the sting of the jellyfish the next. Takes these first aid steps for jellyfish stings.[14]

- Rinse the area of the sting generously with vinegar for at least 30 seconds. If you don't have vinegar available, use a baking soda slurry instead.
- Immerse the affected area in hot water, as hot as the person can tolerate, for at least 20 minutes or until the pain goes away. If hot water isn't available, use dry hot packs. If those aren't available, use dry cold packs. Other methods to relieve pain are less effective (such as urine, fresh water wash, papain or meat tenderizer).
- Do not use a pressure bandage.