It is very important for you to get immediate treatment for every injury, regardless how small you may think it is. Many cases have been reported where a small unimportant injury, such as a splinter wound or a puncture wound, quickly led to an infection, threatening the health and limb of the employee. Even the smallest scratch is large enough for dangerous germs to enter, and in large bruises or deep cuts, germs come in by the millions. Immediate examination and treatment is necessary for every injury.

What is first aid? It is simply those things you can do for the victim before medical help arrives. The most important procedures are described below.

#### CONTROL BLEEDING WITH PRESSURE

Bleeding is the most visible result of an injury. Each of us has between five and six quarts of blood in our body. Most people can lose a small amount of blood with no problem, but if a quart or more is quickly lost, it could lead to shock and/or death. One of the best ways to treat bleeding is to place a clean cloth on the wound and apply pressure with the palm of your hand until the bleeding stops. You should also elevate the wound above the victim's heart, if possible, to slow down the bleeding at the wound site. Once the bleeding stops, do not try to remove the cloth that is against the open wound as it could disturb the blood clotting and restart the bleeding. If the bleeding is very serious, apply pressure to the nearest major pressure point, located either on the inside of the upper arm between the shoulder and elbow, or in the groin area where the leg joins the body. Direct pressure is better than a pressure point or a tourniquet because direct pressure stops blood circulation only at the wound. Only use the pressure points if elevation and direct pressure haven't controlled the bleeding. Never use a tourniquet (a device, such as a bandage twisted tight with a stick, to control the flow of blood) except in response to an extreme emergency, such as a severed arm or leg. Tourniquets can damage nerves and blood vessels and can cause the victim to lose an arm or leg.

## TREAT PHYSICAL SHOCK QUICKLY

Shock can threaten the life of the victim of an injury if it is not treated quickly. Even if the injury doesn't directly cause death, the victim can go into shock and die. Shock occurs when the body's important functions are threatened by not getting enough blood or when the major organs and tissues don't receive enough oxygen. Some of the symptoms of shock are a pale or bluish skin color that is cold to the touch, vomiting, dull and sunken eyes, and unusual thirst. Shock requires medical treatment to be reversed, so all you can do is prevent it from getting worse. You can maintain an open airway for breathing, control any obvious bleeding and elevate the legs about 12 inches unless an injury makes it impossible. You can also prevent the loss of body heat by covering the victim (over and under) with blankets. Don't give the victim anything to eat or drink because this may cause vomiting. Generally, keep the victim lying flat on the back.

A victim who is unconscious or bleeding from the mouth should lie on one side so breathing is easier. Stay with the victim until medical help arrives.

MOVE THE INJURED PERSON ONLY WHEN ABSOLUTELY NECESSARY

Never move an injured person unless there is a fire or when explosives are involved. The major concern with moving an injured person is making the injury worse, which is especially true with spinal cord injuries. If you must move an injured person, try to drag him or her by the clothing around the neck or shoulder area. If possible, drag the person onto a blanket or large cloth and then drag the blanket.

#### PERFORM THE HEIMLICH MANEUVER ON CHOKING VICTIMS

Ask the victim to cough, speak, or breathe. If the victim can do none of these things, stand behind the victim and locate the bottom rib with your hand. Move your hand across the abdomen to the area above the navel then make a fist and place your thumb side on the stomach. Place your other hand over your fist and press into the victim's stomach with a quick upward thrust until the food is dislodged.

#### FLUSH BURNS IMMEDIATELY WITH WATER

There are a many different types of burns. They can be thermal burns, chemical burns, electrical burns or contact burns. Each of the burns can occur in a different way, but treatment for them is very similar. For thermal, chemical or contact burns, the first step is to run cold water over the burn for a minimum of 30 minutes. If the burn is small enough, keep it completely under water. Flushing the burn takes priority over calling for help. Flush the burn FIRST. If the victim's clothing is stuck to the burn, don't try to remove it. Remove clothing that is not stuck to the burn by cutting or tearing it. Cover the burn with a clean, cotton material. If you do not have clean, cotton material, do not cover the burn with anything. Do not scrub the burn and do not apply any soap, ointment, or home remedies. Also, don't offer the burn victim anything to drink or eat, but keep the victim covered with a blanket to maintain a normal body temperature until medical help arrives.

If the victim has received an electrical burn, the treatment is a little different. Don't touch a victim who has been in contact with electricity unless you are clear of the power source. If the victim is still in contact with the power source, electricity will travel through the victim's body and electrify you when you reach to touch. Once the victim is clear of the power source, your priority is to check for any airway obstruction, and to check breathing and circulation. Administer CPR if necessary. Once the victim is stable, begin to run cold water over the burns for a minimum of 30 minutes. Don't move the victim and don't scrub the burns or apply any soap, ointment, or home remedies. After flushing the burn, apply a clean, cotton cloth to the burn. If cotton is not available, don't use anything. Keep the victim warm and still and try to maintain a normal body temperature until medical help arrives.

USE COOL TREATMENT FOR HEAT EXHAUSTION OR STROKE

Heat exhaustion and heat stroke are two different things, although they are commonly confused as the same condition. Heat exhaustion can occur anywhere there is poor air circulation, such as around an open furnace or heavy machinery, or even if the person is poorly adjusted to very warm temperatures. The body reacts by increasing the heart rate and strengthening blood circulation. Simple heat exhaustion can occur due to loss of body fluids and salts. The symptoms are usually excessive fatigue, dizziness and disorientation, normal skin temperature but a damp and clammy feeling. To treat heat exhaustion, move to the victim to a cool spot and encourage drinking of cool water and rest.

Heat stroke is much more serious and occurs when the body's sweat glands have shut down. Some symptoms of heat stroke are mental confusion, collapse, unconsciousness, fever with dry, mottled skin. A heat stroke victim will die quickly, so don't wait for medical help to arrive--assist immediately. The first thing you can do is move the victim to a cool place out of the sun and begin pouring cool water over the victim. Fan the victim to provide good air circulation until medical help arrives.

#### RESPOND APPROPRIATELY TO THE FORM OF POISONING

The first thing to do is get the victim away from the poison. Then use provide treatment appropriate to the form of the poisoning. If the poison is in solid form, such as pills, remove it from the victim's mouth using a clean cloth wrapped around your finger. Don't try this with infants because it could force the poison further down their throat. If the poison is a gas, you may need a respirator to protect yourself. After checking the area first for your safety, remove the victim from the area and take to fresh air. If the poison is corrosive to the skin, remove the clothing from the affected area and flush with water for 30 minutes. Take the poison container or label with you when you call for medical help because you will need to be able to answer questions about the poison. Try to stay calm and follow the instructions you are given. If the poison is in contact with the eyes, flush the victim's eyes for a minimum of 15 minutes with clean water.

## KEEP A FIRST AID KIT CHECKLIST

In order to administer effective first aid, it is important to maintain adequate supplies in each first aid kit. First aid kits can be purchased commercially already stocked with the necessary supplies, or one can be made by including the following items:

Adhesive bandages: available in a large range of sizes for minor cuts, abrasions and puncture wounds Butterfly closures: these hold wound edges firmly together.

Rolled gauze: these allow freedom of movement and are recommended for securing the dressing and/or pads. These are especially good for hard-to-bandage wounds.

Nonstick Sterile Pads: these are soft, super absorbent pads that provide a good environment for wound healing. These are recommended for bleeding and draining wounds, burns, infections.

First Aid Tapes: Various types of tapes should be included in each kit. These include adhesive, which is waterproof and extra strong for times when rigid strapping is needed; clear, which stretches with the body's movement, good for visible wounds; cloth, recommended for most first aid taping needs, including taping heavy dressings (less irritating than adhesive); and paper, which is recommended for sensitive skin and is used for light and frequently changed dressings.

Items that also can be included in each kit are tweezers, first aid cream, thermometer, an analgesic or equivalent, and an ice pack.

Accidents happen anywhere and anytime. The first response to an accident is the most important. Often times, first aid given at the scene can improve the victim's chances of survival and a good recovery. The right response is better than an incorrect quick one. Any response, even if it is wrong, is better than none at all.

The first response to an accident is the most important – know what to do.

Keep a shock victim covered to reduce heat loss.

Try to stop bleeding by applying pressure to the wound.

Do not remove a victim with a spinal injury unless further danger is imminent.

Unconscious Victim: If the victim is unconscious, perform rescue breathing. (Rescue breathing is explained later on in this section.) If the victim's heart has stopped beating, perform cardiopulmonary resuscitation (CPR) if you have been properly trained to do so.

Shock: Shock usually accompanies severe injury or emotional upset. The signs are cold and clammy skin, pale face, chills, confusion, frequent nausea or vomiting and shallow breathing. Until emergency help arrives, have the victim lie down with the legs elevated. Keep the victim covered to prevent chilling or loss of body heat. Give non-alcoholic fluids if the victim is able to swallow and has not sustained an abdominal injury.

Bleeding: Until emergency help arrives, try to control bleeding. If possible, first put on rubber or latex gloves before touching any blood. If these are not available, a clean plastic bag can be used to cover your hands. It is important not to come in contact with blood because of the health risks.

If finger or hand pressure is inadequate to control bleeding, place a thick pad of clean cloth or bandage directly over the wound, and hold in place with a belt, bandage, neckties or cloth strips. Take care not to stop the circulation to the rest of the limb. For injuries where a tie cannot be used,

such as to the groin, back, chest, head and neck, place a thick pad of clean cloth or bandage directly over the wound and control the bleeding with finger or hand pressure. If bones are not broken, raise the bleeding part higher than the rest of the body. If the injury is extensive, the victim may go into shock and should be treated for it.

As a last resort, a tourniquet can be applied to stop bleeding. There is a risk of sacrificing a limb to save a life. A tourniquet is a wide band of cloth or other material tightly placed just above the wound to stop all flow of blood. A tourniquet crushes the tissue and can cause permanent damage to nerves and blood vessels. Once in place, a tourniquet must be left there until a physician removes it. The victim must be taken to medical help as soon as possible.

#### **Burns and Scalds**

Until medical help arrives, immerse the burned area immediately in tap or cool water or apply clean, cool, moist towels. Do not use ice because it may cause further damage to the burned area. Maintain this treatment until the pain or burning stops. Avoid breaking any blisters that may appear. Do not use ointments, greases or powders.

For more severe burns or chemical burns, keep the victim quiet and treat them for shock. Remove any clothing. If the clothing sticks to the burned area, leave it there. For exposure to chemicals, flush the skin with plenty of water, but only cover the exposed area with a clean bandage if the chemical has caused a burn. If the burn victim is conscious, can swallow and does not have severe mouth burns, give plenty of water or other non-alcoholic liquids to drink. Get the victim to a physician or hospital as soon as possible.

## **Spinal Injuries**

Take special care when helping a spinal injury victim. All damage to the spinal cord is permanent, because nerve tissue cannot heal itself. The result of nerve damage is paralysis or death.

Do not move the limbs or body of a victim with a suspected spinal injury unless the accident scene is such that there is imminent danger of further injury or unless it is necessary to establish breathing. The victim's body should be stabilized to prevent any movement of the head, neck or body. Be aware that any movement of a victim with spinal injury may result in paralysis or death.

If the victim must be moved, keep the neck and torso of the body as straight as possible and pull in a direction that keeps the victim's spine in a straight line. Pull the body from the feet or shoulders (using both feet, both shoulders, or both arms pulled over the shoulders). It is also possible to pull the victim by the clothing. Grab the victim by the collar of the shirt and support the victim's head

with your forearms while pulling. The clothing drag is preferred because the victim's head is supported while being moved. Do not pull the body sideways.

When providing patient care, it may be necessary to roll the victim over on his or her back to clear an airway or evaluate breathing. When rolling the victim over, the head, neck and torso should be moved together so that no twisting occurs.

Rescue Breathing for an Adult

When breathing movements stop, or lips, tongue and fingernails become blue, a person needs immediate help. When in doubt, apply rescue breathing until medical help arrives. Delay if rescue breathing my cost the victim's life. Start immediately. Seconds can count.

The American Red Cross teaches the following 10 steps to assist an adult who has stopped breathing.

Does the person respond? Tap or gently shake the victim. Shout, "Are you OK?"

Shout, "Help!" Call people who can phone for help.

Roll the person onto their back by pulling them slowly toward you. Slowly pull towards you until the victim is face up.

Open the airway by tilting the head back, and lift the chin. Clear the mouth and throat of any obstructions with your fingers.

Check for breathing. Look, listen and feel for breathing for three to five seconds.

Give two full breaths. Keep the head tilted back. Pinch the nose shut and seal your lips tight around the victim's mouth. Give two full breaths for one to one and a half seconds each.

Check for pulse at the side of the neck. Feel for pulse for five to 10 seconds.

Phone emergency staff for help. Send someone to call for an ambulance.

Continue rescue breathing. Keep the head tilted back, lift the chin and pinch the nose shut. Give one full breath every five seconds. Look, listen and feel for breathing between breaths.

Recheck the pulse every minute. Keep the head tilted back and feel for the pulse for five to 10 seconds. If the victim has a pulse, but is not breathing, continue rescue breathing.

For infants and small children, follow the first five steps listed above. On the sixth step cover the child's mouth and nose in a tight seal and give two small breaths. Check for pulse and call for help. Begin rescue breathing, giving one small breath every three seconds for an infant and one every four seconds for a child.

Choking

Choking occurs when food or a foreign object obstructs the throat and interferes with normal breathing. The following steps are advised if the choking victim is unable to speak or cough forcefully.

For adults and children over one year of age:

Ask, "Are you choking?"

Shout, "Help!" Call for help if the victim cannot cough, speak or breath, is coughing weakly or is making high-pitched noises.

Phone emergency staff for help. Send someone to call an ambulance.

Do abdominal thrusts: Wrap your arms around the victim's waist. Make a fist. Place the thumbside of the fist on the middle of the victim's abdomen just above the navel and well below the lower tip of the breastbone. Grasp the fist with the other hand. Press the fist into abdomen with a quick upward thrust.

Repeat abdominal thrusts until the object is coughed up or the victim starts to breathe or cough. If the victim becomes unconscious, lower the victim onto the floor.

Do a finger sweep. Grasp the tongue and lower jaw and lift jaw. Slide the finger down inside of the cheek to base of tongue. Sweep the object out.

Open the airway. Tilt the head back and lift the chin.

Give two full breaths. Keep the head tilted back, pinch the nose shut, and seal your lips tight around the victim's mouth. Give two full breaths for one to one and a half seconds.

Give six to 10 abdominal thrusts. If the air will not go in, place the heel of one hand against the middle of the victim's abdomen. Place the other hand on top of the first hand. Press into the abdomen with quick upward thrusts.

Repeat step six through nine until the airway is cleared or the ambulance arrives.

For infants less than one year old:

Place the victim's head in a downward position on the rescuer's forearm with the head and neck stabilized.

With the heel of the rescuer's hand, administer five rapid back blows between the victim's shoulder blades.

If the obstruction remains, turn the victim face up and rest on a firm surface.

Deliver five rapid thrusts over the breastbone using two fingers.

If the victim is still not breathing normally, administer mouth-to-mouth resuscitation as specified for an infant.

Repeat the above steps as necessary. If the obstruction cannot be removed, call for medical help immediately.

First aid is vital for saving lives. A person can carry out first aid after a life-threatening incident or injury before the arrival of emergency services.

Fast facts on first aid

The aims of first aid are to preserve life, prevent harm, and promote recovery.

In first aid, ABC stands for airway, breathing, and circulation.

The recovery position helps minimize further injury.

CPR stands for cardiopulmonary resuscitation. It helps maintain the flow of oxygenated blood.

While doing chest compressions, you may hear cracks. This is normal.

What is first aid?

First aid is vital at the scene of an emergency.

First aid is an emergency measure, generally consisting of simple, often life-saving techniques that most people can train to perform with minimal equipment and no previous medical experience.

The term usually refers to administering care to a human, although it can also be performed on animals.

It is not classed as medical treatment and does not replace interventions from a trained medical professional.

First aid is a combination of simple procedures and common sense.

Aims of first aid

The aims of first aid are:

To preserve life: Saving lives is the main aim of first aid.

To prevent further harm: The person who has experienced the injury must be kept stable, and their condition must not deteriorate before medical services arrive. This may include moving the

individual away from harm, applying first aid techniques, keeping them warm and dry, and applying pressure to wounds to stop any bleeding.

Promote recovery: Taking steps to promote recovery may include applying a bandage to a wound.

How to practice first aid

The most common term referred to in first aid is ABC. This stands for airway, breathing, and circulation. A fourth step will appear in the emergency procedures for some facilities.

Airway: Make sure the airway is clear. Choking, which results from the obstruction of airways, can be fatal.

Breathing: Once the airways are confirmed to be clear, determine whether the person can breathe, and, if necessary, provide rescue breathing.

Circulation: If the person involved in the emergency situation is not breathing, the first aider should go straight for chest compressions and rescue breathing. The chest compressions will promote circulation. This saves valuable time. In emergencies that are not life-threatening, the first aider needs to check the pulse.

Deadly bleeding or defibrillation: Some organizations consider dressing severe wounds or applying defibrillation to the heart a separate fourth stage, while others include this as part of the circulation step.

Evaluating and maintaining ABC with a patient depends on the training and experience of a first aider. As soon as ABC has been secured, the first aider can then focus on any additional treatments.

The ABC process must be carried out in that order.

However, there are times when a first aider might be performing two steps at the same time. This might be the case when providing rescue breathing and chest compressions to an individual who is not breathing and has no pulse.

It is important to use a primary survey to make sure the scene is clear of threats before stepping in to help:

Danger: Check for dangers to the injured person and yourself. If there is danger, can it be cleared, or can the individual be moved away from further harm? If there is nothing you can do, stand clear, and call for professional help.

Response: Once it is clear that all danger has ceased, check if the patient is conscious and alert, ask questions, and see if you get a response. It is also important to find out whether they respond to your touch and are aware of their pain.

Airway: Check whether the airway is clear and, if not, try to clear it. Have the injured person lying on their back, and then place one hand on the forehead and two fingers from the other hand on the chin. Gently tilt the head back while slightly raising the chin upwards. Any obstructions need to be removed from the mouth, including dentures. Only insert fingers into the mouth of the injured indivisual if an obstruction is present.

Breathing: Is the individual breathing effectively? The first aider should examine the chest for movement and the mouth for signs of breathing. Afterward, get close to the person to see if air can be felt on the cheek from breathing.

The first aider then needs to carry out a secondary survey, checking for deformities, open wounds, medic alert tags, and swellings.

If the injured person is breathing safely, carry out a rapid whole-body check for the following: open wounds, deformities, medical alert tags advising of underlying conditions, swellings

This is known as a secondary survey. As soon as this has been completed, place the individual in a recovery position. At this point, the first aider should call for an ambulance.

### Recovery position

Even if the individual is breathing but is unconscious, there is still a significant risk of airway obstruction. The recovery position reduces the risk to the patient. A first aider should do the following:

If the individual is wearing glasses, remove them.

Kneel next to the person, and place the arm nearest to you at a right angle to the body.

Bring the other arm across the chest. Hold the back of your hand against their nearest cheek.

With your other hand, hold the thigh furthest from you and pull up the knee. Make sure the foot is flat on the ground.

Slowly pull down on the raised knee, and roll the body over towards you.

Move the upper leg slightly, so that the hip and knee are bent at right angles. This makes sure that they do not roll onto their face.

Gently tilt the head back so that the airway is kept open.

Cardio-pulmonary resuscitation (CPR)

CPR is one type of first aid that can save lives.

If the person is not breathing, the first aider will need to perform CPR.

In 2008, the European Resuscitation Council and the American Heart Association (AHA) reversed their policy on the effectiveness of only using chest compressions and advised that they can be used without artificial respiration on adults who suddenly collapse in cardiac arrest.

It is unlikely that CPR will start a heart. Its purpose is to maintain the flow of oxygenated blood to the brain and heart, preventing or at least delaying tissue death. CPR can extend the brief window of time during which successful resuscitation can take place without permanent brain damage.

In 2005, the International Liaison Committee on Resuscitation (ILCOR) agreed on new guidelines. The new guidelines make it simpler for first aiders and healthcare professionals to carry out early resuscitation.

The new guidelines stated that rescuers should progress straight to CPR if there is no breathing, rather than checking for a pulse. They also added that rescue breathing must not be performed without chest compression.

There are two main steps in CPR: Applying chest compressions and then providing breaths.

Apply 30 chest compressions:

The first aider should kneel next to the person who is injured. They should be lying on their back.

For adults, place the heel of one hand in the middle of the chest. Place your other hand on top of the first hand and interlace the fingers.

Push the chest down about 1.5 to 2 inches. If the person is a child aged between 1 and 8 years, compress to a maximum of 1.5 inches with one hand. Let go, and wait for the chest to come back up completely before repeating. Your elbows must remain straight throughout.

Push the breastbone up and down to a depth of about 5 cm about 30 times, at a pulse rate of 100 beats per minute.

Provide two breaths:

Make sure the airway is open, and pinch the nose so it closes.

Gently raise the chin upwards with two fingers of your other hand.

Take a deep breath, seal your mouth over that of the person with the injury, and exhale into the airway.

You should see the chest rise and fall.

To get another breath, lift your head and breathe in deeply. Perform steps 1, 2, 3, and 4 again.

Repeat the 30 chest compressions followed by the two breaths about five times, and then check for normal breathing. If they are not breathing normally, carry on performing CPR. If breathing restarts as normal, stay with the injured person until help arrives.

Chest compressions alone can be lifesavers – the crucial factor is time. Make sure you respond quickly.

It is important not to let your hands bounce when performing chest compressions. Make sure the heel of your hand is touching the chest throughout chest compressions.

You might hear some pops and snaps during chest compressions. These are normal, so do not stop.

How to spot and treat a heart attack

A heart attack occurs when there is a loss of blood supply to part of the heart muscle, often due to a blockage in a nearby artery. Symptoms include pain in the chest that may spread. It is a medical emergency that needs hospital treatment.

A person who is experiencing a heart attack — or myocardial infarction — will feel pain in their chest and other parts of their body, as well as other symptoms, including nausea, sweating, and shortness of breath.

Spotting the early signs of a heart attack and getting prompt treatment is crucial and can save a person's life.

A heart attack is different from cardiac arrest, in which the heart stops working altogether, but both are medical emergencies. Without treatment, a heart attack can lead to cardiac arrest.

This article explains the symptoms, causes, and treatment options for a heart attack.

Is it a heart attack?

Heart attacks occur when there is a lack of blood supply to the heart. Symptoms include:

chest pain, pressure, or tightness

pain that may spread to arms, neck, jaw, or back

nausea and vomiting

sweaty or clammy skin

heartburn or indigestion

shortness of breath

coughing or wheezing

lightheadedness or dizziness

anxiety that can feel similar to a panic attack

If someone has these symptoms:

Dial 108 or the number of the nearest emergency department.

Stay with them until the emergency services arrive.

If a person stops breathing before emergency services arrive, perform manual chest compressions:

Lock fingers together and place the base of hands in the center of the chest.

Position shoulders over hands and lock elbows.

Press hard and fast, at a rate of 100–120 compressions per minute, to a depth of 2 inches.

Continue these movements until the person starts to breathe or move.

If needed, swap over with someone else without pausing compressions.

Use an automated external defibrillator (AED) available in many public places:

An AED provides a shock that may restart the heart.

Follow the instructions on the defibrillator or listen to the guided instructions.

Was this helpful?

Symptoms of a heart attack

As heart attacks can be Trusted Source fatal, it is crucial to recognize the warnings as soon as possible and contact emergency services.

## Symptoms include:

a feeling of pressure, tightness, pain, squeezing, or aching in the chest

pain that spreads to the arms, neck, jaw, or back

a feeling of crushing or heaviness in the chest

a feeling similar to heartburn or indigestion

nausea and sometimes vomiting

feeling clammy and sweaty

shortness of breath

feeling lightheaded or dizzy

in some cases, anxiety that can feel similar to a panic attack

coughing or wheezing, if fluid builds up in the lungs

Heart attack symptoms can vary in their order and duration — they may start slowly or be intermittent over several hours

The following may also develop:

Hypoxemia: This involves low levels of oxygen in the blood.

Pulmonary edema: This involves fluid accumulating in and around the lungs.

Cardiogenic shock: This involves blood pressure dropping suddenly because the heart cannot supply enough blood for the rest of the body to work adequately.

Females and males sometimes experience heart attacks differently.

## Causes

The most common cause of a heart attack is a complete or partial blockage in one of the arteries near the heart.

This can result from coronary heart disease, in which plaque — made up of cholesterol and other substances — collects in the arteries, narrowing them. Over time, this can obstruct the flow of blood.

Less common causes include:

coronary artery spasms

blood clots

spontaneous coronary artery dissection

the misuse of drugs, such as cocaine, which causes the Trusted Source blood vessels to narrow

### **Treatment**

A heart attack is life threateningTrusted Source and needs emergency attention. Prompt treatment can significantly increase a person's chance of survival.

If a person experiences heart attack symptoms, they or someone else should call 108 immediately.

Be ready to explain symptoms and describe the person's location.

Stay calm and follow all instructions from the emergency team.

If a person calls 108 for someone else, they can talk with the person and reassure them that help is on the way.

In the event of cardiac arrest

Signs of cardiac arrest include a sudden loss of responsiveness and normal breathing. If this occurs, the American Heart Association (AHA)Trusted Source states a person should:

Check a person's responsiveness:

Tap the affected person on the shoulder and ask if they are OK.

Do manual chest compressions:

Lock your fingers together and place the base of your hands in the center of the person's chest.

Position your shoulders over your hands, lock your elbows, and press hard and fast, at a rate of 100–120 compressions per minute. Press to a depth of 2 inches.

Allow the chest to rise again between each compression.

Continue these movements until the person starts to breathe or move, until someone else can take over, or until you are exhausted.

If possible, take turns without pausing the compressions until the emergency response team arrives.

If possible, people can also use an automatic external defibrillator (AED). AEDs are available in shopping malls and many other public places.

An AED provides a shock that may restart the heart. Remain calm and follow the instructions. Most newer AEDs talk a person through the steps.

Medical treatment

When the emergency team arrives, they will take over the affected person's care. Give the team as much detail as possible about the person's health and what was happening before the event.

When making a diagnosis and drawing up a treatment strategy, they will take into account the person's:

age

medical history

overall health

family history

The team will try to stabilize the person's condition, including providing oxygen.

In the hospital, a medical team will perform tests and may provide Trusted Source the following treatment options:

medications, such as those to dissolve blood clots

percutaneous coronary intervention, a mechanical method of restoring blood flow to any damaged tissue

coronary artery bypass grafting, commonly called a heart bypass, diverts blood around damaged areas of the arteries to improve blood flow

The healthcare team will also work with the individual to develop a treatment plan to prevent future attacks.

## Complications

Some people experience complications after a heart attack. Depending on how severe the event was, these may include:

Depression: Some peopleTrusted Source may feel depressed after a heart attack, but engaging with loved ones and support groups can help.

Arrhythmia: The heart beats irregularly, either too fast or too slowly.

Edema: Fluid accumulates and causes swelling in the ankles and legs.

Aneurysm: Scar tissue builds up on the damaged heart wall, which causes thinning and stretching of the heart muscle, eventually forming a sac. This can also lead to blood clots.

Angina: Insufficient oxygen reaches the heart, causing chest pain.

Heart failure: The heart can no longer pump effectively, leading to fatigue, difficulty breathing, and edema.

Myocardial rupture: This is a tear in a part of the heart due to damage from a heart attack.

Ongoing treatment and monitoring can help reduce the risk of these complications.

### Recovery

Recovery can take as long as several months, depending on the severity of the heart attack and other factors, such as the cause and the person's age.

Recovery timeframes may differ before a person can resume their typical habits in the following areas:

physical activity

returning to work

driving

sexual activity

A person's doctor or healthcare team will explain recovery timings and when they can resume the above activities. They will also help the person make a plan to restore their health and prevent another heart attack.

Preventing a heart attack

There are various ways to lower the risk of a heart attack, even after already having one heart attack. The AHATrusted Source advises people to make heart health a priority.

Ways to do this includeTrusted Source:

avoid or quit smoking

eat a balanced, healthful diet

get regular exercise

manage diabetes, high cholesterol levels, high blood pressure, and other conditions limit alcohol intake maintain or achieve a moderate body weight reduce stress, such as with: breathing exercises yoga mindfulness Knowing the symptoms of a heart attack can help a person get prompt treatment, increasing the chances of a positive outcome. Risk factors According to the AHATrusted Source, the following factors can increase the risk of a heart attack: older age being male high cholesterol levels high blood pressure other health conditions, such as having obesity or diabetes a diet high in: processed foods added fats, sugars, and salt low activity levels genetic factors and family history smoking a high alcohol intake high levels of stress Often, a heart attack results from a combination of factors.

People with high blood pressure or a history of heart disease or cardiovascular disease also have an increased risk of a heart attack.

Frequently asked questions

Below are some common questions about heart attacks.

What does a mini heart attack feel like?

A mini heart attack may occur due to a partial blockage of the arteries. Symptoms may be similar to a larger heart attack, including chest pain.

How do doctors treat a mini heart attack?

Doctors may use an electrocardiogram to diagnose a mini heart attack and use treatments such as aspirin, anticoagulant medication, or beta-blockers.

Can someone survive a severe heart attack?

Prompt treatment increases the risk of surviving a heart attack. Anyone with heart attack symptoms should seek immediate medical attention, regardless of the severity of symptoms.

What should a person do if they have heart attack symptoms?

A person with heart attack symptoms should immediately call 108. Receiving prompt treatment will significantly increase a person's risk of surviving a heart attack.

Summary

A heart attack can be life threatening and needs immediate medical attention.

Key warnings include pain and tightness in the chest, pain in other parts of the body, and difficulty breathing.

Introduction to first aid

At any moment, you or someone around you could experience an injury or illness. Using basic first aid, you may be able to stop a minor mishap from getting worse. In the case of a serious medical emergency, you may even save a life.

That's why it's so important to learn basic first aid skills. To build on the information you learn here, considering taking a first aid course. Many organizations offer first aid training, including the American Red Cross and St. John Ambulance.

#### Definition of first aid

When you provide basic medical care to someone experiencing a sudden injury or illness, it's known as first aid.

In some cases, first aid consists of the initial support provided to someone in the middle of a medical emergency. This support might help them survive until professional help arrives.

In other cases, first aid consists of the care provided to someone with a minor injury. For example, first aid is often all that's needed to treat minor burns, cuts, and insect stings.

3 steps for emergency situations

If you encounter an emergency situation, follow these three basic steps:

### 1. Check the scene for danger

Look for anything that might be dangerous, like signs of fire, falling debris, or violent people. If your safety is at risk, remove yourself from the area and call for help.

If the scene is safe, assess the condition of the sick or injured person. Don't move them unless you must do so to protect them from danger.

# 2. Call for medical help, if needed

If you suspect the sick or injured person needs emergency medical care, tell a nearby person to call 108 or the local number for emergency medical services. If you're alone, make the call yourself.

## 3. Provide care

If you can do so safely, remain with the sick or injured person until professional help arrives. Cover them with a warm blanket, comfort them, and try to keep them calm. If you have basic first aid skills, try to treat any potentially life-threatening injuries they have.

Remove yourself from danger if at any point in the situation you think your safety might be at risk.

First aid bandage

In many cases, you can use an adhesive bandage to cover minor cuts, scrapes, or burns. To cover and protect larger wounds, you might need to apply a clean gauze pad or roller bandage.

To apply a roller bandage to a wound, follow these steps:

Hold the injured area steady.

Gently but firmly wrap the bandage around the injured limb or body part, covering the wound.

Fasten the bandage with sticky tape or safety pins.

The bandage should be wrapped firmly enough to stay put, but not so tightly that it cuts off blood flow.

To check the circulation in a bandaged limb, pinch one of the person's fingernails or toenails until the color drains from the nail. If color doesn't return within two seconds of letting go, the bandage is too tight and needs to be adjusted.

First aid for burns

If you suspect that someone has a third-degree burn, call 108. Seek professional medical care for any burns that:

cover a large area of skin

are located on the person's face, groin, buttocks, hands, or feet

have been caused by contact with chemicals or electricity

To treat a minor burn, run cool water over the affected area for up to 15 minutes. If that's not possible, apply a cool compress to the area instead. Avoid applying ice to burned tissue. It can cause more damage.

Over-the-counter pain relievers can help relieve pain. Applying lidocaine or an aloe vera gel or cream can also reduce discomfort from minor burns.

To help prevent infection, apply an antibiotic ointment and loosely cover the burn with clean gauze. Find out when you should contact a doctor for follow-up care.

First aid CPR

If you see someone collapse or find someone unconscious, call 108. If the area around the unconscious person seems safe, approach them and begin CPR.

Even if you don't have formal training, you can use hands-only CPR to help keep someone alive until professional help arrives.

Here's how to treat an adult with hands-only CPR:

Place both hands on the center of their chest, with one hand on top of the other.

Press straight down to compress their chest repeatedly, at a rate of about 100 to 120 compressions per minute.

Compressing the chest to the beat of "Staying Alive" by the Bee Gees or "Crazy in Love" by Beyoncé can help you count at the correct rate.

Continue performing chest compressions until professional help arrives.

Learn how to treat an infant or child with CPR and how to combine chest compressions with rescue breathing.

First aid for bee sting

For some people, a bee sting is a medical emergency. If a person is having an allergic reaction to a bee sting, call 108. If they have an epinephrine auto-injector (like an EpiPen), help them find and use it. Encourage them to remain calm until help arrives.

Someone who's stung by a bee and showing no signs of an allergic reaction can usually be treated without professional help.

If the stinger is still stuck under the skin, gently scrape a credit card or other flat object across their skin to remove it. Then wash the area with soap and water and apply a cool compress for up to 10 minutes at a time to reduce pain and swelling.

To treat itching or pain from the sting, consider applying calamine lotion or a paste of baking soda and water to the area several times a day.

Get the information you need to recognize and treat other types of stings and bites.

First aid for nosebleed

To treat someone with a nosebleed, ask them to:

Sit down and lean their head forward.

Using the thumb and index finger, firmly press or pinch the nostrils closed.

Continue to apply this pressure continuously for five minutes.

Check and repeat until the bleeding stops.

If you have nitrile of vinyl gloves, you can press or pinch their nostril closed for them.

If the nosebleed continues for 20 minutes or longer, seek emergency medical care. The person should also receive follow-up care if an injury caused the nosebleed.

Learn when professional care is needed for a nosebleed.

First aid for heatstroke

When your body overheats, it can cause heat exhaustion. If left untreated, heat exhaustion can lead to heatstroke. This is a potentially life-threatening condition and medical emergency.

If someone is overheated, encourage them to rest in a cool location. Remove excess layers of clothing and try to cool their body down by doing the following:

Cover them with a cool, damp sheet.

Apply a cool, wet towel to the back of their neck.

Sponge them with cool water.

Call 108 if they develop signs or symptoms of heatstroke, including any of the following:

nausea or vomiting

mental confusion

fainting

seizures

a fever of 104°F (40°C) or greater

If they're not vomiting or unconscious, encourage them to sip cool water or a sports drink. Take a moment now to learn about other strategies to help someone with heat exhaustion or heatstroke recover.

#### First aid for heart attack

If you think someone might be experiencing a heart attack, call 108. If they've been prescribed nitroglycerin, help them locate and take this medication. Cover them with a blanket and comfort them until professional help arrives.

If they have difficulty breathing, loosen any clothing around their chest and neck. Start CPR if they lose consciousness.

### First aid kit for babies

To prepare for potential emergencies, it's a good idea to keep a well-stocked first aid kit in your home and car. You can buy preassembled first aid kits or make your own.

If you have a baby, you might need to replace or supplement some of the products in a standard first aid kit with infant-appropriate alternatives. For example, your kit should include an infant thermometer and infant acetaminophen or ibuprofen.

It's also important to store the kit in a place where your baby can't reach it.

Ask your pediatrician or family doctor for more information about infant-friendly first aid.

## First aid kit list

You never know when you might need to provide basic first aid. To prepare for the unpredictable, considering storing a well-stocked first aid kit in your home and car. It's also a good idea to have a first aid kit available at work.

You can buy preassembled first aid kits from many first aid organizations, pharmacies, or outdoor recreation stores. Alternatively, you can create your own first aid kit using products purchased from a pharmacy.

A standard first aid kit should include:

adhesive bandages of assorted sizes

roller bandages of assorted sizes absorbent compress dressings sterile gauze pads adhesive cloth tape triangular bandages antiseptic wipes aspirin acetaminophen or ibuprofen antibiotic ointment hydrocortisone cream calamine lotion nitrile or vinyl gloves safety pins scissors tweezers thermometer breathing barrier instant cold pack blanket first aid manual It's also smart to include a list of your healthcare providers, emergency contact numbers, and prescribed medications in your first aid kits.

## Outlook

It's important to protect yourself from contagious illnesses and other hazards when providing first aid. To help protect yourself:

Always check for hazards that could put your safety at risk before approaching a sick or injured person.

Avoid direct contact with blood, vomit, and other bodily fluids.

Wear protective equipment, such as nitrile or vinyl gloves when treating someone with an open wound or a breathing barrier when performing rescue breathing.

Wash your hands with soap and water immediately after providing first aid care.

In many cases, basic first aid can help stop a minor situation from getting worse. In the case of a medical emergency, first aid might even save a life. If someone has a serious injury or illness, they should receive follow-up care from a medical professional.

#### ABCs of First Aid

If someone is unconscious or unresponsive, the basic principle of first aid that you need to know is ABC: airway, breathing, and circulation.

Airway: If someone's not breathing, the first thing you need to do is open their airway.

Breathing: If you have cleared a person's airway but they're still not breathing, provide rescue breathing.

Circulation: As you are doing rescue breathing, perform chest compressions to keep the person's blood circulating. If the person is not responsive, check their pulse. If their heart has stopped, provide chest compressions.

A simpler version of the ABCs is:

Awake? If the person is not awake, try to wake them. If they don't wake up, make sure someone is calling 108 and move on to the next step.

Breathing? If a person is not awake and not breathing, start rescue breathing and chest compressions. Then, move to the next step.

Continue care: When you call for help, follow instructions from 108 or continue treatment until an ambulance arrives.

Some first aid courses also include D and E:

D can stand for: Disability assessment, deadly bleeding, or automated external defibrillator (AED). An AED is a device that shocks the heart to make it start beating again.1

E can stand for: Examination (checking the person for signs of injury, bleeding, allergies, or other problems once you know they're breathing and their heart is beating).

Where to Get First Aid Training

Taking a formal CPR class will help you become familiar with doing chest compressions, rescue breathing, and using an AED. You can find courses from the American Red Cross, your local community first responders, and online.

First Aid for a Stopped Heart

Person performing CPR on a child.

Elva Etienne / Getty Images

Cardiopulmonary resuscitation (CPR) is one of the most important emergency medical procedures that a person can know.

When a person is in cardiac arrest (heart is not beating), doing CPR and/or using an AED could restart their heart and/or recirculate blood until their heart can be restarted with a defibrillator. 2 This can restore their life.

AEDs are available in many public areas and businesses. These first aid devices are made to be easy to use even if you have no training.

Life-Saving First Aid Skills

What to Do

If you think someone is in cardiac arrest, there are four steps you can take to help them.3

Find a person nearby. Make eye contact, point to them, and say: "Call 108."

Start doing chest compressions on the person who needs help. Using both your hands, push down hard and fast in the center of the person's chest. Let their chest come back up naturally between compressions. You may hear pops or snaps; this is normal.

Keep going until someone with more training arrives.

If you're trained in CPR, you can use chest compressions and rescue breathing.

If it's available, use an AED. However, do not put off doing chest compressions to go look for an AED. If possible, instruct someone else to go find the device and bring it to you.

How to Do CPR

First Aid for Bleeding

Man bandaging hand on staircase.

Zero Creatives / Getty Images

If someone is injured and bleeding, there are a few basics about how blood works that will be helpful for you to know.

The color of the blood and how it's leaving the body can give you a sense of the extent of the injury:

Capillaries: Bleeding from the smallest blood vessels (capillaries) looks like a trickle. This kind of bleeding usually stops on its own.

Veins: A consistent blood flow and blood that's a dark red color is most likely coming from the veins. This type of bleeding can range from mild to severe.

Arteries: Arteries are the largest blood vessels and carry a lot of oxygen. If they are injured, bright red blood will spurt out. Blood can be lost very fast with this kind of bleeding.

Almost all bleeding can be controlled with first aid. If severe bleeding keeps going, a person can go into shock and may die.4

First Aid for Puncture Wounds

What to Do

While it is important to stop bleeding, begin with the ABCs of first aid.5

The next steps are to:

Put on disposable gloves if you have them. This will protect you from infectious diseases like viral hepatitis and HIV/AIDS that can be spread in a person's blood.6

Rinse the wound with water.

Cover the wound with a gauze or cloth (e.g., towel, blanket, clothing).

Apply direct pressure to stop the flow of blood and encourage clotting (when blood naturally thickens to stop blood loss).

Elevate the bleeding body part above the person's heart if you can.

Do not remove the cloth if it becomes soaked. Removing the first layer will interfere with the clotting process and result in more blood loss. Instead, add more layers if needed.

Once bleeding has stopped, put a clean bandage on the wound.

Get medical help if:

The wound is deep.

The wound has widely separated sides.

The injury oozes blood after pressure has been applied.

The injury is from an animal or human bite.

The injury is a puncture, burn, or electrical injury.

You think there is arterial bleeding.

Blood is soaking through the bandages.

The bleeding is not stopping.5

If you are taking the person to the hospital, make sure that you have someone else who can keep administering first aid while you drive.

How to Control Bleeding

First Aid for Choking

Man performing the Heimlich maneuver on a choking woman.

Science Photo Library / Getty Images

Choking happens when a person's windpipe (trachea) gets blocked by food or an object. It is a serious event that can lead to unconsciousness or even death.7

Signs of choking include:

Gagging, gasping, or wheezing

Inability to talk or make noise

Turning blue in the face

Grabbing at the throat

Waving arms

Looking panicked8

**Degloving Injuries From Accidents** 

Using the Heimlich Manuever

The Heimlich maneuver is a series of abdominal thrusts that can help dislodge the thing a person is choking on. This first aid technique should only be done if someone is truly choking.

Before doing anything, ask the person if they are choking. Remember: If someone is coughing or talking, they are not choking.

What Is the Recovery Position?

What to Do

If someone is choking, you should know how to use the Heimlich maneuver.8

Here are the steps: Stand behind the person and lean them slightly forward. Put your arms around their waist. Clench your fist and place it between their belly button (navel) and rib cage. Grab your fist with your other hand. Pull your clenched fist sharply backward and upward under the person's rib cage in five quick thrusts. Repeat until the object is coughed up. For someone who is obese or pregnant, perform the thrusts around the chest instead of the abdomen. If someone is choking and becomes unconscious: Place them on their back and kneel over them. Place the heel of your hand slightly above their belly button. Place your other hand on top of it. Give quick upward thrusts to dislodge the object. Helping a Choking Infant If a baby is choking, you need to use different first aid techniques to help them.9 Start with back blows: Lay the baby across your forearm, face down. Support them with your lap or upper thigh. Hold their chest in your hand and jaw between your fingers (the baby's head should be pointed down so it's lower than their body). With the heel of your free hand, give five quick, forceful blows to the baby's back between the shoulder blades. If back blows don't work, try chest thrusts:

Turn the baby face up, keeping them on your lap for support.

Keeping their head angled down, lower than their body, hold the back of their head with your hand to steady it.

Place two or three of your fingers in the center of the baby's chest just below the nipples.

Give five quick thrusts downward so the breastbone gets pushed in about 1.5 inches.

If a choking infant loses consciousness, you may need to do CPR until emergency help arrives.

What to Do if You're Alone and Choking

You can give yourself the Heimlich maneuver even if you are alone.

Call 108 first, even though you will not be able to speak. Leave the phone connected. 108 can pinpoint your location and send emergency help. Use a landline if available. If a landline isn't available, a cell phone can be used.

Grasp one fist with the other hand and place above your belly button.

Thrust inward and upward with your fist. Repeat until the object is dislodged.

You can also bend over a hard surface such as the back of a chair. Use the hard surface to apply repeated thrusts to your abdomen. Repeat until the object is dislodged.

First Aid for Burns

Person holding their hands under running faucet.

**RUNSTUDIO / Getty Images** 

The first step to treating a burn is to stop the burning process.10

This might mean:

Cleaning up chemicals

Turning off electricity

Cooling heat with running water

Covering up or taking a person inside out of the sun

The severity of a burn is based on how deep in the skin it is and how big it is:

First-degree burn: This kind of burn only affects only the outer layer of skin and causes redness and swelling. It is considered a minor burn.

Second-degree burn: This kind of burn affects two layers of skin and causes blistering, redness, and swelling. It is considered a major burn if it's more than 3 inches wide or is on the face, hands, feet, genitals, buttocks, or over a major joint.

Third-degree burn: This kind of burn affects deeper layers of skin and causes white or blackened skin that can be numb. It is always considered a major burn.11

First Aid for Burns

What to Do

Major burns need emergency medical attention.11 Once you've stopped the burning process, call 108 or get someone else to.

For burns that are not an emergency, you can take these first aid steps:

Flush the burned area with cool running water for several minutes. Do not use ice.12

Apply a light gauze bandage. If the burn is minor, you can put on an ointment, like aloe vera, before you cover it.13

Take Motrin (ibuprofen) or Tylenol (acetaminophen) for pain relief if you need it.

Do not break any blisters that form.13

The Different Degrees of Burns

First Aid for Blisters

Man applying adhesive bandage on ankle.

Rattanakorn Songrenoo / Getty Images

Blisters protect damaged skin while it heals.

Some blisters need to be treated and others don't. Whether you need to treat a blister depends on how bad it is and your overall health.

What Is a Blood Blister?

What to Do

If the blister is small, not open, and doesn't hurt, it's best to leave it alone. You can cover it to prevent rubbing, which could cause it to swell and burst.

Do not pop a small blister.14 This could let bacteria get inside it and cause an infection.

If the blister is big or painful, you need to take different steps to treat it.15

Here are the first-aid steps to take for a more serious blister: Wash your hands. Sterilize a needle with alcohol. Make small holes at the edge of the blister. Gently push out the fluid. Apply antibiotic ointment. Put on a bandage. If possible, take steps to protect the area from further rubbing or pressure. What to Do If You Spill Bleach on Your Skin If you have a compromised immune system, you are more likely to get an infection and should not drain a blister on your own.15 However, your healthcare provider may want to drain it to help prevent infection. If a blister breaks open on its own: Gently wash the area with clean water only. Smooth the flap of broken skin over the newly exposed skin, unless it's dirty, torn, or there is pus under it. Put petroleum jelly on it. Cover it with a bandage. Change the bandage any time it gets wet. Take it off when you go to bed to give the area a chance to air out. Can You Take First Aid Kits on a Plane? First Aid for a Broken Bone or Fracture Woman sitting with ice pack on knee. Odilon Dimier / Getty Images Any injury to your limbs, hands, and feet needs to be treated as a broken bone until an X-ray can be done.

While broken bones or fractures do need medical treatment, they do not all require an emergency trip to the hospital. First aid steps can help stabilize the bone until you can see a healthcare provider.

What to Do

In some cases, you will need emergency medical care to deal with a broken bone.16

Call 108 if:

The person is bleeding a lot, is unresponsive, is not breathing, or has more than one injury.

You think a person has a fracture or other serious injury in their spinal column, head, hip, pelvis, or thigh. In this case, do not move the person.

A broken bone is poking through the skin (open or compound fracture).

The area below an injured joint feels cold and clammy or looks bluish.

You cannot keep the injury from moving well enough to transport the person.

Otherwise, you can use first aid, then go to urgent care or contact your healthcare provider for guidance.

What Are Soft Tissue Injuries?

Here's what to do next:

Do not try to straighten the bone.

For a limb, use a splint and padding to keep it still, then elevate it.

Put a cold pack on the injury—but not directly on the skin. Use a barrier between the ice and the skin to keep the tissue from being damaged. If all you have is ice, put it in a plastic bag and wrap it in a shirt or towel before applying it.

Give the person anti-inflammatory drugs like Advil (ibuprofen) or Aleve (naproxen) for pain.

Some research has shown that non-steroidal anti-inflammatory drugs (NSAIDs) like Advil and Aleve can slow bone healing. However, short-term NSAID use appears to have little or no effect on healing. 17 You may use Tylenol (acetaminophen) as an alternative for pain relief.

How to Avoid Ice Pack Injuries

First Aid for Sprains

Soccer player sitting on grass and icing ankle.

Adam Burn / Getty Images

A sprain is an injury to the connective tissues that hold bones, cartilage, and joints together (ligaments).

Sprains are most often caused when the twisting of a joint overstretches or tears these tissues. They tend to happen in the ankles, knees, and wrists.18

The symptoms of a sprain are similar to those of a broken bone. A person will need to have an X-ray to figure out which injury they have.

Sprains vs. Strains

What to Do

The first thing to do is make sure that the injured person stops any unnecessary activity, as moving can make the injury worse.

Sprains often don't require emergency treatment.19 However, you should get immediate medical care if the injured person:

Has severe pain when they move or are touched

Cannot put any weight on the injured joint

Has increased bruising

Has numbness or pins-and-needles near the sprain

Shows signs of infection

Has little or no improvement during the first week after the injury happens

If emergency care is not needed, follow these first aid steps:19

Keep the limb as still as possible.

Apply a cold pack.

Elevate the injured part if you can do so safely.

Use NSAIDs for pain.

Ask your provider about any other treatment for a sprain you might need.

https://nhcps.com/lesson/cpr-first-aid-first-aid-basics/

First aid refers to the emergency or immediate care you should provide when a person is injured or ill until full medical treatment is available. For minor conditions, first aid care may be enough. For serious problems, first aid care should be continued until more advanced care becomes available.

The decision to act appropriately with first aid can mean the difference between life and death. Begin by introducing yourself to the injured or ill person. Explain that you are a first aid provider and are willing to help. The person must give you permission to help them; do not touch them until they agree to be helped. If you encounter a confused person or someone who is critically injured or ill, you can assume that they would want you to help them. This is known as "implied consent.

### FIRST AID BASICS

The first step in any emergency is the recognition of the problem and providing help. When in doubt or when someone is seriously injured or ill, you should always activate the emergency response system by calling 108 in the United States, or your own locality's Emergency Medical Services (EMS) number. If you're not sure how serious the situation is, the 108/EMS operator will ask you a series of questions to determine the severity of the situation.

Remain on the line until additional help arrives, or until the 108/EMS operator tells you to hang up. Emergency system dispatchers can guide you through the steps of performing cardiopulmonary resuscitation (CPR), using an automated external defibrillator (AED), or delivering basic care until additional help arrives.

Whether you are at home, work, or school, know where the first aid kit and the AED are kept and be familiar with their contents. Know how to activate the Emergency Medical Services (EMS) in your area. Be aware of any policies in the workplace regarding medical emergencies.

After determining the problem, the next step in providing help is to determine the responsiveness of the injured or ill person. The best way to determine this is to tap the person and talk loudly to them: "Are you okay?" After determining responsiveness, yell for help. Look for any medical identifications, such as a necklace or a bracelet. This may provide a valuable clue to the cause of the situation.

### **SCENE SAFETY**

Assessing the safety of the surroundings is critical when approaching any scene. You do not want to become another person who is injured or ill, so look for any potential dangers. Remove the person from any dangers, such as the presence of water at the scene. Be especially alert to avoid danger from automobile traffic.

#### HANDWASHING AND PERSONAL PROTECTIVE GEAR

Handwashing is essential in the prevention of disease and illness. Wash your hands after each episode of care and after taking off gloves. When a sink is not available, use hand sanitizers. (Most hand sanitizers are alcohol-based and are a substitute for handwashing when needed.)

Proper handwashing technique is fairly simple:

Man washing his hands

Completely wet your hands and generously apply soap.

Rub vigorously for at least 20 seconds.

Rinse your hands with plenty of running water.

Dry your hands with a towel or air dryer.

Using personal protective gear is an important strategy to minimize the risk of blood and bodily fluid exposure. If the person is bleeding, always wear gloves and protective eyewear when giving first aid care. The universal precaution is to use personal protective equipment whenever there is possible exposure to blood or bodily fluids; it reduces the risk for both the rescuer and the injured/ill person to be exposed to a blood-borne disease. Gloves protect your hands from exposure to blood and other bodily fluids, while eye protection prevents accidental exposure from splashing fluids.

Consider a pocket mask as part of your personal protective gear as it provides safety during rescue breathing. Be sure to dispose of all equipment that has touched bodily fluids in a biohazard bag when available.

When taking off the gloves, avoid touching the outer contaminated surface. Slowly pull one glove off while turning it inside out. Place the glove in the palm of the other gloved hand, and then remove the second glove while turning it inside out.

#### FIRST AID KIT

Consider purchasing a commercially available first aid kit or making your own. Having a kit in your home, your car, and at your place of work is essential to stay prepared.

Common items found in a first aid kit are: Bandages, roller bandages, and tape, Sterile gauze, Antiseptic wipes and swabs, Absorbent compresses, Antibiotic cream, Burn ointment, Mask for breathing (rescue breathing/CPR), Chemical cold pack, Eyeshield and eyewash, First aid reference guide that includes local phone numbers

First Aid for Bee and Insect Stings

Most bees and insects will not attack if left alone. If provoked, a bee will sting in defense of its nest or itself. Thousands of people are stung each year and as many as 40 to 50 people in the United States die each year as a result of allergic reactions.

Light-colored clothing attracts fewer bees than does dark clothing.

First Aid for Bee and Insect Stings

Scrape the stinger out from the stung area—never squeeze or pull out the stinger.

Persons with severe allergic reactions to insect stings should consider wearing a medical ID bracelet and carrying an insect allergy kit where appropriate.

Reduce the Risk of Being Stung

Wear light-colored, smooth-finished clothing.

Avoid perfumed soaps, shampoos, and deodorants. Don't wear cologne or perfume. Avoid bananas and banana-scented toiletries.

Wear clean clothing and bathe daily. Sweat angers bees.

Cover the body as much as possible with clothing.

Avoid flowering plants.

Check for new nests during the warmer hours of the day during July, August and September. Bees are very active then.

Keep areas clean. Social wasps thrive in places where humans discard food, so clean up picnic tables, grills and other outdoor eating areas.

If a single stinging insect is flying around, remain still or lie face down on the ground. The face is the most likely place for a bee or wasp to sting. Swinging or swatting at an insect may cause it to sting.

If you are attacked by several stinging insects at the same time, run to get away from them. Bees release a chemical when they sting. This alerts other bees to the intruder. More bees often follow. If possible, get indoors when there are a few, if any, bees around you. Outdoors, a shaded area is better than an open area to get away from the insects.

If a bee comes inside your vehicle, stop the car slowly, and open all the windows.

What to Do if a Person is Stung

Have someone stay with the victim to be sure that they do not have an allergic reaction.

Wash the site with soap and water.

The stinger can be removed using a 4x4-inch gauze wiped over the area or by scraping a fingernail over the area. Never squeeze the stinger or use tweezers. It will cause more venom to go into the skin and injure the muscle.

Apply ice to reduce the swelling.

Do not scratch the sting. This will cause the site to swell and itch more, and increase the chance of infection.

### Allergic Reactions to Bee Stings

Allergic reactions to bee stings can be deadly. People with known allergies to insects stings should always carry an insect sting allergy kit and wear a medical ID bracelet or necklace stating their allergy. See a physician about getting either of these.

There are several signs of an allergic reaction to bee stings. Look for swelling that moves to other parts of the body, especially the face or neck. Check for difficulty in breathing, wheezing, dizziness or a drop in blood pressure. Get the person immediate medical care if any of these signs are present. It is normal for the area that has been stung to hurt, have a hard swollen lump, get red and itch. There are kits available to reduce the pain of an insect sting. They are a valuable addition to a first aid kit.

Disconnect the appliances or turn off the power if the person is undergoing electric shock.

Cover associated electric shock burns with a dry sterile dressing only.

Never touch a person undergoing electric shock or you too could become a victim.

First Aid for Electric Shock Victims

Don't touch them!

Unplug the appliance or turn off the power at the control panel.

If you can't turn off the power, use a piece of wood, like a broom handle, dry rope or dry clothing, to separate the victim from the power source.

Do not try to move a victim touching a high voltage wire. Call for emergency help.

Keep the victim lying down. Unconscious victims should be placed on their side to allow drainage of fluids. Do not move the victim if there is a suspicion of neck or spine injuries unless absolutely necessary.

If the victim is not breathing, apply mouth-to-mouth resuscitation. If the victim has no pulse, begin cardiopulmonary resuscitation (CPR). Then cover the victim with a blanket to maintain body heat, keep the victim's head low and get medical attention.

First Aid for Electrical Burn Victims

Electrical burns vary in severity depending upon: (1) how long the body is in contact with the electric current; (2) the strength of the current; (3) the type of current; and (4) the direction the current takes through the body. Often these burns are deep. There may be more than one area burned. One area may be where the current entered the body and another may be where it left. Electrical burn wounds may look minor on the outside, but could be severe on the inside.

If a person has received an electrical burn, check for shock and follow the steps outlined above. If the person is conscious and there are no signs of shock (such as being cold, clammy, pale and having a rapid pulse), begin treating the burned area. Do not apply grease or oil to the burn. Cover the burn with a dry, sterile dressing, but do not cool the burn. Keep the victim from getting chilled. Seek medical attention as soon as possible.

# First Aid for Eyes

Proper first aid for eye injuries is critical. Eye injuries can occur when handling pesticides and other chemicals, using jumper cables, servicing farm equipment, welding or working in the fields. Always wear the proper eye protection for the task performed. Should an eye injury occur, seek proper first aid and medical attention.

Clean, fresh water for flushing the eyes should be available at all work sites.

Always wear proper eye protection for the task performed.

Fresh Water for Emergencies

Always have clean fresh water available for use in flushing out any chemicals that come in contact with the eyes. Carry five gallons of water on each nurse tank and applicator. Check the water container daily and keep full of clean, fresh water. Anyone handling ammonia or other hazardous farm chemicals should carry small squeeze bottles of clean water.

Specks in the Eyes

Lift the upper eyelid outward and down over the lower lid. Let tears wash out the speck or particle. If the speck or particle doesn't wash out, keep the eye closed, bandage it lightly and see a physician.

Blows to the Eye

Apply a cold compress immediately for 15 minutes and again each hour as needed to reduce pain and swelling. If there is discoloration or blackening of the eye, it could mean internal damage has occurred. See a physician.

Cuts and Punctures of the Eye or Eyelid

Bandage the eye lightly, and see a physician at once. Do not wash out the eye with water or try to remove an object stuck in the eye.

**Chemical Burns** 

Eye damage from chemical burns can be very serious. In all cases of eye contact with chemicals, flood the eye with water immediately, continuously and gently for at least 15 minutes. Hold the head under the faucet or pour water into the eye using a clean container. Keep the eye open as widely as possible during the flooding. Do not use an eye cup or bandage the eye. Do not apply ointments, oils or salves. See a physician and explain the cause of the injury. Also take the label or container to the physician with you.

Spray cans are an increasing source of chemical eye injury, compounded by the force of contact. Whether containing caustics or irritants, they must be carefully used and kept away from children.

First Aid for Head Injuries

The main concern in a head injury is that there may be bleeding inside the skull. This can occur even if the skull is not clearly damaged. The accumulation of blood may eventually put pressure on the brain and cause brain damage. Head injuries are often not serious, but brain injuries can be.

Any threat of brain damage from a head injury should be checked by a physician.

Ice applied to the bruised area will help control swelling.

Any vision problems or bleeding from the eyes or ears as a result of a head injury warrants a trip to a physician.

**Head Injury Guidelines** 

Answering the following questions will help to determine whether the victim should be taken to a physician, the emergency room, or treated at home.

Has unconsciousness, loss of memory about the injury, or a seizure occurred? If yes, seek medical attention.

Are any of the following present? visual problems, bleeding from eyes, ears or mouth, change in behavior (sleep, irritability, lethargy), fluid draining from nose, repeated vomiting, irregular breathing or heart rate, child under the age of 2, person under the influence of alcohol or other drugs, possible child or domestic abuse, If yes to any of the previous, seek medical attention.

Is there a cut? Check first aid section on cuts for severity.

If answers to the above questions are no, then apply home treatment.

Home Treatment for Head Injuries

Apply ice to the bruised area to minimize the swelling. A bump (goose egg) often develops. The size of the bump does not suggest the severity of the injury. A small bump may be serious, and a large bump may mean only a minor injury.

Observe the victim carefully. Symptoms of bleeding inside the head usually occur within the first 24 to 72 hours.

A typical minor head injury occurs when a victim runs into someone or something and bangs his or her head. A bump usually begins to form on the stunned victim. The person may vomit once or twice in the first few hours. He or she may nap after all the excitement, but arouse easily. Neither pupil is enlarged. Within eight hours, the person is back to normal, except for the prominent goose egg swelling.

TREATMENT FOR BURNS

Minor Burns

Hold burned area under cool running water for 15 minutes.

Do NOT apply ointments or butter.

Cover the area with dry gauze.

Do NOT pop blisters.

Consult a doctor if burns occur on the face, hands, genitalia, feet, or for any burn on an infant.

### Severe Burns

Have one person call 108 or the local emergency number while another person runs cool water over the burned area. Do NOT use ice.

Do NOT put ointment or grease on the burn and do NOT try to remove pieces of cloth from the burned area.

DO NOT break blisters.

DO NOT give the victim anything to eat or drink.

DO raise the burned limbs to minimize swelling.

DO keep the victim from being chilled or overheated.

### Prevention

Turn down the water heater to 120 degrees.

Test bath water before putting a child in it. If the water feels hot to you, it will burn a child.

Put the child in the bath with their back to the faucet so they can:t turn the water on.

Get knob covers for the bathroom tub.

#### CAUSES OF HOT WATER BURNS

About 50 percent occur because parents put children in water that is too hot.

Children turn the water faucet on or fall into a tub of hot water.

Deliberate abuse by parents.

Nearly 2 million people are treated for burns annually in the United States.

About 100,000 will be hospitalized, and nearly 12,000 will die.

About 112,000 of these burns are scald burns. According to Safe Kids Coalition, about 37,000 of these people are 14 or under, and about 18,000 are 5 or under.

The United States has the highest rate of burns in the industrialized world, according to the National Safety Council.

Burns are the second leading cause of death for young children ages 0 to 5.

Children burn faster than adults because they have thinner skin.

Everyday, 300 young children are taken to emergency rooms for burns caused by household water that was too hot. Annually, 3,000 of these children require hospitalization.

Water heaters leave the factory set at 140 to 150 degrees Fahrenheit. It takes 2 seconds for a child to receive third degree burns from water at 150 degrees. It takes 5 seconds if the water is at 140 degrees, and 30 seconds at 130 degrees.

### TO TEST YOUR WATER HEATER'S TEMPERATURE

Check it in the early morning before anyone has used the hot water.

Go into the kitchen and turn on the hot water tap and leave it running for two minutes.

Hold an outdoor thermometer or candy thermometer in the stream of running water until the temperature stops rising.

If the temperature is between 120 and 125, good.

If higher, find the thermostat on the water heater and turn it down.

Gas water heaters have an external thermostat, near the bottom.

Electric water heaters have two panels screwed to the top and bottom of the tank or one panel on the side. Set it to "low" or "Energy Efficient."

Wait 24 hours and then test the water temperature again to see it is in the safe range.

Consult a professional if the temperature did not go down.

# Objective:

To be able to identify symptoms of heat stroke and exhaustion, and know the emergency procedures for both.

Trainer's Note:

Heat stress is serious. Discuss measures that could prevent farm work related heat stress. Controlling heat stress is especially important to pesticide handlers and "early entry" workers who must wear protective gear, but heat stress can effect anyone!

# Background

Heat stress is a buildup of body heat generated either internally by muscle use or externally by the environment. Heat exhaustion and heat stroke result when the body is overwhelmed by heat . As the heat increases, body temperature and the heart rate rise painlessly. An increase in body temperature

of two degrees Fahrenheit can affect mental functioning. A five degree Fahrenheit increase can result in serious illness or death. During hot weather, heat illness may be an underlying cause of other types of injuries, such as heart attacks, falls and equipment accidents. More Worker's Compensation claims for heat illness come from agricultural workers than from any other occupation.

The most serious heat related illness is heat stroke. The symptoms are confusion, irrational behavior, convulsions, coma, and death. While over 20% of heat stroke victims die regardless of health or age, children seem to be more susceptible to heat strain than adults. In some cases, the side effects of heat stroke are heat sensitivity and varying degrees of brain and kidney damage.

Signs and symptoms of heat stroke and heat exhaustion

Preventing heat stress will:

Protect Health - Heat illness is preventable and treatable before it is life threatening.

Improve Safety - Any heat stress can impair functioning.

Increase Productivity - People work slower and less efficiently when they are suffering from heat stress.

Employers, supervisors and workers all have an essential role to play in preventing heat stress. Each member of the team should use good judgment to prevent heat related illness. A heat stress control program should protect all workers at the operation, from those who can work comfortably in heat to those in poor physical shape.

Key elements for controlling heat stress are:

Drink one glass of water every 15 to 30 minutes worked, depending on the heat and humidity. This is the best way to replace lost body fluid.

Read medication labels to know how cause the body to react to the sun and heat.

Avoid alcohol and drugs as they can increase the effects of heat.

Build up tolerance for working in the heat. Heat tolerance is normally built up over a one to two week time period.

Take breaks to cool down. A 10 - 15 minute break every two hours is effective.

Adapt work and pace to the weather.

Provide heat stress training to workers and supervisors.

Manage work activities and match them to employees' physical condition.

Use special protective gear, such as cooling garments and cooling vests on "early entry" workers.

Know heat stress first aid techniques.

Heat stroke first aid:

Move the victim to a cool place. Remove heavy clothing; light clothing can be left in place.

Immediately cool the victim by any available means. Such as placing ice packs at areas with abundant blood supply (neck, armpits, and groin). Wet towels or sheets are also effective. The cloths should be kept wet with cool water.

To prevent hypothermia continue cooling the victim until their temperature drops to 102 degrees Fahrenheit.

Keep the victim's head and shoulders slightly elevated.

Seek medical attention immediately. All heat stroke victims need hospitalization.

Care for seizures if they occur.

Do not use aspirin or acetaminophen.

Heat exhaustion first aid:

Move the victim to a cool place.

Keep the victim lying down with legs straight and elevated 8-12 inches.

Cool the victim by applying cold packs or wet towels or cloths. Fan the victim.

Give the victim cold water if he or she is fully conscious.

If no improvement is noted within 30 minutes, seek medical attention.

When possible, schedule heavy tasks and work requiring protective gear for cooler, morning or evening hours. Prolonged, extreme hot temperatures mandate the postponement of nonessential tasks.

Most protective garments limit sweat evaporation (but not sweat production) and chemical-resistant suits can cause rapid dehydration if sweat is not replaced. One way to slow the buildup of heat when wearing PPE is to use special cooling garments.

If the temperature is above 70 degrees Fahrenheit: Cooling vests may be useful when pesticide handlers are wearing chemical-resistant suits and are either doing heavy or moderate work for a prolonged period.

If the temperature is above 80 degrees Fahrenheit: Working in chemical-resistant suits for more than a half hour without taking frequent water and rest breaks is unsafe. Cooling garments and frequent breaks are recommended.

Powered air-purifying respirators and supplied-air respirators generally feel cooler than other types of respirators because breathing resistance is minimized and the airstream has a cooling effect.

**Review the Following Points** 

Heat stress is serious and should be handled as such.

As strain from heat increases, body temperature and heart rate can rise rapidly.

Exposure to heat can be serious to children and adults.

Have plenty of liquids available and administer first aid as needed.

Symptoms and First Aid for Poisonings

All poisonings are serious. Some poisonings require immediate attention before calling for help. Check labels for first aid information, and follow it immediately. Speed is crucial. Then contact your local Poison Control Center, physician or emergency personnel.

In the event of a poisoning, look for the container and contact professional help.

Make an attempt to wash off the poison from the affected area.

Administer Ipecac syrup if recommended by professionals.

Tell-Tale Signs of Poisonings

Things to watch for in a suspected poisoning include:

Unusual stains or odors on clothes or skin.

Unusual odor on breath.

Drowsiness, stomach pain, vomiting, sweating, drooling, irritability, signs of fear, or other sudden changes in behavior.

Drug or chemical containers that are open and/or out of place.

**Poisoning Symptoms** 

Each chemical family attacks the human body in a different way. General poisoning symptoms include the following.

Mild Poisoning

Headache, fatigue, weakness, dizziness, restlessness, perspiration, nausea, diarrhea, loss of appetite, loss of weight, thirst, moodiness, soreness in joints, skin irritation, eye irritation.

**Moderate Poisoning** 

Severe nausea, severe diarrhea, excessive saliva, stomach cramps, excessive perspiration, trembling, no muscle coordination and muscle twitches, extreme weakness, mental confusion, blurred vision, difficulty in breathing, cough, rapid pulse, flushed or yellow skin, weepy eyes.

Severe Poisonings

Fever, intense thirst, increased rate of breathing, uncontrollable muscle twitches, pinpoint pupils, convulsions, inability to breathe, unconsciousness.

Before calling for help, treat the following situations as suggested.

Poisons in the Eye

Eye membranes absorb chemicals quickly. This can lead to eye damage within minutes. Flood the eye with lukewarm (never hot) water poured from a large glass two or three inches from the eye. Continue for 15 minutes. Blink the eye as much as possible during the flooding. Do not force the eyelid open and do not allow the eyes to be rubbed.

If lukewarm water is not available, rinse the eye quickly using a gentle stream from a hose for at least 15 minutes.

Poisons on the Skin

If poisons come in contact with the skin, they must be removed as quickly as possible. Remove contaminated clothing and flood the skin area with water for 10 minutes. Then gently wash the skin area with soap and water and rinse. Later, destroy contaminated clothing.

For a chemical skin burn, rinse the area with lots of water, remove the clothes and cover with a soft, clean cloth. Do not apply grease or ointments.

#### **Inhaled Poisons**

Inhaled poisons are very serious because of the damage that can be done to the lungs and other tissues of the body. Minimize your risk of exposure, and immediately get the person to fresh air. Loosen the victim's clothing. Send someone for help as quickly as possible. If the victim is not breathing, start artificial respiration and continue it until the victim is breathing or help arrives. Open the doors and windows so no one else will be poisoned by the fumes.

#### **Swallowed Poisons**

Many different poisons can be swallowed. Look into the victim's mouth and remove all tablets, powder, or any material that may be present. Examine the mouth for cuts, burns, swelling, unusual coloring or odor. Rinse and wipe out the mouth with a cloth. If the person is awake and able to swallow, give one-half glassful of water.

# How to Induce Vomiting

The most important item to have in your home when poisoning occurs is Ipecac syrup, but never use it without the advice of the Poison Control Center or a physician. Ipecac is a plant extract that induces vomiting when swallowed. Vomiting is one way to remove the poison from the stomach, but your physician or the Poison control Center may not always recommend using Ipecac syrup. Do not use Ipecac without the advice of a physician or the Poison Control Center. Remember, never induce vomiting unless instructed to do so. This is especially important if the patient has swallowed petroleum products such as gasoline, cleaning fluids or lighter fluids. Never induce vomiting if the patient is drowsy or unconscious, is having convulsions, or has swallowed a strong corrosive such as drain cleaners, electric dishwasher detergent or acids. In this last case, give liquids only. Antidotes recommended on many product labels may be outdated or incorrect so never rely on them. In addition, salt water, mustard water and many other home remedies are ineffective and may be dangerous. Do not use them. Always consult a physician or the Poison Control Center before inducing vomiting.

### Ipecac Syrup

When instructed to use Ipecac Syrup by a physician or Poison Control Center, here are some things to remember. Before inducing vomiting, have a plastic bag handy. Bring the poison and its container to the hospital. Also, bring any stomach contents you collect. Give one tablespoon (15cc) to young children 1 to 6 years of age, and two tablespoons (30cc) to older children and adults. Follow the Ipecac Syrup with one cup of a noncarbonated beverage like water or juice. Encourage the patient to drink more fluids, if necessary. Do not allow the patient to lie down. Keep him or her active. Motion

helps to cause vomiting, which will usually occur in less than 15 minutes. If the patient has not vomited within 15 to 20 minutes, give a second dose of Ipecac Syrup and more liquid.

Calling for Help

Call the Northern New England Poison Control Center at 1-800-222-1222 or your physician. Identify yourself and give your relationship to the patient. Give your telephone phone number; describe the patient by name, age and sex. If possible, have the container or poison in your hand and identify it as best you can. If possible, explain what was taken, when and how much. Describe how the patient is acting. Be prepared to answer any additional questions asked. Follow the advice given by the Poison Control Center or physician

Identify yourself.

Describe the patient by name, age and sex.

Have the container or poison in your hand.

Explain how poison was taken.

# https://www.mayoclinic.org/first-aid

Anaphylaxis: First aid

Overview

A life-threatening allergic reaction called anaphylaxis can cause shock, a sudden drop in blood pressure and trouble breathing. In people who have an allergy, anaphylaxis can happen minutes after exposure to a specific allergy-causing substance, called an allergen. Sometimes, there may be a delayed reaction, or anaphylaxis may happen without an obvious trigger.

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Some common anaphylaxis triggers include:

Foods such as peanuts, tree nuts, fish and shellfish.
Insect stings from bees, yellow jackets, wasps, hornets and fire ants.
When to seek emergency care
If you're with someone having an allergic reaction with signs of anaphylaxis, call 108 or your local medical emergency number right away.
Don't wait to see whether symptoms get better. Seek emergency treatment right away. Severe untreated anaphylaxis can lead to death within half an hour.
Get emergency treatment even if symptoms start to improve. After anaphylaxis, it's possible for symptoms to start again. Being watched in a hospital for several hours most often is needed.
Symptoms
Symptoms of anaphylaxis include:
Skin reactions, including hives, itching, and skin that becomes flushed or changes color.
Swelling of the face, eyes, lips or throat.
Narrowing of the airways, leading to wheezing and trouble breathing or swallowing.
A weak and rapid pulse.
Nausea, vomiting or diarrhea.
Dizziness, fainting or unconsciousness.
Treatment
After you call 108 or your local medical emergency number, do the following:
Ask if the person is carrying an epinephrine autoinjector (EpiPen, Auvi-Q, others) to treat an allergic attack.
If the person needs to use an autoinjector, ask whether you should help inject the medicine. This

most often is done by pressing the autoinjector against the person's thigh.

If there's vomiting or bleeding from the mouth, turn the person to the side to prevent choking.

Loosen tight clothing and cover the person with a blanket.

Have the person lie face up and be still.

Medicines.

Latex.

If there are no signs of breathing, coughing or movement, begin CPR. Keep doing about 100 chest presses every minute until paramedics arrive.

An antihistamine pill, such as diphenhydramine (Benadryl), isn't enough to treat anaphylaxis. These medicines can help relieve allergy symptoms, but they work too slowly in a severe reaction.

What to avoid

Don't give a person who has anaphylaxis anything to drink.

When to call your doctor

If you've had any kind of severe allergic reaction in the past, ask your healthcare professional if you should be prescribed an epinephrine autoinjector to carry with you.

Animal bites: First aid

Overview

Animal bites might be caused by pets — such as cats, dogs, hamsters and turtles. Or bites may be from farm animals or wild animals. The type of care needed depends on how deep the bite is and the type of animal that caused it.

You may need medicine to fight infection. Or you may need a tetanus shot or rabies shots. Wild animals that may carry rabies are coyotes, foxes, raccoons, skunks, bats and others. Outdoor pets may carry rabies if they are sick, unvaccinated, stray and living in areas where rabies occur in pets.

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Treatment

To care for a minor animal bite or claw wound, such as one that only breaks the skin, take these steps:

Wash the wound with soap and water.

Apply an antibiotic cream or ointment and cover the bite with a clean bandage.

When to call your doctor

Seek prompt medical care if:

The wound is a deep puncture or you're not sure how serious it is.

The skin is badly torn, crushed or bleeding severely. First apply pressure with a bandage or clean cloth to stop the bleeding.

You notice increasing swelling, skin color changes, pain or oozing. These are signs of infection.

You aren't sure whether the animal that bit you has rabies. Bats often carry rabies and can infect humans without leaving obvious signs of a bite. This is why the Centers for Disease Control and Prevention recommends that people in contact with bats seek medical advice about rabies shots. This is a good idea even if they don't think they've been bitten.

If you haven't had a tetanus shot in the past five years and the wound is deep or dirty, your healthcare professional may recommend a booster. Get a booster shot within 48 hours of your injury.

If the wound was caused by a cat or a dog, try to confirm that its rabies vaccination is up to date. If it was caused by a wild animal, seek advice from your doctor about which animals are most likely to carry rabies.

Black eye

**SECTIONS** 

Overview

A black eye is bruising caused by bleeding in the tiny blood vessels in the skin surrounding the eye. Most injuries that cause a black eye aren't serious. But a black eye could be a symptom of a more serious injury, such as an internal injury to the eye or a fracture of the thin bones around the eye. You may have a skull fracture if you have double vision, bruising around both eyes or bleeding from the nose.

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Treatment

To take care of a black eye:

Apply a cold compress soon after the injury. Using gentle pressure, place a cold pack, a cloth filled with ice — or even a bag of frozen vegetables — to the area around your eye. Take care not to press on the eye itself. Apply cold as soon as possible after the injury to reduce swelling. Repeat several times a day for a day or two.

Apply warm or hot compresses. This may be helpful after a few days when the swelling has gone down. Repeat several times a day for a day or two.

When to call your doctor

Seek medical help if you:

See blood in the white or colored parts of the eye.

Have vision problems, such as double vision or blurred vision.

Have severe pain, bruising around both eyes, or bleeding in an eye or from the nose.

Blisters: First aid

**SECTIONS** 

Overview

A blister is raised skin filled with clear fluid. Pressure, heat, moisture, friction or burns can cause a blister to form on the skin. For example, a blister may form on your heel when it rubs against the inside of a shoe. Or a blister may form on your thumb after you hold a kayak paddle.

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Blisters are usually minor injuries that you can treat yourself.

#### **Treatment**

If a blister isn't too painful, try to keep it from breaking open. Unbroken skin over a blister may provide a natural barrier to bacteria, and it decreases the risk of infection. Cover the blister with a bandage or moleskin. Moleskin is a durable fabric that can help protect blisters in high-friction areas.

Cut a piece of moleskin about 1 inch (2.5 centimeters) larger than your blister. Fold the nonsticky sides together and cut a half-circle that's about the size of your blister. When you unfold the moleskin, you have a hole in the middle that's about the size of your blister. Apply the moleskin over the blister, aligning your blister with the hole you made. Then cover the blister and moleskin with gauze.

To relieve blister-related pain, drain the fluid while leaving the skin above the blister in place. If you have diabetes or poor circulation, or tend to get infections, take extra care to prevent infection.

How to drain a blister and help prevent infection:

Wash your hands and the blister with soap and water.

Apply an antiseptic to the blister.

Clean a sharp needle with an antiseptic wipe or rubbing alcohol.

Use the needle to prick the blister in several spots near the edge. Let the fluid drain but leave the skin above the blister in place.

Apply an antibiotic ointment or petroleum jelly to the blister and cover it with a nonstick bandage or gauze pad.

After several days, cut away the dead skin. Use tweezers and scissors that you sterilize with an antiseptic wipe or rubbing alcohol. Apply more ointment and a bandage.

Check the area every day for infection.

When to call your doctor

Seek medical care if the blister looks infected. Signs of infection include expanding skin color changes that spread out from the blister, increasing pain, pus or warm skin.

Prevention

These tips can help prevent blisters:

Wear shoes that fit well. Try the various shoes and insoles that are designed to help reduce blistering.

Choose socks made with moisture-wicking fabric. Avoid cotton socks. Dust the inside of your socks with foot powder.

Before your activity, tape spots that tend to get blisters. Athletic tape and duct tape work well for this.

Place moleskin or gel-filled blister bandages inside your shoes for extra padding.

Select gloves suited for your activity.

If you develop a hot spot, that's a sign that a blister is forming. Treat it right away by applying tape, a blister bandage or moleskin.

Change into dry socks as needed, as moisture increases the risk of blisters forming.

Bruise: First aid

**SECTIONS** 

Overview

A bruise forms when blood vessels under the skin break. The trapped blood creates a bruise that's black, purple or blue then changes color as it heals.

Treatment

You can enhance bruise healing with a few simple techniques.

Elevate the bruised area above heart level, if possible.

Apply an ice pack wrapped in a thin towel. Leave it in place for 20 minutes. Repeat several times for a day or two after the injury. This helps to reduce the swelling and pain.

If the bruised area is swelling, put an elastic bandage around it, but not too tight.

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If the skin isn't broken, you don't need to bandage a bruise. Consider taking a nonprescription pain reliever if needed.

Consult a healthcare professional if you:

Have very painful swelling in the bruised area.

Suspect a bruise has been caused by child abuse, domestic violence or elder abuse.

Still have pain three days after a minor injury.

Have frequent, large or painful bruises.

Have bruises that begin suddenly or seem to develop for no reason.

Have a personal or family history of easy bruising or bleeding.

Notice a lump form over the bruise, which may be a sign of pooling blood, also called a hematoma.

Have unusual bleeding, such as from the nose or gums.

Burns: First aid

**SECTIONS** 

Overview

Burns are tissue damage from a variety of sources. Examples are hot liquids, the sun, flames, chemicals, electricity and steam. Kitchen-related injuries from hot drinks, soups and microwaved foods are common among children.

Major burns need emergency medical help. Minor burns can usually be treated with first aid.

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When to seek emergency help

Call 108 or seek immediate care for major burns, which:

May be deep, involving all layers of the skin.

May cause the skin to be dry and leathery.

May appear charred or have patches of white, brown or black.

Are larger than 3 inches (about 8 centimeters) in diameter.

Cover the hands, feet, face, groin, buttocks or a major joint, or encircle an arm or a leg.

Are accompanied by smoke inhalation.

Begin swelling very quickly.

Electrical burns, including those caused by lightning, and major chemical burns need emergency medical care. A minor burn might need emergency care if it affects the eyes, mouth, hands or genitals. Babies and older adults might need emergency care for minor burns as well.

Treatment

Major burns

For major burns, apply first aid until emergency help arrives:

Protect the burned person from further harm. If you can do so safely, make sure the person you're helping is not in contact with the source of the burn. For electrical burns, make sure the power source is off before you approach the burned person.

Make certain that burned person is breathing. If needed, begin rescue breathing if you know how.

Remove jewelry, belts and other tight items, especially from the burned area and the neck. Burned areas swell quickly.

Cover the burn. Loosely cover the area with gauze or a clean cloth.

Raise the burned area. Lift the wound above heart level if possible.

Watch for symptoms of shock. Symptoms include cool, clammy skin, weak pulse and shallow breathing.

Minor burns

For minor burns, follow these first-aid guidelines:

Cool the burn. Hold the area under cool running water for about 10 minutes. If this isn't possible or if the burn is on the face, apply a cool, wet cloth until the pain eases. For a mouth burn from hot food or drink, put a piece of ice in the mouth for a few minutes.

Remove rings or other tight items. Try to do this quickly and gently, before the burned area swells.

Apply lotion. After the burn is cooled, apply a lotion, such as one with aloe vera or cocoa butter. This helps prevent drying.

Bandage the burn. Cover the burn with a clean bandage. Wrap it loosely to avoid putting pressure on burned skin. Bandaging keeps air off the area, reduces pain and protects blistered skin.

If needed, take a nonprescription pain reliever, such as ibuprofen (Advil, Motrin IB, others) or acetaminophen (Tylenol, others).

What to avoid

Don't use cold water to cool the burn.

Don't break blisters. Blisters help protect against infection. If a blister does break, gently clean the area with water and apply an antibiotic ointment.

Don't try to remove clothing stuck in the burn.

When to call your doctor

If you haven't had a tetanus shot in the past five years and the burn is deep, you may need a booster shot. Try to get this within 48 hours of the injury.

Cardiopulmonary resuscitation (CPR) is a lifesaving technique that's useful in many emergencies in which someone's breathing or heartbeat has stopped. For example, when someone has a heart attack or nearly drowns. The American Heart Association recommends starting CPR with hard and fast chest compressions. This hands-only CPR recommendation applies to both untrained bystanders and first responders.

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Here's advice from the American Heart Association:

Untrained. If you're not trained in CPR or worried about giving rescue breaths, then provide hands-only CPR. That means uninterrupted chest compressions of 100 to 120 a minute until paramedics arrive. Details are described below. You don't need to try rescue breathing.

Trained and ready to go. If you're well-trained and confident in your ability, check to see if there is a pulse and breathing. If there is no pulse or breathing within 10 seconds, begin chest compressions. Start CPR with 30 chest compressions before giving two rescue breaths.

Trained but rusty. If you've previously received CPR training but you're not confident in your abilities, then just do chest compressions at a rate of 100 to 120 a minute. Details are described below.

The above advice applies to situations in which adults, children and infants need CPR, but not newborns. Newborns are babies up to 4 weeks old.

CPR can keep oxygen-rich blood flowing to the brain and other organs until emergency medical treatment can restore a typical heart rhythm. When the heart stops, the body no longer gets oxygen-rich blood. The lack of oxygen-rich blood can cause brain damage in only a few minutes.

When to seek emergency help

If you are untrained and have immediate access to a phone, call 108 or your local emergency number before beginning CPR. The dispatcher can tell you how to do the proper procedures until help arrives. To learn CPR properly, take an accredited first-aid training course, including CPR and how to use an automated external defibrillator (AED).

If you're afraid to do CPR or unsure how to perform CPR correctly, know that it's always better to try than to do nothing at all. The difference between doing something and doing nothing could be someone's life.

**Treatment** 

Before starting CPR, check:

Is the environment safe for the person?

Is the person conscious or unconscious?

If the person appears unconscious, tap or shake their shoulder and ask loudly, "Are you OK?"

If the person doesn't respond and you're with another person who can help, have one person call 108 or the local emergency number and get the AED, if one is available. Have the other person begin CPR.

If you are alone and have immediate access to a telephone, call 108 or your local emergency number before beginning CPR. Get the AED if one is available.

As soon as an AED is available, deliver one shock if instructed by the device, then begin CPR.

Chest compressions

Enlarge image

Chest compressions Remember to spell C-A-B Airway being opened Enlarge image Open the airway Rescue breathing Enlarge image Rescue breathing The American Heart Association uses the letters C-A-B to help people remember the order to perform the steps of CPR. C: compressions A: airway B: breathing Compressions: Restore blood flow Compressions means you use your hands to push down hard and fast in a specific way on the person's chest. Compressions are the most important step in CPR. Follow these steps for performing CPR compressions: Put the person on their back on a firm surface.

Place the lower palm of your hand over the center of the person's chest, between the nipples.

Place your other hand on top of the first hand. Keep your elbows straight. Place your shoulders directly above your hands

Push straight down on the chest at least 2 inches (5 centimeters) but no more than 2.4 inches (6 centimeters). Use your entire body weight, not just your arms, when doing compressions.

Push hard at a rate of 100 to 120 compressions a minute. The American Heart Association suggests performing compressions to the beat of the song "Stayin' Alive." Allow the chest to spring back after each push.

If you haven't been trained in CPR, continue chest compressions until there are signs of movement or until emergency medical personnel take over. If you have been trained in CPR, go on to opening the airway and rescue breathing.

Airway: Open the airway

If you're trained in CPR and you've performed 30 chest compressions, open the person's airway using the head-tilt, chin-lift maneuver. Put your palm on the person's forehead and gently tilt the head back. Then with the other hand, gently lift the chin forward to open the airway.

Breathing: Breathe for the person

Rescue breathing can be mouth-to-mouth breathing or mouth-to-nose breathing if the mouth is seriously injured or can't be opened. Current recommendations suggest performing rescue breathing using a bag-mask device with a high-efficiency particulate air (HEPA) filter.

After opening the airway (using the head-tilt, chin-lift maneuver), pinch the nostrils shut for mouth-to-mouth breathing and cover the person's mouth with yours, making a seal.

Prepare to give two rescue breaths. Give the first rescue breath — lasting one second — and watch to see if the chest rises.

If the chest rises, give a second breath.

If the chest doesn't rise, repeat the head-tilt, chin-lift maneuver and then give a second breath. Thirty chest compressions followed by two rescue breaths is considered one cycle. Be careful not to provide too many breaths or to breathe with too much force.

Continue chest compressions to restore blood flow.

As soon as an automated external defibrillator (AED) is available, apply it and follow the prompts. Give one shock, then continue chest compressions for two more minutes before giving a second shock. If you're not trained to use an AED, a 108 operator or another emergency medical operator may be able to give you instructions. If an AED isn't available, go to step 7 below.

Continue CPR until there are signs of movement or emergency medical personnel take over.

To perform CPR on a child

The procedure for giving CPR to a child age 1 through puberty is essentially the same as that for an adult — follow the C-A-B steps. The American Heart Association says you should not delay CPR and offers this advice on how to perform CPR on a child:

Compressions: Restore blood flow

If you are alone and didn't see the child collapse, start chest compressions for about two minutes. Then quickly call 108 or your local emergency number and get the AED if one is available.

If you're alone and you did see the child collapse, call 108 or your local emergency number first. Then get the AED, if available, and start CPR. If another person is with you, have that person call for help and get the AED while you start CPR.

Place the child on their back on a firm surface.

Kneel next to the child's neck and shoulders.

Place two hands — or only one hand if the child is very small — on the lower half of the child's breastbone.

Using the heel of one or both hands, press straight down on the chest about 2 inches (approximately 5 centimeters) but not greater than 2.4 inches (approximately 6 centimeters). Push hard and fast — 100 to 120 compressions a minute.

If you haven't been trained in CPR, continue chest compressions until the child moves or until emergency medical personnel take over. If you have been trained in CPR, open the airway and start rescue breathing.

Airway: Open the airway

If you're trained in CPR and you've performed 30 chest compressions, open the child's airway using the head-tilt, chin-lift maneuver.

Place your palm on the child's forehead and gently tilt their head back.

With the other hand, gently lift the chin forward to open the airway.

Breathing: Breathe for the child

Follow these steps for mouth-to-mouth breathing for a child.

After using the head-tilt, chin-lift maneuver to open the airway, pinch the child's nostrils shut. Cover the child's mouth with yours, making a seal.

Breathe into the child's mouth for one second. Watch to see if the chest rises. If it rises, give a second breath. If the chest doesn't rise, repeat the head-tilt, chin-lift maneuver first. Then give the second breath. Be careful not to provide too many breaths or to breathe with too much force.

After the two breaths, immediately begin the next cycle of compressions and breaths. Note: If there are two people available to do CPR on the child, change rescuers every two minutes — or sooner if the rescuer is fatigued — and give one to two breaths every 15 compressions.

As soon as an AED is available, apply it and follow the prompts. Use pediatric pads for children older than 4 weeks old and up to age 8. If pediatric pads aren't available, use adult pads. Give one shock, then restart CPR — starting with chest compressions — for two more minutes before giving a second shock. If you're not trained to use an AED, a 108 operator or another emergency medical operator may be able to give you directions.

Continue until the child moves or help arrives.

To perform CPR on a baby 4 weeks old or older

Cardiac arrest in babies is usually due to a lack of oxygen, such as from choking. If you know that the baby has an airway blockage, perform first aid for choking. If you don't know why the baby isn't breathing, perform CPR.

First, evaluate the situation. Touch the baby and watch for a response, such as movement. Don't shake the baby.

If there's no response, call 108 or your local emergency number, then immediately start CPR.

Follow the compressions, airway and breathing method for a baby under age 1. Do not follow this procedure for newborns, which include babies up to 4 weeks old.

If you saw the baby collapse, get the AED, if one is available, before starting CPR. If another person is available, have that person call for help immediately and get the AED while you stay with the baby and perform CPR.

Compressions: Restore blood flow

Place the baby on their back on a firm, flat surface, such as a table or floor.

Imagine a horizontal line drawn between the baby's nipples. Place two fingers of one hand just below this line, in the center of the chest.

Gently compress the chest about 1.5 inches, which is about 4 centimeters.

Count aloud as you push in a fairly rapid rhythm. You should push at a rate of 100 to 120 compressions a minute, just as you would when giving an adult CPR.

Airway: Open the airway

After 30 compressions, gently tip the head back by lifting the chin with one hand and pushing down on the forehead with the other hand.

Breathing: Breathe for the baby

Cover the baby's mouth and nose with your mouth.

Prepare to give two rescue breaths. Use the strength of your cheeks to deliver gentle puffs of air, instead of deep breaths from your lungs. Gently puff a breath into the baby's mouth one time, taking one second for the breath. Watch to see if the baby's chest rises. If it does, give a second rescue breath. If the chest does not rise, repeat the head-tilt, chin-lift maneuver and then give the second breath.

If the baby's chest still doesn't rise, continue chest compressions.

Give two breaths after every 30 chest compressions. If two people are doing CPR, give one to two breaths after every 15 chest compressions.

Continue CPR until you see signs of life or until medical personnel arrive.

Chemical burns are tissue damage caused by strong acids, drain cleaners, paint thinner, gasoline and many other substances. Usually, you are aware of such a burn and its cause. But sometimes you may not immediately recognize a burn caused by a milder chemical. As with some sunburns, the damage may develop hours after the exposure.

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Major chemical burns need emergency medical help. Minor chemical burns can usually be treated with first aid.

When to seek emergency help

Call 108 or seek immediate care for major chemical burns, which:

May be deep, involving all layers of the skin.

Are larger than 3 inches (about 8 centimeters) in diameter.

Cover the hands, feet, face, groin, buttocks, or a major joint or encircles an arm or leg.

If you're unsure that you've been exposed to a toxic chemical, call a poison control center then call 108. In the United States, the Poison Help number is 800-222-1222. If you seek emergency medical help, take the container or the name of the chemical with you.

# Treatment

For major chemical burns, apply first aid as follows until emergency help arrives. For minor burns, take the same steps. A minor burn might need emergency care if it affects the eyes, mouth, hands or genital areas. Babies and older adults might need emergency care for minor burns as well.

Protect the burned person from further harm. Remove dry chemicals. Put on gloves and brush off any remaining material.

Remove contaminated clothing or jewelry and rinse chemicals off for at least 20 minutes, in a shower if it's available. Protect eyes from the chemicals.

Cover the burn. Loosely cover the area with gauze or a clean cloth.

Rinse again if needed. If the area is still painful, rinse for several more minutes.

For major burns, watch for signs of shock. Symptoms include cool, clammy skin, weak pulse and shallow breathing.

If a chemical splashes into your eye, take these steps immediately.

Flush your eye with water. Use clean, lukewarm tap water for at least 20 minutes. Use whichever of these approaches is quickest:

Get into the shower and aim a gentle stream of water on your forehead over your affected eye. Or direct the stream on the bridge of your nose if both eyes are affected. Hold the lids of your affected eye or eyes open.

Put your head down and turn it to the side. Then hold the lids of your affected eye open under a gently running faucet. If you have access to a work site eye-rinse station, use it.

Young children may do best if they lie down in the bathtub or lean back over a sink. Pour a gentle stream of water on the forehead over the affected eye or on the bridge of the nose to flush both eyes.

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Wash your hands with soap and water. Thoroughly rinse your hands to be sure no chemical or soap is left on them.

Remove contact lenses. If they don't come out during the flush, then take them out.

Caution

Don't rub the eye — this may cause further damage.

Don't put anything except water or contact lens saline rinse in the eye. And don't use eyedrops unless emergency personnel tell you to do so.

Seek emergency medical assistance

After following the above steps, seek emergency care by an eye specialist (ophthalmologist) or call 108 or your local emergency number. Take the chemical container or the name of the chemical with you to the emergency provider. If readily available, wear sunglasses to help reduce sensitivity to light.

First aid for chest pain depends on the cause. Serious health conditions such as a heart attack can cause chest pain. Other causes of chest pain include infections and bruised chest muscles. If you have new or sudden chest pain, get emergency medical help.

When to seek emergency help

Call 108 or your local emergency number if you have sudden severe chest pain or any unexplained chest pain that lasts more than a few minutes.

Also get emergency medical help if you have:

Sudden severe upper back or neck pain.

Sudden severe stomach pain.

Difficulty breathing.

Symptoms of stroke, including sudden change in vision, difficulty speaking, and weakness or loss of movement on one side of your body.

Swelling in one leg, which could be due to a blood clot.

Loss of consciousness or fainting.

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These symptoms can be caused by many different health conditions. Other symptoms not listed also may need emergency help. So it's important to get a quick diagnosis. If you feel like you can't breathe well or are having a heart attack, get medical help immediately.

**Symptoms** 

Symptoms of chest pain depend on the cause. Common examples include:

Heart attack

A heart attack generally causes chest pain for more than 15 minutes. The pain may be mild or severe. Some heart attacks happen suddenly. But sometimes warning symptoms happen hours or days in advance.

Heart attack symptoms may include:

Chest pain that may feel like pressure, tightness, pain, squeezing or aching.

Pain or discomfort that spreads to the shoulder, arm, back, neck, jaw, teeth or sometimes the upper belly.

Shortness of breath.

Cold sweats.

Fatigue.

Lightheadedness or sudden dizziness.

Heartburn.

Nausea.

In women, chest pain is not always severe or even the most noticeable symptom. Women tend to have more-vague symptoms, such as nausea or back or jaw pain. These symptoms may be more intense than the chest pain.

If you or someone else may be having a heart attack, follow these first-aid steps:

Call 108 or emergency medical help. If an ambulance or emergency vehicle can't come to you, have someone drive you to the nearest hospital. Drive yourself only if there are no other options.

Take aspirin, if recommended. Taking aspirin during a heart attack may reduce heart damage. Don't take an aspirin unless a healthcare professional says to do so. Don't delay calling 108 to take an aspirin. Call for emergency help first.

Take nitroglycerin, if prescribed. If you think you're having a heart attack and your healthcare professional has previously prescribed nitroglycerin for you, take it as directed. Don't take anyone else's nitroglycerin.

Start CPR if the person doesn't have a pulse or isn't breathing. If you're untrained in CPR, do hands-only CPR. That means push hard and fast on the person's chest about 100 to 120 times a minute. If you're trained in CPR and confident in your ability, start with 30 chest compressions before giving two rescue breaths.

Use an automated external defibrillator (AED) if one is immediately available and the person is unconscious. The device sends shocks to the heart to reset the heart rhythm. AEDs come with step-by-step voice instructions for their use. They only give a shock when appropriate.

**Angina** 

Angina is chest pain or discomfort caused by reduced blood flow to the heart. The chest pain may feel like:

Squeezing.

Pressure.

Something heavy on the chest.

Tightness or other discomfort.

Stable angina symptoms usually last five minutes or less. The symptoms usually go away with rest or medicine. If the angina pain doesn't go away with rest or medicine, get emergency medical help.

Pneumonia with pleurisy

Pneumonia is an infection of the air sacs in the lungs. Pleurisy is swelling and irritation of the tissues that surround the lung. Symptoms include:

Chest pain, especially when taking a breath or coughing.

Chills.

Fever.

Cough that may produce bloody or foul-smelling sputum.

Unlike a true heart attack, pleurisy pain usually goes away temporarily by holding your breath or by pressing on the painful area of your chest.

#### Pericarditis

Pericarditis is swelling and irritation of the thin, saclike tissue surrounding your heart. The main symptom is sharp chest pain that gets worse when you cough, lie down or take a deep breath.

# Chest wall pain

Chest wall pain is a type of muscle pain. Bruised chest muscles may happen from a lot of coughing, straining or a minor injury. One type of chest wall pain is costochondritis. Symptoms include pain and tenderness in and around the area that connects the ribs to the breastbone.

If gently touching the area with your fingers causes chest pain, it's unlikely that a serious condition, such as a heart attack, is the cause.

This article does not include all possible causes of chest pain. Talk to your healthcare professional if you are concerned about chest pain. If you think you're having a heart attack, get emergency medical help.

#### Treatment

Treatment depends on the specific cause of the chest pain. Some causes of chest pain, such as a heart attack, need emergency treatment. Chest pain symptoms from other causes, such as pericarditis, may go away without treatment.

When to call your doctor

Chest pain is a common reason that people seek medical treatment. It can be difficult to tell if chest pain is due to a heart attack or other health condition, especially if you've never had chest pain before. Don't try to diagnose the cause yourself.

Call your healthcare professional if you have new or unexplained chest pain. If you think you're having a heart attack, call 108 or your local emergency number.

A step-by-step guide explaining what to do in a choking emergency.

By Mayo Clinic Staff

Overview

# Five and five

Give five back blows

Give five abdominal thrusts



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# **Enlarge image**

First aid for a choking person



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# **Enlarge image**

How to perform abdominal thrusts, also called the Heimlich maneuver, on yourself Choking happens when an object lodges in the throat or windpipe blocking the flow of air. In adults, a piece of food is usually to blame. Young children often choke on small objects. Choking is lifethreatening. It cuts off oxygen to the brain.

Give first aid as quickly as possible if you or someone else is choking. To prepare yourself for these situations, learn the Heimlich maneuver and CPR in a certified first-aid training course.

# When to seek emergency help

If you're the only rescuer, give back blows and abdominal thrusts first. Then call 108 or your local emergency number for help. If another person is there, have that person call for help while you give first aid.

If you're alone and choking, call 108 or your local emergency number right away. Then, give yourself abdominal thrusts, also called the Heimlich maneuver, to remove the stuck object.

# **Symptoms**

Watch for these signs of choking:

- One or both hands clutched to the throat.
- A look of panic, shock or confusion.
- Inability to talk.
- Strained or noisy breathing.
- Squeaky sounds when trying to breathe.
- Cough, which may either be weak or forceful.
- Skin, lips and nails that change color turning blue or gray.
- Loss of consciousness.

#### **Treatment**

# Infant

To clear the airway of a choking infant younger than age 1:

- Sit and hold the infant facedown on your forearm. Rest your forearm on your thigh. Hold the infant's chin and jaw to support the head. Place the head lower than the trunk.
- Thump the infant gently but firmly five times on the middle of the back. Use the heel of your hand. Point your fingers up so that you don't hit the back of the infant's head. Gravity and the back thumps should release the blockage.
- Turn the infant faceup on your forearm if breathing hasn't started. Rest your arm on your thigh. Place the infant's head lower than the trunk.
- Give five gentle but firm chest compressions with your fingers. Place two fingers just below the nipple line. Press down about 1 1/2 inches. Let the chest rise between each compression.
- Repeat the back thumps and chest compressions if breathing doesn't start. Call for emergency medical help.
- Begin infant CPR if the airway is clear but the infant doesn't start breathing.

# **Child and adult**

If a choking person can cough forcefully, let the person keep coughing.

Coughing might naturally remove the stuck object.

If a person can't cough, talk, cry or laugh forcefully, give first aid to the person.

The American Red Cross recommends the following steps:

- **Give five back blows.** Stand to the side and just behind a choking adult. For a child, kneel down behind. Place your arm across the person's chest to support the person's body. Bend the person over at the waist to face the ground. Strike five separate times between the person's shoulder blades with the heel of your hand.
- **Give five abdominal thrusts.** If back blows don't remove the stuck object, give five abdominal thrusts, also known as the Heimlich maneuver.
- Alternate between five blows and five thrusts until the blockage is dislodged.

Some sources only teach the abdominal thrust. It's OK not to use back blows if you haven't learned the back-blow technique. Both approaches are acceptable for adults and children older than age 1.

# To give abdominal thrusts to someone else:

- **Stand behind the person.** For a child, kneel down behind. Place one foot slightly in front of the other for balance. Wrap your arms around the waist. Tip the person forward slightly.
- Make a fist with one hand. Put it just above the person's navel.
- **Grasp the fist with the other hand.** Press into the stomach, also called the abdomen, with a quick, upward thrust as if trying to lift the person up. For a child, use gentle yet firm pressure to avoid damaging the internal organs.
- Give five abdominal thrusts. Check if the blockage has been removed. Repeat as needed.

If you're the only rescuer, give back blows and abdominal thrusts first. Then call 108 or your local emergency number for help. If another person is there, have that person call for help while you give first aid.

If the person becomes unconscious, start standard cardiopulmonary resuscitation (CPR) with chest compressions and rescue breaths.

## To clear the airway of an unconscious person:

- Lower the person onto the floor, with the back on the floor and arms to the sides.
- Clear the airway. If you can see the object, reach a finger into the mouth to sweep out the object. Never finger sweep if you can't see the object. You risk pushing the blockage deeper into the airway. This is very risky with young children.
- **Begin CPR if the person still doesn't respond.** If the airway is still blocked, use chest compressions such as those that are used in CPR to remove the stuck object. Only use two rescue breaths per cycle. Recheck the mouth regularly for the object.

## Pregnant person or someone you can't get your arms around

If the person is pregnant or if you can't get your arms around the stomach, give chest thrusts:

- Put your hands at the base of the breastbone, just above the joining of the lowest ribs.
- **Press hard into the chest with a quick thrust.** This is the same action as the Heimlich maneuver.
- Repeat until the blockage is removed from the airway.

#### Yourself

## If you're alone and choking:

Call 108 or your local emergency number right away. Then, give yourself abdominal thrusts, also called the Heimlich maneuver, to remove the stuck object.

Place a fist slightly above your navel.

- Grasp your fist with the other hand.
- Bend over a hard surface. A countertop or chair will do.
- Shove your fist inward and upward.

A corneal abrasion is a superficial scratch on the clear, protective "window" at the front of the eye (cornea). The cornea can be scratched by contact with dust, dirt, sand, wood shavings, plant matter, metal particles, contact lenses or even the edge of a piece of paper.

Symptoms of corneal abrasion include:

- Pain
- Blurry vision
- A gritty feeling in the eye
- Tearing
- Redness
- Sensitivity to the light (photophobia)
- Headache

In case of a corneal abrasion, seek prompt medical attention. Left untreated, the abrasion could become infected and result in a sore known as a corneal ulcer. In the meantime, take these immediate steps:

- Rinse your eye with clean water or a saline solution. You can use an eyecup or a small, clean drinking glass positioned with its rim resting on the bone at the base of your eye socket. If you have quick access to a work site eye-rinse station, use it. Rinsing the eye may wash out a foreign object.
- Blink several times. This may remove small particles.
- Pull the upper eyelid over the lower eyelid. This may cause your eye to tear, which may help wash out the particle. Or it may cause the lashes of your lower eyelid to brush away an object from under your upper eyelid.

Use the following pointers to avoid making the injury worse:

- Don't try to remove an object that is embedded in your eye or makes your eye difficult to close.
- Don't rub your eye after an injury.
- Don't touch your eye with cotton swabs, tweezers or other instruments.
- If you use contact lenses, don't wear them while your eye is healing.

Most corneal abrasions heal in a few days but should be treated with antibiotic drops or ointment to reduce the risk of infection.

A step-by-step guide explaining what to do in a choking emergency.

By Mayo Clinic Staff

Overview

Enlarge image

First aid for a choking person

Enlarge image

How to perform abdominal thrusts, also called the Heimlich maneuver, on yourself

Choking happens when an object lodges in the throat or windpipe blocking the flow of air. In adults, a piece of food is usually to blame. Young children often choke on small objects. Choking is lifethreatening. It cuts off oxygen to the brain.

Give first aid as quickly as possible if you or someone else is choking. To prepare yourself for these situations, learn the Heimlich maneuver and CPR in a certified first-aid training course.

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### Treatment

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- Thump the infant gently but firmly five times on the middle of the back. Use the heel of your hand. Point your fingers up so that you don't hit the back of the infant's head. Gravity and the back thumps should release the blockage.
- Turn the infant faceup on your forearm if breathing hasn't started. Rest your arm on your thigh. Place the infant's head lower than the trunk.
- Give five gentle but firm chest compressions with your fingers. Place two fingers just below the nipple line. Press down about 1 1/2 inches. Let the chest rise between each compression.
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- Begin CPR if the person still doesn't respond. If the airway is still blocked, use chest compressions such as those that are used in CPR to remove the stuck object. Only use two rescue breaths per cycle. Recheck the mouth regularly for the object.

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If the person is pregnant or if you can't get your arms around the stomach, give chest thrusts:

- Put your hands at the base of the breastbone, just above the joining of the lowest ribs.
- Press hard into the chest with a quick thrust. This is the same action as the Heimlich maneuver.
- Repeat until the blockage is removed from the airway.

### Yourself

If you're alone and choking:

Call 108 or your local emergency number right away. Then, give yourself abdominal thrusts, also called the Heimlich maneuver, to remove the stuck object.

- Place a fist slightly above your navel.
- Grasp your fist with the other hand.
- Bend over a hard surface. A countertop or chair will do.
- Shove your fist inward and upward.

A corneal abrasion is a superficial scratch on the clear, protective "window" at the front of the eye (cornea). The cornea can be scratched by contact with dust, dirt, sand, wood shavings, plant matter, metal particles, contact lenses or even the edge of a piece of paper.

Symptoms of corneal abrasion include:

- Pain
- Blurry vision
- A gritty feeling in the eye
- Tearing
- Redness
- Sensitivity to the light (photophobia)
- Headache

In case of a corneal abrasion, seek prompt medical attention. Left untreated, the abrasion could become infected and result in a sore known as a corneal ulcer. In the meantime, take these immediate steps:

- Rinse your eye with clean water or a saline solution. You can use an eyecup or a small, clean drinking glass positioned with its rim resting on the bone at the base of your eye socket. If you have quick access to a work site eye-rinse station, use it. Rinsing the eye may wash out a foreign object.
- Blink several times. This may remove small particles.
- Pull the upper eyelid over the lower eyelid. This may cause your eye to tear, which may help wash out the particle. Or it may cause the lashes of your lower eyelid to brush away an object from under your upper eyelid.

Use the following pointers to avoid making the injury worse:

- Don't try to remove an object that is embedded in your eye or makes your eye difficult to close.
- Don't rub your eye after an injury.
- Don't touch your eye with cotton swabs, tweezers or other instruments.
- If you use contact lenses, don't wear them while your eye is healing.

Most corneal abrasions heal in a few days but should be treated with antibiotic drops or ointment to reduce the risk of infection.

#### Overview

Minor cuts and scrapes can often be treated at home. You may need to seek medical care if you notice the injury becomes infected.

#### Treatment

These guidelines can help you care for minor cuts and scrapes:

- 1. Wash your hands. This helps avoid infection.
- 2. Stop the bleeding. Minor cuts and scrapes usually stop bleeding on their own. If needed, gently press the wound with a clean bandage or cloth. Raise the area until the bleeding stops.
- 3. Clean the wound. Rinse the wound with water. Keeping the wound under running water will lower the risk of infection. Wash around the wound with soap. But don't get soap in the wound. And don't use hydrogen peroxide or iodine. Both can irritate wounds. Remove any dirt or debris with tweezers cleaned with alcohol. See a healthcare professional if you can't remove all debris.
- 4. Put on an antibiotic or petroleum jelly. Put on a thin layer of an antibiotic ointment or petroleum jelly to keep the surface moist and help prevent scarring. Ingredients in some antibiotic ointments can cause a mild rash in some people. If you get a rash, stop using the ointment.
- 5. Cover the wound. Put on a bandage, rolled gauze or gauze held in place with paper tape. Covering the wound keeps it clean. If you have just a minor scrape or scratch, don't cover it.
- 6. Change the covering. Do this at least once a day or whenever the covering becomes wet or dirty.

When to call your doctor

Seek medical care if:

- See a healthcare professional if you see signs of infection on the skin or near the wound. These include expanding changes in color, increasing pain, drainage, warmth or swelling.
- See a healthcare professional to get a tetanus shot. A tetanus shot is needed if you haven't had one in the past five years and the wound is deep or dirty.

Dislocation: First aid

Send to Kindle

Overview

A dislocation is an injury that forces the bones in a joint out of position. The cause is usually a fall, a car accident or an injury during contact sports.

Dislocation mostly involves the body's larger joints. The most common site of injury is the shoulder. For young children, the elbow is a common site. Smaller joints, such as the thumbs and fingers, also can be dislocated if bent the wrong way with force.

#### **Symptoms**

The injury will deform the joint and make it hard to move. Dislocation might cause sudden and severe pain and swelling. A dislocation needs prompt medical attention to put the bones back in place.

### Treatment

If you believe you have dislocated a joint:

- 1. Don't put off medical care. Get medical help as soon as you can.
- 2. Don't move the joint. Until you get help, use a splint to keep the affected joint from moving. Don't try to move a dislocated joint or force it back into place. This can damage the joint and the muscles, ligaments, nerves or blood vessels around it.
- 3. Put ice on the injured joint. This can help reduce swelling. Ice can control bleeding inside the body and keep fluids from building up in and around the injured joint.

How to administer first aid for an electrical burn

### Send to Kindle

Electrical burns may be caused by a number of sources of electricity. Examples include lightning, stun guns, and contact with job site or household current.

Minor electrical skin burns are treated like any other minor burn. Put a cool wet cloth on the area. Do not break any blisters. After you gently clean the skin, put a bandage on the area. If you have any questions about how severe the burn is, contact a health care provider.

## When to contact your doctor

A person who has been injured by contact with electricity should be seen by a health care provider. The damage may be worse than it looks from the burn on the skin. Sometimes an electrical injury can cause damage to skin, muscles, blood vessels and nerves, often in an arm or a leg. The heart, brain and other body organs can be damaged.

## Caution

- Don't touch the injured person if the person is still in contact with the electrical current.
- Call 108 or your local emergency number if the source of the burn is a high-voltage wire or lightning. Don't get near high-voltage wires until the power is turned off. Overhead power lines usually aren't insulated. Stay at least 50 feet (about 15 meters) away farther if wires are jumping and sparking.
- Don't drive over downed power lines. If a live electrical line contacts the vehicle you're in, stay in the vehicle. Call 108 or your local emergency number to disable the power line before touching any metal to try to exit the vehicle.
- Don't move a person with an electrical injury unless the person is in immediate danger.

When to seek emergency care

Call 108 or your local emergency number if the injured person experiences:

- Severe burns
- Confusion
- Difficulty breathing
- Irregular heart rhythm (arrhythmias)
- Does not have a pulse and is not breathing (cardiac arrest)
- Muscle pain and contractions
- Seizures
- Loss of consciousness

Take these actions immediately while waiting for medical help:

- Turn off the source of electricity if possible. If not, move the source away from both you and the injured person. Use a dry, nonconducting object made of cardboard, plastic or wood.
- Begin CPR if the person is not breathing, coughing or moving and doesn't have a pulse.
- Do not remove clothing or try to clean the burned area. Cover any burned areas with a sterile gauze bandage, if available, or a clean cloth or sheet. Don't use a blanket or towel, because fuzz or loose fibers can stick to the burns.
- Try to prevent the injured person from becoming chilled.

Electrical shock: First aid

Send to Kindle

Overview

The danger from an electrical shock depends on the type of current, how high the voltage is, how the current traveled through the body, the person's overall health and how quickly the person is treated.

An electrical shock may cause burns, or it may leave no visible mark on the skin. In either case, an electrical current passing through the body can cause damage inside the body, cardiac arrest or other injury. Sometimes, even a small amount of electricity can be fatal.

When to seek emergency care

Call 108 or your local emergency number if the injured person has:

- Severe burns.
- Confusion.
- Difficulty breathing.
- Heart rhythm problems.
- Cardiac arrest.

- Muscle pain and contractions.
- Seizures.
- Loss of consciousness.

Take this action right away while waiting for medical help:

• Turn off the source of electricity, if possible. If not, use a dry, nonconducting object made of cardboard, plastic or wood to move the source away from you and the injured person.

#### Treatment

- Begin CPR if the person shows no signs of circulation, such as breathing, coughing or movement.
- Try to prevent the injured person from becoming chilled.
- Apply a bandage. Cover any burned areas with a sterile gauze bandage, if available, or a clean cloth. Don't use a blanket or towel because loose fibers can stick to the burns.

#### What to avoid

- Don't touch an injured person who is still in contact with an electrical current.
- Call 108 or your local emergency number if the source of the burn is a high-voltage wire or lightning. Don't get near high-voltage wires until the power is turned off. Overhead power lines usually aren't insulated. Stay at least 20 feet (about 6 meters) away farther if wires are jumping and sparking.
- Don't move a person with an electrical injury unless there is immediate danger.

When to call your doctor

A person who has been injured by contact with electricity should see a healthcare professional.

Here are your survival kit essentials

## Send to Kindle

Emergency essentials kits can help you respond to natural disasters or other serious situations. Prepare for the unexpected by putting together a survival kit that could be useful if you needed to evacuate your home. Pack enough supplies to last three days, and keep your emergency essentials handy. Make sure your family members know where to find the kit. Consider keeping basic emergency essentials in your car as well.

A basic emergency essentials kit includes:

- Small, waterproof flashlight or headlamp and extra batteries
- Waterproof matches
- Water, 1 gallon a person for each day
- Food that won't spoil, including baby food if needed
- Manual can opener for food
- Pet food and supplies, such as a leash, if needed

- Small notepad and waterproof writing instrument
- Blanket
- Cellphone with solar charger
- Battery-powered or hand-cranked radio and a weather radio with tone alert and extra batteries for both
- Insect repellent
- Whistle
- First-aid kit
- Dust mask
- Plastic sheeting and duct tape for improvised shelter
- Wrench or pliers to turn off utilities
- Medicine, a week's supply
- Extra medical supplies or equipment, as needed
- Soap, toothbrush, feminine supplies and other personal care items
- Moist towelettes, garbage bags and plastic ties for personal sanitation
- Emergency health information for you and your family
- Phone numbers for professional emergency contacts, such as your family doctor and pediatrician
- Phone numbers for a personal emergency contact, such as a friend or a family member you've asked to serve in this role
- Copy of insurance cards
- Cash or traveler's checks and change
- Maps of the area
- An extra set of car keys and house keys

Are your emergency health records accessible and up-to-date?

### Send to Kindle

When an emergency happens, whether it's a heart attack or a hurricane, it's critical that medical service providers have access to health information for anyone who needs assistance.

While you can't predict when an emergency may happen, you can be prepared. Make sure that key health information is up to date, accurate and handy.

Nowadays, you may find it useful to store this information in an online patient health record and share it with your doctor and emergency contact person. In fact, you may already have access to a patient portal, which is an electronic health information tool offered by many insurance companies, employers and health care institutions.

If you have children, it is important to handle their emergency health information similarly. You may not be available to provide needed information in an emergency.

Include in your health record, whether digital or paper, the following information:

- Your name, age and sex
- Your address
- Your medication names, doses and schedules
- Your medical equipment
- Your chronic medical conditions, such as epilepsy
- Medical consent form
- Aspects of your health history that could be helpful to emergency medical responders, including allergies and immunization record
- Phone numbers for professional emergency contacts, such as your family doctor, local emergency services, emergency road service providers, and the regional poison control center
- Phone numbers for a personal emergency contact, such as a friend or a family member who you've asked to serve in this role

## Online storage

Many people store their personal health information online with the help of an app or a service. This method allows you to access your information anywhere with a computer or a mobile device. Some tools also help you share information with your doctors, family or emergency contact person. The most important thing is to make sure it can be made readily available in an emergency or if you're unconscious.

Two options for storing your information online include:

- Free or subscription-based personal health record. A personal health record (PHR) includes your most important health information. It's like the electronic health record that your doctor may keep for you. But with a PHR, you maintain it and determine who has access to it.
- Patient portals. Many health care providers, insurance companies and employers offer their clients or staff access to their electronic health record via patient portals.

### Other storage options

- Print versions. If you choose to maintain your emergency health information on paper, keep a number of print copies in handy places. For example, put a copy in your purse, vehicle glove box, first aid kit and emergency kit. You could even try making one small enough to fit in your wallet or on an index card. Consider posting the index card on your refrigerator door so emergency personnel can see it quickly if needed.
- Portable digital device. Put the list on a cell phone, thumb drive or other device that you keep with you.

Fainting: First aid

Send to Kindle

Fainting occurs when the brain doesn't receive enough blood for a brief time. This causes loss of consciousness. Consciousness is usually regained quickly.

Fainting might have no medical significance. Or the cause can be a serious disorder, occasionally involving the heart. Therefore, treat loss of consciousness as a medical emergency until the symptoms are relieved and the cause is known. Talk to your health care provider if you faint more than once.

### If you feel faint

- Lie down or sit down. To reduce the chance of fainting again, don't get up too quickly.
- Place your head between your knees if you sit down.

### If someone else faints

• Position the person on the back. If there are no injuries and the person is breathing, raise the person's legs above heart level if possible. Prop up the person's legs about 12 inches (30 centimeters). Loosen belts, collars or other tight clothing.

To reduce the chance of fainting again, don't get the person up too fast. If the person doesn't regain consciousness within one minute, call 108 or your local emergency number.

• Check for breathing. Check for a pulse and to see if the person is breathing. If the person is not breathing, begin CPR. Call 108 or your local emergency number. Continue CPR until help arrives or the person begins to breathe.

If the person was injured in a fall associated with a faint, treat bumps, bruises or cuts appropriately. Control bleeding with direct pressure.

Fever: First aid

Send to Kindle

## Overview

A fever is a rise in body temperature. It's often a sign of infection. Fever itself most often is harmless and it may play a role in fighting infection. Most fevers don't need treatment.

The average body temperature is 98.6 Fahrenheit (37 Celsius). But typical body temperature can range between 97 F (36.1 C) and 99 F (37.2 C) or more. Your body temperature can vary by how active you are, your age or the time of day. Most often, older people have lower body temperatures than younger people have.

These thermometer readings are thought to be a fever:

- Rectal, ear or temporal artery temperature of 100.4 F (38 C) or higher.
- Oral temperature of 100.4 F (38 C) or higher.
- Armpit temperature of 99 F (37.2 C) or higher.

When to seek emergency care

For a baby who's less than 3 months old and has a fever, get medical help right away.

Also, seek emergency medical care for a child who has any of these symptoms after being left in a hot car. These may be symptoms of a heat-related illness.

- Fever with no sweating or heavy sweating.
- Bad headache.
- Seizures.
- Stiff neck.
- Confusion.
- Repeated vomiting or diarrhea.
- Being irritable.
- Any symptoms that worry you.

### Treatment

The main goal of treatment is to improve comfort and help you or your child rest.

#### Infant and child

Children with fevers may not look or act sick. Treating a fever depends on how uncomfortable they are. If your child is uncomfortable or restless, these home care strategies may help:

- Have your child drink fluids.
- Dress your child in light clothing.
- Use a light blanket if your child feels chilled, until the chills end.
- If your child is 6 months old or older, give your child acetaminophen (Tylenol, others) or ibuprofen (Advil, Motrin, others). Read the label carefully for proper dosing. If your child has other health problems or takes medicine for them, check with your healthcare professional before using fever medicines.

#### Adult

Adults with fevers of 103 F (39.4 C) or higher will most often look and act sick. To treat a fever:

- Drink plenty of fluids.
- Dress in light clothing.
- Use a light blanket if you feel chilled, until the chills end.
- Take acetaminophen (Tylenol, others) or ibuprofen (Advil, Motrin IB, others). Follow the directions on the label. If you have other health problems or take medicine for them, check with your healthcare professional before using fever medicines.

### What to avoid

- Don't give aspirin to children or teenagers.
- Don't give an infant any type of pain reliever until after you've talked with a healthcare professional.

### When to call your doctor

Seek medical care if a child of any age shows any of the following:

- Fussiness or unusual behavior that doesn't improve even after taking medicine to bring down the fever.
- Symptoms of water loss, called dehydration. These include no wet diapers over 8 to 10 hours, crying without tears, a dry mouth or refusing to drink fluids.
- Stiff neck or a headache.
- Belly pain.
- Trouble breathing.
- Rash.
- Joint pain or swelling.
- Fever that lasts more than five days.

Seek medical care for an adult with a fever and any of the following:

- Trouble breathing.
- Chest pain.
- Bad headache or stiff neck.
- Being confused.
- Belly pain.
- Repeated vomiting.
- Symptoms of water loss, called dehydration. These include having a dry mouth, making less or dark urine, or not drinking fluids.
- Skin rashes.
- Trouble swallowing fluids.
- Pain with passing urine or pain in the back.

Fahrenheit-Celsius conversion table

Fahrenheit		Celsius
105	40.6	
104	40.0	
103	39.4	
102	38.9	
101	38.3	
100	37.8	
99	37.2	
98	36.7	

97 36.1

96 35.6

How to take a temperature

Always use a digital thermometer to check someone's temperature. Types you can get include:

- Rectal thermometers for use in the rectum.
- Oral thermometers for use in the mouth.
- Temporal artery thermometers. These use an infrared scanner to measure the temperature of the temporal artery in the forehead.
- Armpit, called axillary, and ear, called tympanic membrane thermometers. These are less accurate.

Because of the dangers of being exposed to mercury, don't use a glass mercury thermometer.

No matter which type of thermometer you use, do the following when using it:

- Read the instructions that came with the thermometer.
- Clean the thermometer before and after each use with rubbing alcohol or soap and lukewarm water.
- Don't use the same thermometer for both oral and rectal temperatures. Get two and label which is used where.
- Never leave children alone while taking their temperature.

Rectal temperature (for infants)

- Turn on the digital thermometer and dab petroleum jelly or another lubricant on the tip of the thermometer.
- Lay the child on his or her stomach or side, with knees flexed.
- Carefully insert the tip 1/2 to 1 inch (1.3 to 2.5 centimeters) into the rectum.
- Hold the thermometer and the child still until the thermometer beeps, which means it's done. To avoid injury, don't let go of the thermometer while it's inside the child.
- Remove the thermometer and read the number.

### Oral temperature

- Turn on the digital thermometer. Place the thermometer tip under the tongue.
- Close the mouth around the thermometer for as long as instructed or until the thermometer beeping shows it's done.
- Remove the thermometer and read the number.

Temporal artery temperature

Turn on the digital thermometer. Gently sweep it across the forehead and read the number.

Armpit temperature

- Turn on the digital thermometer. Place the thermometer under the armpit, making sure it touches skin, not clothing.
- Hold the thermometer tightly in place until you hear the thermometer beep, which means it's done.
- Remove the thermometer and read the number.

### Ear temperature

- Turn on the digital thermometer. Gently place it in the ear canal only as far as the instructions that came with the device say to.
- Hold the thermometer tightly in place until you hear the thermometer beep, which means it's done.
- Remove the thermometer and read the number.

First aid for food poisoning

Send to Kindle

All foods naturally contain small amounts of bacteria. But improper handling, cooking or storage of food can result in bacteria multiplying in large enough numbers to cause illness. Parasites, viruses, toxins and chemicals also can contaminate food and cause illness.

Symptoms of food poisoning vary with the source of contamination. Generally they include:

- Diarrhea, which may be bloody
- Nausea
- Abdominal pain
- Vomiting
- Dehydration
- Low-grade fever (sometimes)

If you are very dehydrated, you might notice:

- Feeling lightheaded or faint, especially when you stand up
- Fatigue
- Dark-colored urine
- Less frequent urination
- Excessive thirst

Whether you become ill after eating contaminated food depends on the organism, the amount of exposure, your age and your health.

High-risk groups include:

• Older adults. As you get older, your immune system may not respond as quickly and as effectively to infectious organisms as it once did.

- Infants and young children. Their immune systems haven't fully developed.
- People with chronic diseases. Having a chronic condition, such as diabetes or AIDS, or receiving chemotherapy or radiation therapy for cancer, reduces your immune response.
- Pregnant people. Pregnancy alters your immune system, making it harder to fight off infections that may affect you and your developing baby.

If you develop food poisoning:

- Sip liquids, such as a sports drink or water, to prevent dehydration. Drinking fluids too quickly can worsen nausea and vomiting, so try to take small frequent sips over a couple of hours instead of drinking a large amount at once.
- Take note of urination. You should be urinating at regular intervals, and your urine should be light and clear. Infrequent passage of dark urine is a sign of dehydration. Dizziness and lightheadedness also are symptoms of dehydration. If any of these symptoms occur and you can't drink enough fluids, seek medical attention.
- Avoid anti-diarrheal medications. They may slow your body's removal of organisms or toxins from your system. If in doubt, check with your doctor about your particular situation.

Do not give infants or young children anti-diarrheal medications because of potentially serious side effects.

Foodborne illness often improves on its own within a few days.

Call your doctor if:

- Vomiting persists for more than two days
- Diarrhea persists for more than several days
- Diarrhea turns bloody, black or tarry
- Fever is 101 F (38.3 C) or higher
- Lightheadedness or fainting occurs with standing
- Confusion develops
- Worrisome abdominal pain develops

Seek emergency medical assistance if:

- You have severe symptoms, such as severe abdominal pain or watery diarrhea that turns very bloody within 24 hours.
- You belong to a high-risk group.
- You suspect botulism poisoning. Botulism is a potentially fatal food poisoning that results from the ingestion of a toxin formed by certain spores in food. Botulism toxin is most often found in home-canned foods, especially green beans or tomatoes.

Symptoms of botulism usually begin 12 to 36 hours after eating the contaminated food and may include headache, blurred vision, muscle weakness and eventual paralysis. Some people also have nausea and vomiting, constipation, urinary retention, difficulty breathing, and a dry mouth. These symptoms require immediate medical attention.

Foreign object in the ear: First aid

Send to Kindle

If left untreated, a foreign object in the ear can cause pain, infection and hearing loss.

By Mayo Clinic Staff

Overview

A foreign object in the ear can cause pain, infection and hearing loss. Most often, you know if something is stuck in your ear. But small children may not be aware of it. Children may have ear pain and be cranky or cry.

When to seek emergency help

If there is bleeding, severe pain, drainage or signs of infection, seek help right away. Also, if you know the object is a battery, seek help right away.

Treatment

To remove a foreign object from an ear:

- Use tweezers. If the object is easy to see and grasp, gently remove it with tweezers.
- Use water. Only wash out the ear canal if you don't think there is a hole in the eardrum and no ear tubes are in place. Use a rubber-bulb syringe and warm water to wash the object out of the canal. Don't use water to remove batteries, food or plant material.
- Use oil or alcohol for an insect. If the object is an insect, tilt the head so that the ear with the insect is upward. Pour alcohol or warm, but not hot, oil into the ear. The oil can be mineral oil, olive oil or baby oil. The insect should float out. Don't use oil if you think there is a hole in the eardrum or if ear tubes are in place.

What to avoid

- Never poke or prod the object. If you use tools such as cotton swabs or matchsticks to pry an object out, they can push it deeper into the ear. This may cause more damage.
- Never use liquid if there is a hole in the eardrum or if a child has ear tubes. If you see signs of a hole in the eardrum such as pain, bleeding or discharge, see a healthcare professional right away.

When to call your doctor

If you can't easily see the object and you've tried removing it more than once, stop and get care. Delays and failed tries to remove it can lead to infection and damage.

After you remove the object, if there's still pain, discharge from the ear canal, problems hearing or feeling there is something lodged in the ear, see a healthcare professional.

Foreign object in the eye: First aid

Send to Kindle

If you get a foreign object in your eye

• Wash your hands with soap and water.

- Try to flush the object out of your eye with a gentle stream of clean, warm water. Use an eyecup or a small, clean drinking glass positioned with its rim resting on the bone at the base of your eye socket.
- Another way to flush a foreign object from your eye is to get into a shower and aim a gentle stream of lukewarm water on your forehead over the affected eye while holding your eyelid open.
- If you're wearing contact lenses, it's best to remove the lens before or while you're irrigating the surface of the eye with water. Sometimes a foreign body can be stuck to the undersurface of the lens.

To help someone else

- Wash your hands with soap and water.
- Seat the person in a well-lighted area.
- Gently examine the eye to find the object. Pull the lower lid down and ask the person to look up. Then hold the upper lid while the person looks down.
- If the object is floating in the tear film on the surface of the eye, try using a medicine dropper filled with clean, warm water to flush it out. Or tilt the head back and irrigate the surface of the eye with clean water from a drinking glass or a gentle stream of tap water.

### Caution

- Don't try to remove an object that's embedded in the eye.
- Don't rub the eye.
- Don't try to remove a large object that appears to be embedded in the eye or is sticking out between the lids.

When to seek emergency care

Get immediate medical help if:

- You can't remove the object with simple irrigation
- The object is embedded in the eye
- The person with the object in the eye is experiencing abnormal vision
- Pain, redness or the sensation of an object in the eye persists more than 24 hours after the object is removed

Keep in mind that sometimes an object can scratch your eye. This often feels as though the object is still in the eye even after the object has been removed. This sensation can sometimes take 24 hours to go away.

Foreign object in the nose: First aid

Send to Kindle

Overview

If a foreign object becomes stuck or lodged in the nose, follow the steps below.

Treatment

- Remove right away if the object is a magnet, battery or expands when wet. These objects can cause severe tissue damage in just hours. If it's stuck and you can't remove it easily, seek emergency care.
- Blow out of your nose. The puff of air might free the object. This also is called positive pressure. Don't blow hard or constantly. If the object is stuck in only one nostril, gently close the other nostril with your finger. Then, blow out gently but firmly through the affected nostril.
- Try the "parent's kiss." If an object is stuck in your child's nose, place your mouth over your child's mouth to create a seal. Then, give a short, sharp puff of air into your child's mouth. The air should push the object out of your child's nose. If the object is stuck in one nostril, gently close the other nostril with your finger. Then, blow into your child's mouth.
- Use tweezers only if the object is easy to see and grasp. Don't try this method if you can't easily see or grasp the object. Try blowing air out of the nose first. This might free the object without tweezers.

### What to avoid

- Don't poke or prod the object. Fingers, cotton swabs and other tools might cause swelling and more damage. If the object is pushed deeper into the nose, it may be harder to remove. And it could cause choking.
- Don't inhale the object. You might choke. Instead, breathe through your mouth until the object is removed.
- Don't wash out the object. You might choke if the object is washed into the airway. Also, some objects may cause more damage when wet.

## When to call your doctor

- Seek help right away if you see symptoms of infection. Or if you can't remove the object on the first try.
- Call for emergency medical assistance or go to your local emergency room if these methods fail. Delays and many failed tries to remove a stuck object can lead to infection and damage. Also see a member of your care team if you see symptoms of infection.

Foreign object in the skin: First aid

## Send to Kindle

#### Overview

A foreign object in the skin might be anything from a tiny wood splinter to a large, jagged piece of glass. Serious wounds can be deep and dangerous with severe bleeding and a risk of infection.

Seek prompt medical help for a foreign object that is very painful or is deeply embedded in the skin or muscle. Follow these precautions and steps first:

- Don't try to remove the object. Doing so could cause further harm.
- Bandage the wound. First put a piece of gauze over the object. Then put clean padding around the object before binding the wound securely with a bandage or a piece of clean cloth. Take care not to press too hard on the object.

### Treatment

You can usually safely remove a small foreign object that's just under the surface of the skin. Examples of such an object are a wood splinter, thorn, and fragment of fiberglass. Follow these first-aid steps:

- Wash your hands and clean the area well with soap and water.
- Use tweezers cleaned with rubbing alcohol to remove the object. Use a magnifying glass to help you see better.
- If the object is under the surface of the skin, sterilize a clean, sharp needle by wiping it with rubbing alcohol. Use the needle to gently break the skin over the object and lift up the tip of the object.
- Use a tweezers to grab the end of the object and remove it.
- Wash the area again and pat dry. Apply petroleum jelly or an antibiotic ointment.

When to call your doctor

In addition, seek medical help if:

- The object is hard to see, such as clear glass, or doesn't come out easily, such as can happen with a fishhook.
- The injury involves an eye or is close to an eye.
- The wound is deep or dirty, and the injured person's last tetanus vaccination was more than five years ago. Your healthcare professional may recommend a booster.

Foreign object inhaled: First aid

Send to Kindle

If you or your child inhales a foreign object, see your health care provider. If an inhaled foreign object causes choking, you'll need to perform first aid.

If a choking person can cough forcefully, let the person keep coughing.

Coughing might naturally remove the stuck object.

If a person can't cough, talk, cry or laugh forcefully, give first aid to the person.

The American Red Cross recommends the following steps:

- Give five back blows. Stand to the side and just behind a choking adult. For a child, kneel down behind. Place your arm across the person's chest to support the person's body. Bend the person over at the waist to face the ground. Strike five separate times between the person's shoulder blades with the heel of your hand.
- Give five abdominal thrusts. If back blows don't remove the stuck object, give five abdominal thrusts, also known as the Heimlich maneuver.
- Alternate between five blows and five thrusts until the blockage is dislodged.

If you're the only rescuer, give back blows and abdominal thrusts first. Then, call 108 or your local emergency number for help. If another person is there, have that person call for help while you give first aid

If the person who has inhaled an object becomes unconscious:

- Lower the person onto the floor, with the back on the floor and arms to the sides.
- Clear the airway. If you can see the object, reach a finger into the mouth to sweep out the object. Never finger sweep if you can't see the object. You risk pushing the blockage deeper into the airway. This is very risky with young children.
- Begin CPR if the person still doesn't respond. If the airway is still blocked, use chest compressions such as those that are used in CPR to remove the stuck object. Only use two rescue breaths per cycle. Recheck the mouth regularly for the object.

Some sources only teach the abdominal thrust. It's OK not to use back blows if you haven't learned the back-blow technique. Both approaches are acceptable for adults and children older than age 1.

To give abdominal thrusts to someone else:

- Stand behind the person. For a child, kneel down behind. Place one foot slightly in front of the other for balance. Wrap your arms around the waist. Tip the person forward slightly.
- Make a fist with one hand. Put it just above the person's navel.
- Grasp the fist with the other hand. Press into the stomach, also called the abdomen, with a quick, upward thrust as if trying to lift the person up. For a child, use gentle yet firm pressure to avoid damaging the internal organs.
- Give five abdominal thrusts. Check if the blockage has been removed. Repeat as needed.

If the person is pregnant or if you can't get your arms around the stomach, give chest thrusts:

- Put your hands at the base of the breastbone, just above the joining of the lowest ribs.
- Press hard into the chest with a quick thrust. This is the same action as the Heimlich maneuver.
- Repeat until the blockage is removed from the airway.

If you're alone and choking:

Call 108 or your local emergency number right away. Then, give yourself abdominal thrusts, also called the Heimlich maneuver, to remove the item from the airway.

- Place a fist slightly above your navel.
- Grasp your fist with the other hand.
- Bend over a hard surface such as a countertop or chair.
- Shove your fist inward and upward.

Foreign object swallowed: First aid

Send to Kindle

#### Overview

If you swallow a foreign object, it usually will pass through your system without notice. But some objects can get stuck in the tube that connects the mouth and stomach, called the esophagus. Or they can block the airway and cause choking.

Give first aid as quickly as possible if you or someone else is choking. To prepare yourself for these situations, learn the Heimlich maneuver and CPR in a certified first-aid training course.

When to seek emergency help

If you're the only rescuer for someone who's choking, give back blows and abdominal thrusts first. Then call 108 or your local emergency number for help. If another person is there, have that person call for help while you give first aid.

If you're alone and choking, call 108 or your local emergency number right away. Then give yourself abdominal thrusts, also called the Heimlich maneuver, to remove the stuck object.

If the object is stuck in your esophagus, you may need to have it removed by your health care professional. Also see your healthcare professional right away for a swallowed object that is:

- Sharp or pointed. These objects can damage the esophagus.
- A button battery. Batteries can cause severe burns and permanent damage if not removed quickly.
- A magnet. Magnets can pull, press or wear holes through the intestines. It's especially risky if you swallow more than one.

## **Symptoms**

If an object is stuck in your esophagus, symptoms might include:

- Pain from the throat down the middle of the chest.
- Food or drink coming back up.

### Treatment

### Child and adult

If you have food stuck in the esophagus, you can try to drink a carbonated beverage to see if that will help it pass.

If an object blocks the airway and causes choking, give first aid.

If a choking person can cough forcefully, let the person keep coughing. Coughing might naturally remove the stuck object.

If a person can't cough, talk, cry or laugh forcefully, give first aid to the person. The American Red Cross recommends the following steps:

- Give five back blows. Stand to the side and just behind a choking adult. For a child, kneel down behind. Place your arm across the person's chest to support the person's body. Bend the person over at the waist to face the ground. Strike five separate times between the person's shoulder blades with the heel of your hand.
- Give five abdominal thrusts. If back blows don't remove the stuck object, give five abdominal thrusts, also known as the Heimlich maneuver.
- Alternate between five blows and five thrusts until the blockage is dislodged.

If you're the only rescuer for someone who's choking, give back blows and abdominal thrusts first. Then call 108 or your local emergency number for help. If another person is there, have that person call for help while you give first aid.

Some first-aid sources only teach the abdominal thrust. It's OK not to use back blows if you haven't learned the back-blow technique. Both approaches are acceptable for adults and children older than age 1.

To give abdominal thrusts to someone else:

- Stand behind the person. For a child, kneel down behind. Place one foot slightly in front of the other for balance. Wrap your arms around the waist. Tip the person forward slightly.
- Make a fist with one hand. Put it just above the person's navel.
- Grasp the fist with the other hand. Press into the stomach, also called the abdomen, with a quick, upward thrust as if trying to lift the person up. For a child, use gentle yet firm pressure to avoid damaging the internal organs.
- Give five abdominal thrusts. Check to see if the blockage has been removed. Repeat as needed.

If you're the only rescuer, give back blows and abdominal thrusts first. Then call 108 or your local emergency number for help. If another person is there, have that person call for help while you give first aid.

To clear the airway of an unconscious person:

- Lower the person onto the floor. Keep the person's back on the floor and arms to the sides.
- Clear the airway. If you can see the object, reach a finger into the mouth to sweep out the object. Never sweep with your finger if you can't see the object because this may push the blockage deeper into the airway. This is an especially high risk with young children.
- Begin CPR if the person still doesn't respond. If the airway is still blocked, use chest compressions such as those that are used in CPR to remove the stuck object. If the airway is clear and you give rescue breaths, only use two rescue breaths a cycle. Recheck the mouth regularly for the object.

Pregnant person or someone you can't get your arms around

If the person is pregnant or if you can't get your arms around the stomach, give chest thrusts:

- Put your hands on the chest. Place them at the base of the breastbone, just above the joining of the lowest ribs.
- Press hard into the chest with a quick thrust. This is the same action as the Heimlich maneuver.
- Repeat until the blockage is removed from the airway.

Yourself

If you're alone and choking:

Call 108 or your local emergency number right away. Then give yourself abdominal thrusts, also called the Heimlich maneuver, to remove the stuck object.

- Place a fist slightly above your navel.
- Grasp your fist with the other hand.
- Bend over a hard surface such as a countertop or chair.
- Shove your fist inward and upward.

Fractures (broken bones): First aid

Send to Kindle

### Overview

A fracture is a broken bone. It needs medical care. If the broken bone is the result of major trauma or injury, call 108 or your local emergency number.

When to seek emergency help

Also call for emergency help if:

- The person with the broken bone doesn't respond to you, isn't breathing or isn't moving. Call 108. Then begin CPR if there's no breathing or heartbeat.
- There's heavy bleeding.
- Even gentle pressure or movement causes pain.
- The limb or joint appears deformed.
- The bone has broken the skin and is sticking out.
- The toe of the injured leg or the finger of the injured arm is numb or discolored at the tip.
- You suspect a bone is broken in the neck, head or back.

### Treatment

To avoid making the injury worse, don't move the person unless you must. Take these actions right away while waiting for medical help:

- Stop any bleeding. Apply pressure to the wound with a sterile bandage, a clean cloth or a clean piece of clothing.
- Keep the injured area from moving. Don't try to realign the bone or push a bone that's sticking out back in. If you've been trained in how to splint and medical help isn't available right away, apply a splint to the area above and below the fracture sites. Padding the splints can help reduce pain.
- Apply ice packs to limit swelling and help relieve pain. Don't apply ice directly to the skin. Wrap the ice in a towel, a piece of cloth or some other material.
- Treat for shock. If the person feels faint or is breathing in short, rapid breaths, lay the person down with the head slightly lower than the trunk. If you can, raise the legs.

Frostbite: First aid

Send to Kindle

Be ready to help if someone has frostbite.

## By Mayo Clinic Staff

#### Overview

Frostbite is when skin and underlying tissues freeze after being exposed to very cold temperatures. It causes a cold feeling followed by numbness. As the frostbite gets worse, the affected skin may change color and become hard or waxy-looking.

The areas most likely to be affected are the fingers, toes, ears, cheeks, chin and tip of the nose.

When to seek emergency help

Seek emergency care for:

- Intense pain even after taking a pain reliever and rewarming.
- Intense shivering.
- Slurred speech.
- Drowsiness.
- Trouble walking.
- Suspected hypothermia. Symptoms of hypothermia are intense shivering, drowsiness, confusion, fumbling hands and slurred speech.

### Treatment

You can treat mild frostbite (frostnip) yourself. All other frostbite requires medical attention. First-aid steps for frostbite are as follows:

• Protect your skin from further damage. If there's any chance the affected areas will freeze again, don't thaw them. If they're already thawed, wrap them up so that they don't refreeze.

If you're outside, warm frostbitten hands by tucking them into your armpits. Protect your face, nose or ears by covering the area with dry, gloved hands.

- Get out of the cold, remove wet clothes and wrap up in a warm blanket.
- Gently rewarm frostbitten areas. If possible, soak the skin with frostbite in a tub or sink of warm water for about 30 minutes. For frostbite on the nose or ears, cover the area with warm, wet cloths for about 30 minutes.
- Drink a warm, nonalcoholic beverage.
- Take a nonprescription pain reliever if needed.
- Remove rings or other tight items. Do this before the injured area swells with rewarming.

### What to avoid

- Don't rub the affected skin with snow or anything else.
- Don't walk on frostbitten feet or toes if possible.
- Don't rewarm frostbitten skin with direct heat, such as a stove, heat lamp, fireplace or heating pad. This can cause burns.
- Don't drink alcohol.

• Don't apply direct heat. For example, don't warm the skin with a heating pad, a heat lamp, a blow-dryer or a car heater.

Gastroenteritis: First aid

Send to Kindle

Gastroenteritis is an inflammation of the stomach and intestines that can cause symptoms that are not pleasant, including watery diarrhea, nausea and vomiting. Gastroenteritis is often called the "stomach flu." Common causes are:

- Viruses.
- Food or water contaminated by bacteria or parasites.
- Side effect from medicines.

Common symptoms include:

- Nausea and vomiting.
- Diarrhea.
- Abdominal cramps.
- Low-grade fever (sometimes).

Depending on the cause of the inflammation, symptoms may last from one day to more than a week.

If you suspect you have gastroenteritis:

- Sip liquids. Sip a sports drink or water to prevent dehydration. Drinking fluids too quickly can make nausea and vomiting worse. Take small sips often over a couple of hours, instead of drinking a large amount at once.
- Take note of urination. You should be urinating at regular intervals, and your urine should be light and clear. Infrequent passage of dark urine is a sign of dehydration. Dizziness and lightheadedness also are symptoms of dehydration. If any of these symptoms occur and you can't drink enough fluids, seek medical attention.
- Ease back into eating. Try to eat small amounts of food frequently if you experience nausea. Otherwise, slowly begin to eat bland, easy-to-digest foods, such as soda crackers, toast, gelatin, bananas, applesauce, rice and chicken. Stop eating if your nausea returns. Avoid milk and dairy products, caffeine, alcohol, nicotine, and fatty or highly seasoned foods for a few days.
- Get plenty of rest. The illness and dehydration can make you weak and tired.

Seek medical attention if:

- Vomiting lasts more than two days.
- Diarrhea lasts more than several days.
- Diarrhea turns bloody.

- Fever is more than 102 Fahrenheit (39 degrees Celsius) or higher.
- You get lightheaded or faint when you stand.
- Confusion develops.
- Stomach pain develops.

If you suspect gastroenteritis in your child:

- Encourage your child to rest.
- When your child's vomiting stops, begin to offer small amounts of an oral rehydration solution (Ceralyte, Enfalyte, Pedialyte). Don't use only water or only apple juice. Drinking fluids too quickly can worsen the nausea and vomiting, so try to give small frequent sips over a couple of hours, instead of drinking a large amount at once. Try using a water dropper of rehydration solution instead of a bottle or cup.
- Gradually introduce bland, easy-to-digest foods, such as toast, rice, bananas and potatoes. Avoid giving your child full-fat dairy products, such as whole milk and ice cream, and sugary foods, such as sodas and candy. These can make diarrhea worse.
- If you're breastfeeding, let your baby nurse. If your baby is bottle-fed, offer a small amount of an oral rehydration solution or regular formula.

Seek medical attention if your child:

- Becomes unusually drowsy.
- Vomits frequently or vomits blood.
- Has bloody diarrhea.
- Shows signs of dehydration, such as dry mouth and skin, marked thirst, sunken eyes, or crying without tears. In an infant, be alert to the soft spot on the top of the head becoming sunken and to diapers that remain dry for more than three hours.
- Is an infant and has a fever.
- Is older than 3 months of age and has a fever of 102 Fahrenheit (39 degrees Celsius) or more.

Head trauma: First aid

## Send to Kindle

To give first aid to a person who has head trauma, call 108 or your local emergency number. Any of the following symptoms may indicate a serious head injury:

### Adults

- Severe head or facial bleeding.
- Bleeding or fluid leakage from the nose or ears.
- Vomiting.
- Severe headache.

- Change in consciousness for more than a few seconds.
- Black-and-blue discoloration below the eyes or behind the ears.
- Not breathing.
- Confusion.
- Agitation.
- Loss of balance.
- Weakness or an inability to use an arm or leg.
- Unequal pupil size.
- Slurred speech.
- Seizures.

#### Children

- Any of the symptoms for adults.
- Persistent crying.
- Refusal to eat.
- Bulging in the soft spot on the front of the head of infants.
- Repeated vomiting.

Administer the following first-aid steps while waiting for emergency medical help to arrive:

- Keep the person still. The injured person should lie down with the head and shoulders slightly elevated. Don't move the person unless necessary. Avoid moving the person's neck. If the person is wearing a helmet, don't remove it.
- Stop any bleeding. Apply firm pressure to the wound with sterile gauze or a clean cloth. But don't apply direct pressure to the wound if you suspect a skull fracture.
- Watch for changes in breathing and alertness. If the person shows no signs of circulation no breathing, coughing or movement begin CPR.

Head trauma that results in concussion symptoms need to be evaluated by a medical professional. Concussion symptoms include nausea, unsteadiness, headaches or difficulty concentrating.

Headache: First aid

Send to Kindle

While most headaches are minor, some warn of a serious problem. Here's when to worry about a headache.

By Mayo Clinic Staff

Most headaches are minor, and you can treat them with a pain reliever. Some headaches, however, signal a dangerous or serious medical problem. Don't ignore headaches that aren't explained or headaches that steadily worsen.

Get immediate medical attention if your headache:

- Develops suddenly and severely.
- Persists for several days.
- Causes mental confusion or loss of consciousness.
- Happens with seizures.

Immediate medical attention also is needed if your headache occurs with new:

- Dizziness or loss of balance.
- Weakness or paralysis, such as in the arms or legs.
- Numbness.
- Difficulty speaking or understanding speech.
- Reddened eye.

Also seek medical attention if your headache:

- Occurs with a fever, stiff neck or rash.
- Is accompanied by changes in vision, such as blurring or seeing halos around lights.
- Is serious and follows a recent sore throat or respiratory infection.
- Begins or worsens after a head injury, fall or bump.
- Is triggered by changing the position of your head, coughing, sneezing, bending or physical activity.
- Is a different type of headache from your usual type and you're older than 50.

What to do when someone is having a heart attack

Send to Kindle

### Overview

A heart attack is heart damage caused by reduced or blocked blood flow to the heart muscle. Another name for the condition is myocardial infarction. A heart attack is a medical emergency. First aid for a heart attack includes cardiopulmonary resuscitation (CPR).. It can help save a person's life.

When to seek emergency help

Call 108 or emergency medical help if you think you or someone else might be having a heart attack.

## **Symptoms**

Symptoms of a heart attack may include:

- Chest pain that may feel like pressure, tightness, pain, squeezing or aching.
- Pain or discomfort that spreads to the shoulder, arm, back, neck, jaw, teeth or sometimes the upper belly.
- Cold sweats.

- Fatigue.
- Heartburn or indigestion.
- Lightheadedness or sudden dizziness.
- Nausea.
- Shortness of breath.

A heart attack usually causes chest pain that lasts more than 15 minutes. The chest pain may be mild or severe. Some people don't have any chest pain or pressure. Symptoms may be less obvious in some people, especially for women. For example, heart attack symptoms may include nausea or a brief or sharp pain felt in the neck, arm or back.

Some heart attacks happen suddenly. But many people have warning signs hours or days in advance.

### Treatment

- Call 108 or your local emergency number. Don't ignore the symptoms of a heart attack. If you can't get an ambulance or emergency vehicle to come to you, have someone drive you to the nearest hospital. Drive yourself only if you have no other option.
- Take aspirin, if recommended. Aspirin helps prevent blood clotting. Taking aspirin during a heart attack may reduce heart damage. Don't take an aspirin unless a healthcare professional says to do so. Don't delay calling 108 to take an aspirin. Call for emergency help first.
- Take nitroglycerin, if prescribed. If you think you're having a heart attack and you have a prescription for this medicine, take it as directed while waiting for emergency medical help.
- Start CPR if the person doesn't have a pulse or isn't breathing. If you're untrained in CPR, do hands-only CPR. That means push hard and fast on the person's chest. Do this about 100 to 120 times a minute. If you're trained in CPR and confident in your ability, start with 30 chest compressions before giving two rescue breaths.
- Use an automated external defibrillator (AED) if one is available and the person is unconscious. The device delivers shocks to reset the heart rhythm. AEDs come with step-by-step voice instructions for their use. They're programmed to allow a shock only when appropriate.

## Prevention

Lifestyle changes can keep the heart healthy and may help prevent a heart attack.

- Don't smoke or use tobacco.
- Get regular exercise.
- Keep a healthy weight.
- Eat nutritious foods and use less salt and saturated fats.
- Limit alcohol.
- Manage stress.
- Control blood pressure, blood sugar and cholesterol.
- Get 7 to 8 hours of sleep daily.

Also it's a good idea to learn CPR and how to use an AED so you can help someone who's having a heart attack. Ask your healthcare team if any accredited first-aid training courses are available in your area.

Heat cramps: First aid

Send to Kindle

#### Overview

Heat cramps are painful muscle spasms that can happen during activity in hot environments. People who sweat a lot may be prone to heat cramps. That's because the fluid and electrolyte loss that occurs through sweating often contributes to heat cramps.

## **Symptoms**

Heat cramps most often affect the muscles of the calves, arms, abdomen and back. But heat cramps may happen to any muscle group involved in exercise.

#### Treatment

If you suspect heat cramps:

- Rest briefly and cool down.
- Drink clear juice, such as apple juice, or a sports drink that has electrolytes.
- Do gentle, range-of-motion stretching and gentle massage of the affected muscle group.
- Don't do any strenuous activity for a few hours after heat cramps go away.

### When to call your doctor

Call your healthcare professional if your heat cramps don't go away within one hour. You should also seek medical attention if you have heart problems or are on a low-sodium diet.

Heat exhaustion: First aid

Send to Kindle

### Overview

Heat exhaustion is one of the heat-related syndromes. These syndromes vary in seriousness, ranging from mild to possibly life-threatening. Other types of heat-related illnesses include heat rash, heat cramps, heat syncope and heatstroke.

Heat exhaustion can happen when the body loses too much water or salt — usually because of heavy sweating or dehydration. It can begin suddenly or happen over time, usually after working, exercising or playing in the heat.

When to seek emergency help

Call 108 or your local emergency number if the affected person:

- Faints.
- Becomes agitated.
- Is confused.

- Has a seizure.
- Is not able to drink.
- Has a core body temperature measured with a rectal thermometer of 104 degrees Fahrenheit (40 degrees Celsius), which indicates heatstroke.

## **Symptoms**

Heat exhaustion symptoms include:

- Cool, moist skin with goose bumps when in the heat.
- Heavy sweating.
- Faintness.
- Dizziness.
- Fatigue.
- Weak, rapid pulse.
- Low blood pressure after standing up.
- Muscle cramps.
- Nausea or vomiting.
- Headache.
- Extreme thirst.
- Mild confusion.
- Decreased urine output.

### Treatment

Untreated, heat exhaustion can lead to heatstroke, which is a life-threatening condition. If you suspect heat exhaustion, take these steps immediately:

- Move the person out of the heat and into a shady or air-conditioned place.
- Lay the person down and raise the legs and feet slightly.
- Remove tight or heavy clothing.
- Have the person sip chilled water, a sports drink containing electrolytes or another nonalcoholic beverage without caffeine.
- Cool the person by spraying or sponging with cool water and fanning.
- Monitor the person carefully.

Contact a healthcare professional if symptoms get worse or if the person doesn't improve after taking first-aid measures.

Heatstroke: First aid

Send to Kindle

#### Overview

Heatstroke happens when body temperature rises quickly and a person can't cool down. It can be life-threatening by causing damage to the brain and other vital organs. It may be caused by doing strenuous activity in the heat or by being in a hot place for too long. Heatstroke can happen without having any previous heat-related condition, such as heat exhaustion.

## When to seek emergency help

If you suspect heatstroke, call 108 or your local emergency number. Then move the person out of the heat right away.

## Symptoms

Heatstroke symptoms include:

- Fever of 104 degrees Fahrenheit (40 degrees Celsius) or greater.
- Changes in mental status or behavior, such as confusion, agitation and slurred speech.
- Hot, dry skin or heavy sweating.
- Nausea and vomiting.
- Flushed skin.
- Rapid pulse.
- Rapid breathing.
- Headache.
- Fainting.
- Seizure.
- Coma.

#### Treatment

For heatstroke, cool the person through whatever means available. For example:

- 1. Put the person in a cool tub of water or a cool shower.
- 2. Spray the person with a garden hose.
- 3. Sponge the person with cool water.
- 4. Fan the person while misting with cool water.
- 5. Place ice packs or cool, wet towels on the neck, armpits and groin.
- 6. Cover the person with cool, damp sheets.
- 7. If the person is conscious, offer chilled water, a sports drink containing electrolytes or another nonalcoholic beverage without caffeine.
- 8. Begin CPR if the person loses consciousness and shows no signs of circulation, such as breathing, coughing or movement.

Human bites: First aid

Send to Kindle

#### Overview

Human bites can be as dangerous as or even more dangerous than animal bites because of the types of bacteria and viruses in the human mouth. A human bite could be accidental or on purpose, with most bites due to another person. A human bite could arise when you cut your knuckles on another person's teeth, as might happen in a fight. Or it could be due to a cut on your knuckles from your teeth, such as from a fall. Human bites that break the skin can become infected.

#### Treatment

To take care of a human bite that breaks the skin:

- Stop the bleeding by applying pressure with a clean, dry cloth.
- Wash the wound thoroughly with soap and water.
- Apply a clean bandage. Cover the affected area with a nonstick bandage.
- Seek emergency medical care.

If you haven't had a tetanus shot within five years, your healthcare professional may recommend a booster. In this case, get the booster shot within 48 hours of the injury.

Hypothermia: First aid

Send to Kindle

#### Overview

Hypothermia happens when the body loses heat faster than it can produce heat and the body temperature falls below 95 degrees Fahrenheit (35 degrees Celsius). Left untreated, it can be lifethreatening.

Hypothermia is often caused by exposure to cold weather or immersion in cold water. Ongoing exposure to cool indoor temperatures also can cause hypothermia, especially in older adults and babies. Being exhausted or dehydrated increases the risk of hypothermia.

When to seek emergency help

If you suspect someone has hypothermia, call 108 or your local emergency number.

## Symptoms

Symptoms of hypothermia usually develop slowly and may include:

- Shivering, though this may stop as body temperature drops.
- Slurred speech or mumbling.
- Slow, shallow breathing.
- Weak pulse.
- Clumsiness or lack of coordination.
- Drowsiness or very low energy.

- Confusion or memory loss.
- Loss of consciousness.
- In infants, bright red, cold skin.

#### Treatment

To help someone with hypothermia, take these steps immediately:

- 1. Gently move the person out of the cold. If going indoors isn't possible, protect the person from the wind, especially around the neck and head. Insulate the individual from the cold ground, such as by laying a blanket underneath the person.
- 2. Gently remove wet clothing. Replace wet things with warm, dry coats or blankets.
- 3. If further warming is needed, do so gradually and focus on the center of the body. For example, apply warm, dry compresses to the neck, chest and groin. The CDC says that another option is using an electric blanket, if available. If a hot water bottle or chemical hot pack is used, first wrap it in a towel before applying.
- 4. Offer the person warm, sweet, nonalcoholic drinks.
- 5. Begin CPR if the person shows no signs of life, such as breathing, coughing or movement.

#### What to avoid

- Do not rewarm the person too quickly, such as with a heating lamp or hot bath.
- Don't attempt to warm the arms and legs. Heating or massaging the limbs can stress the heart and lungs.
- Don't give the person alcohol or cigarettes. Alcohol hinders the rewarming process, and tobacco products interfere with circulation that is needed for rewarming.

Insect bites and stings: First aid

Send to Kindle

### Overview

Most insect bites and stings are mild and can be treated at home. They might cause itching, swelling and stinging that go away in a day or two. Some bites or stings can transmit disease-causing bacteria, viruses or parasites. Stings from bees, yellow jackets, wasps, hornets and fire ants might cause a severe allergic reaction (anaphylaxis).

When to seek emergency help

Call 108 or your local medical emergency number if a child is stung by a scorpion or if anyone is having a serious reaction that suggests anaphylaxis, even if it's just one or two of the following symptoms:

- Trouble breathing.
- Swelling of the lips, face, eyelids or throat.
- Dizziness, fainting or unconsciousness.
- A weak and rapid pulse.

- Hives.
- Nausea, vomiting or diarrhea.

Take these actions immediately while waiting for medical help:

- Ask whether the injured person is carrying an epinephrine autoinjector (Auvi-Q, others). Ask whether you should help inject the medicine. This is usually done by pressing the autoinjector against the thigh and holding it in place for several seconds.
- Loosen tight clothing and cover the person with a blanket.
- Don't offer anything to drink.
- If needed, position the person to prevent choking on vomit

#### Treatment

To treat a mild reaction to an insect bite or sting:

- Move to a safe area to avoid more bites or stings.
- Remove any stingers.
- Gently wash the area with soap and water.
- Apply to the affected skin a cloth dampened with cold water or filled with ice. Keep it on for 10 to 20 minutes. This helps reduce pain and swelling.
- If the injury is on an arm or leg, raise it.
- Apply to the affected skin calamine lotion, baking soda paste, or 0.5% or 1% hydrocortisone cream. Do this several times a day until your symptoms go away.
- Take an anti-itch medicine by mouth to reduce itching. Options include nonprescription cetirizine, fexofenadine (Allegra Allergy, Children's Allegra Allergy), loratadine (Claritin). These types of medicines are also called antihistamines.
- Take a nonprescription pain reliever as needed.

When to call your doctor

See a healthcare professional if the swelling gets worse, the site shows signs of infection or you don't feel well.

Motion sickness: First aid

Send to Kindle

Any type of transportation can cause motion sickness. It can strike suddenly, progressing from a feeling of uneasiness to a cold sweat, dizziness and vomiting. It usually quiets down as soon as the motion stops. The more you travel, the more easily you'll adjust to being in motion.

You might avoid motion sickness by planning ahead. When traveling, avoid sitting in the rear of the vehicle or in seats that face backward. Pick seats where you'll feel motion least:

• By ship, request a cabin in the front or middle of the ship near the water level.

- By plane, ask for a seat over the front edge of a wing. Once aboard, direct the air vent flow to your face.
- By train, take a forward-facing seat near the front and next to a window.
- By automobile, drive or sit in the front passenger's seat. Children should be in ageappropriate seats and restraints.

If you're susceptible to motion sickness:

- Focus on the horizon or on a distant, stationary object. Don't read or use electronic devices while traveling.
- Keep your head still, while resting against a seat back.
- Don't smoke and don't sit near smokers.
- Avoid strong odors, spicy and greasy foods, and alcohol.
- Take an antihistamine, which you can buy without a prescription. Medicines include dimenhydrinate (Dramamine, Driminate, others) and meclizine (Dramamine Less Drowsy, Travel-Ease, others). Dimenhydrinate is safe for children older than age 2. Take these medicines at least 30 to 60 minutes before you travel. Expect drowsiness as a side effect.
- Consider scopolamine, available in a prescription adhesive patch called Transderm Scop. Several hours before you plan to travel, apply the patch behind your ear for 72-hour protection. Talk to your health care provider before using the medicine if you have health problems such as glaucoma or urine retention.
- Try ginger. A ginger supplement combined with ginger snaps, ginger ale or candied ginger might help curb nausea.
- Eat lightly. Some people find that nibbling on plain crackers and sipping cold water or a carbonated drink without caffeine help.

Nosebleeds: First aid

Send to Kindle

Overview

Nosebleeds, also called epistaxis (ep-ih-STAK-sis), are common. They happen when the tender blood vessels in the nose break. Common nosebleed causes can include changes of season, dryness, scratching, some medicines and injuries. People on blood thinners may have worse nosebleeds than do others. Most often nosebleeds are only annoying and not a true medical problem. But they can be both.

When to seek emergency help

Seek emergency help if:

- Nosebleeds involve a greater than expected amount of blood.
- Nosebleeds last longer than 30 minutes.
- You feel faint or lightheaded.

• The nosebleed follows a fall or an accident. Bleeding after a fall or an injury to the head or face could mean that you have broken the nose.

### Treatment

Follow these steps to treat a common nosebleed.

- Sit up and lean forward. Keep the head up. Lean forward so the blood doesn't go down the throat. This could cause you to choke or have an upset stomach.
- Gently blow your nose. This will clear any blood clots.
- Pinch the nose. Use the thumb and a finger to pinch both nostrils shut. Breathe through the mouth. Keep pinching for 10 to 15 minutes. Pinching puts pressure on the blood vessels and helps stop the blood flow.

If the bleeding doesn't stop, pinch the nose again for up to 15 minutes. Don't let go for at least five minutes even to check if the bleeding has stopped. Seek emergency care if the bleeding doesn't stop after the second try.

- Prevent another nosebleed. Don't pick or blow the nose. And don't drop the head below the heart or lift anything heavy for many hours. Gently put a saline gel (Ayr), antibiotic ointment (Neosporin) or petroleum jelly (Vaseline) on the inside of the nose. Put most of the salve on the middle part of the nose, also called the septum. Steam, humidifiers or an ice pack across the bridge of the nose also may help.
- If you have another nosebleed, try first-aid steps again. This time, spray both sides of the nose with a nasal spray that has oxymetazoline in it (Afrin). Do this after blowing the nose. Then pinch the nose again. Seek medical help if the bleeding does not stop.

When to contact your doctor

Call a member of your care team if:

- You have nosebleeds often. You may need to have a blood vessel cauterized. Cautery is a method that burns and seals blood vessels using electric current, silver nitrate or a laser. Also, a care provider might pack the nose with special gauze or an inflatable latex balloon. Both packing methods put pressure on the blood vessel and stop the bleeding.
- You have nosebleeds and you're taking blood thinners. If you're taking medicines such as aspirin or warfarin (Jantoven), your care team may change the medicine dose.

Prevention

Think about using a humidifier. Adding more moisture in your home may help relieve nasal bleeding.

Poisoning: First aid

Send to Kindle

### Overview

Poisoning is injury or death due to swallowing, inhaling, touching or injecting various drugs, chemicals, venoms or gases. Many substances — such as drugs and carbon monoxide — are poisonous only in higher concentrations or dosages. And others — such as cleaners — are dangerous only if ingested. Children are particularly sensitive to even small amounts of certain drugs and chemicals.

How you treat someone who may have been poisoned depends on:

- The person's symptoms.
- The person's age.
- Whether you know the type and amount of the substance that caused poisoning.

If you are concerned about possible poisoning, call Poison Help at 800-222-1222 in the United States or your regional poison control center. It may help to place a refrigerator magnet or a visible sticker in your home with the poison control number. Poison control centers are excellent resources for poisoning information and, in many situations, may advise that in-home observation is all that's needed.

When to seek emergency help

Call 108 or your local emergency number immediately if the person is:

- Drowsy or unconscious.
- Having difficulty breathing or has stopped breathing.
- Uncontrollably restless or agitated.
- Having seizures.
- Known to have taken medicines, or any other substance, intentionally or accidentally overdosed (in these situations the poisoning typically involves larger amounts, often along with alcohol).

Call Poison Help at 800-222-1222 in the United States or your regional poison control center in the following situations:

- The person is stable and has no symptoms.
- The person is going to be transported to the local emergency department.

Be ready to describe the person's symptoms, age, weight, other medicines the person is taking, and any information you have about the poison. Try to find out the amount ingested and how long since the person was exposed to it. If possible, have on hand the pill bottle, medicine package or other suspected container so that you can refer to its label when speaking with the poison control center.

### **Symptoms**

Poisoning symptoms can mimic other conditions, such as seizure, alcohol intoxication, stroke and insulin reaction. Symptoms of poisoning may include:

- Burns or redness around the mouth and lips.
- Breath that smells like chemicals, such as gasoline or paint thinner.
- Vomiting.
- Difficulty breathing.
- Drowsiness.
- Confusion or other altered mental status.

If you suspect poisoning, be alert for clues such as empty pill bottles or packages, scattered pills, and burns, stains and odors on the person or nearby objects. With a child, consider the possibility that the child may have applied medicated patches, taken prescription medicines or swallowed a button battery.

#### Treatment

Take the following actions until help arrives:

- Swallowed poison. Remove anything remaining in the person's mouth. If the suspected poison is a household cleaner or other chemical, read the container's label and follow instructions for accidental poisoning.
- Poison on the skin. Remove any contaminated clothing using gloves. Rinse the skin for 15 to 20 minutes in a shower or with a hose.
- Poison in the eye. Gently flush the eye with cool or lukewarm water for 20 minutes or until help arrives.
- Button batteries. The small, flat batteries used in watches and other electronics particularly the larger, nickel-sized ones are especially dangerous to small children. A battery stuck in the esophagus can cause severe tissue burns.

If you suspect that a child has swallowed one of these batteries, immediately take the child for an emergency X-ray to find its location. If the battery is in the esophagus, it will have to be removed. If it has passed into the stomach, it's usually safe to allow it to pass on through the intestinal tract.

- Medicated patches. If you think a child got hold of medicated patches adhesive products for transdermal drug delivery carefully inspect the child's skin and remove any that are attached. Also check the roof of the mouth, where medicated patches can get stuck if the child sucks on them.
- Inhaled poison. Get the person into fresh air as soon as possible.
- If the person vomits, turn the person's head to the side to prevent choking.
- Begin CPR if the person shows no signs of life, such as moving, breathing or coughing.
- Call Poison Help at 800-222-1222 in the United States or your regional poison control center for additional instructions.
- Have somebody gather pill bottles, packages or containers with labels, and any other information about the poison to send along with the ambulance team.

In the case of an opioid overdose

If the person is at risk of overdose of opioid pain medication and naloxone (Narcan) is available, please administer. Increasingly, healthcare providers are giving people Narcan injectable prescriptions if they are at risk of overdose. Loved ones should be familiar with how to use them.

## What to avoid

• Syrup of ipecac. Don't give syrup of ipecac or do anything to induce vomiting. Expert groups, including the American Association of Poison Control Centers and the American Academy of Pediatrics, no longer endorse using ipecac in children or adults who have taken pills or other potentially poisonous substances. No good evidence proves its effectiveness, and it often can do more harm than good.

If you still have old bottles of syrup of ipecac in your home, throw them away.

Puncture wounds: First aid

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A puncture wound, such as from stepping on a nail, doesn't usually cause much bleeding. But these wounds are often deep and can be dangerous because of the risk of infection.

#### Treatment

To take care of a puncture wound:

- 1. Wash your hands. This helps prevent infection.
- 2. Stop the bleeding. Apply gentle pressure with a clean bandage or cloth.
- 3. Clean the wound. Rinse the wound with clear water for 5 to 10 minutes. If dirt or debris remains in the wound, use a washcloth to gently scrub it off. See your health care team if you can't remove all of the dirt or debris.
- 4. Apply an ointment. Apply a thin layer of an antibiotic cream or ointment (Neosporin, Polysporin). For the first two days, rewash the area and reapply the antibiotic when you change the dressing. Certain ingredients in some ointments can cause a mild rash in some people. If a rash appears, stop using the product and seek medical care. For those people who could have an allergic reaction to antibiotic cream or ointment, petroleum jelly (Vaseline) may be used.
- 5. Cover the wound. Bandages help keep the wound clean.
- 6. Change the dressing. Do this daily or whenever the bandage becomes wet or dirty.
- 7. Watch for signs of infection. See a doctor if the wound isn't healing or you notice any increasing pain, pus, swelling or fever. Spreading redness is a sign of infection. You may not be able to see redness on brown or Black skin, or the infection's streaks may look purplish-gray or darker than your usual skin color.

When to seek emergency help

Get medical help at once if your wound:

- Keeps bleeding after a few minutes of direct pressure.
- Is due to an animal or human bite.
- Is deep and dirty.
- Is caused by a metal object.
- Is deep and to the head, neck, scrotum, chest or abdomen.
- Is over a joint and could be deep.
- Is due to an assault or attempted suicide.

When to call your doctor

Seek medical care if your wound shows signs of infection, such as:

Fever.

- Redness, swelling, warmth or increasing pain around the wound.
- Bad smell coming from the wound.
- Pus coming out of the wound.
- Red streaks around the wound or going up your arm or leg.

If you haven't had a tetanus shot in the past five years and the wound is deep or dirty, your health care professional may recommend a booster. You should have a booster shot within 48 hours of your injury.

If the wound was caused by a cat or a dog, try to confirm that its rabies vaccination is up to date. If it was caused by a wild animal, seek advice from your doctor about which animals are most likely to carry rabies.

Severe bleeding: First aid

Send to Kindle

Overview

Severe bleeding can be caused by gashes, cuts, tears and other injuries. A person with uncontrolled bleeding can die within five minutes, so it's important to quickly stop blood loss.

When to seek emergency help

Call 108 or your local emergency number if the wound is deep or you're not sure how serious it is. Don't move the injured person except if needed to avoid further injury.

Treatment

For severe bleeding, take these first-aid steps.

- Before checking for the source of the wound, put on disposable gloves and other personal protective equipment if you have them.
- Remove any clothing or debris from the wound. Look for the source of the bleeding. There could be more than one injury. Remove any obvious debris but don't try to clean the wound.
- Stop the bleeding. Cover the wound with sterile gauze or a clean cloth. Press on it firmly with the palm of your hand until bleeding stops.

Wrap the wound with a thick bandage or clean cloth and tape. Lift the wound above heart level if possible.

- Help the injured person lie down. If possible, place the person on a rug or blanket to prevent loss of body heat. Elevate the feet if you notice signs of shock, such as weakness, clammy skin or a rapid pulse. Calmly reassure the injured person.
- Add more bandages as needed. If the blood seeps through the bandage, add more gauze or cloth on top of the existing bandage. Then keep pressing firmly on the area.
- Tourniquets: A tourniquet is effective in controlling life-threatening bleeding from a limb. If needed, apply a commercially made tourniquet if it's available and you're trained in how to use it.

When emergency help arrives, tell them how long the tourniquet has been in place.

• Keep the person still. If you're waiting for emergency help to arrive, try to keep the injured person from moving.

If you haven't called for emergency help, get the injured person to an emergency room as soon as possible.

• Wash your hands. After helping the injured person, wash your hands, even if it doesn't look like any blood got on your hands.

### What to avoid

- Don't remove large or deeply embedded objects.
- Don't probe the wound.
- Don't press on an eye injury or embedded object.
- Don't press on a head wound if you suspect a skull fracture.
- Don't use an improvised tourniquet, such as a scarf or a belt.

Shock: First aid

Send to Kindle

### Overview

Shock is a critical condition brought on by the sudden drop in blood flow through the body. Shock may result from trauma, heatstroke, blood loss or an allergic reaction. It also may result from severe infection, poisoning, severe burns or other causes.

Shock keeps organs from getting enough blood or oxygen. If shock is not treated, it can lead to permanent organ damage or even death.

When to seek emergency care

If you suspect a person is in shock, call 108 or your local emergency number.

## Symptoms

Symptoms of shock vary depending on circumstances and may include:

- Cool, clammy skin.
- Pale or ashen skin.
- A gray or bluish tinge to lips or fingernails.
- 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.

### Treatment

After calling 108 or your local emergency number, take the following steps right away:

- 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.
- Begin CPR if the person shows no signs of life, such as not breathing, coughing or moving.
- Loosen tight clothing and, if needed, cover the person with a blanket to prevent chilling.
- If the person vomits or is bleeding from the mouth, and no spinal injury is suspected, turn the person onto a side to prevent choking.

#### What to avoid

Don't let the person eat or drink anything.

Snakebites: First aid

#### Send to Kindle

Most snakes aren't dangerous to people. Only about 15% of snakes worldwide and 20% in the United States can inject poison when they bite. These snakes are called venomous. In North America, these include the rattlesnake, coral snake, water moccasin, also called cottonmouth, and copperhead. Their bites can cause serious injuries and sometimes death.

If a venomous snake bites you, call 108 or your local emergency number right away, especially if the bitten area changes color, swells or is painful. Many emergency rooms have antivenom drugs, which may help you.

If possible, take these steps while waiting for medical help:

- Move far away from the snake.
- Stay still and calm.
- Remove any jewelry, watches or tight clothing before swelling starts.
- Sit or lie down so that the bite is in a neutral, comfortable position.
- Clean the bite with soap and water. Cover or wrap it loosely with a clean, dry bandage.

### Caution

- Don't use a tourniquet or apply ice.
- Don't cut the bite or try to remove the venom.
- Don't drink caffeine or alcohol.
- Don't take pain-relieving medicine, such as aspirin, ibuprofen (Advil, Motrin IB, others) or naproxen sodium (Aleve). Doing so can increase your risk of bleeding.

• Don't try to catch or trap the snake. Try to remember its color and shape so that you can describe it. If possible, take a picture of the snake from a safe distance. Knowing what kind of snake bit you can help with treatment.

**Symptoms** 

Most snakebites happen on the arms, wrists or hands. Typical symptoms of a nonvenomous snakebite are pain, injury and scratches at the site of the bite.

After a venomous snakebite, there usually is serious pain and tenderness at the site. This can worsen to swelling and bruising at the site that may move all the way up the arm or leg. Other symptoms are nausea, labored breathing and feelings of weakness, as well as an odd taste in the mouth.

Some snakes, such as coral snakes, have toxins that affect the brain and nerves. This can cause symptoms such as upper eyelid drooping, tingling fingers or toes, difficulty swallowing, and muscle weakness.

Sometimes, a venomous snake can bite without injecting venom. This is called a dry bite.

Venomous snakes in North America

Most venomous snakes in North America have eyes like slits and are called pit vipers. Their heads are triangle-shaped and they have fangs. One exception is the coral snake, which has a cigar-shaped head and round pupils. Nonvenomous snakes typically have rounded heads, round pupils and no fangs.

Spider bites: First aid

Send to Kindle

Overview

Most spider bites cause only minor injury. Bites from a few spider species can be dangerous.

When to seek emergency help

Seek medical care right away if:

- You were bitten by a dangerous spider, such as a black widow or a brown recluse.
- You're unsure if the bite was from a dangerous spider.
- You have severe pain, stomach cramping or a growing wound at the bite site.
- You're having problems breathing or swallowing.
- The area of inflamed skin is spreading or has streaks.

## Treatment

To take care of a spider bite:

- Clean the wound with mild soap and water. Then apply an antibiotic ointment three times a day to help prevent infection.
- Apply a cool cloth over the bite for 15 minutes each hour. Use a clean cloth dampened with water or filled with ice. This helps reduce pain and swelling.
- If possible, raise the affected area.

- Take a nonprescription pain reliever as needed.
- If the wound is itchy, an antihistamine might help. Examples are diphenhydramine or cetirizine. Or try calamine lotion or a steroid cream.

For pain and muscle spasms, your healthcare professional might prescribe pain medicine, muscle relaxants or both. You might also need a tetanus shot.

## Black widow spiders

You can usually identify a black widow spider by the red hourglass marking on its belly. In the United States, this spider is more common in the South. It's also found in Europe.

Symptoms of a black widow spider bite can include:

- Inflamed skin, pain and swelling.
- Severe stomach pain or cramping.
- Nausea, vomiting, shaking or sweating.

## Brown recluse spider

The brown recluse spider has a violin-shaped marking on its back, but this mark can be hard to see. This spider is commonly found in the southern half of the United States and in South America, where it is known as the brown spider.

Symptoms of a brown recluse spider bite can include:

- At first, a mild pain.
- Fever, chills and body aches.
- A sore with a blue or purple center and a ring around it.

Spinal injury: First aid

## Send to Kindle

If you suspect a back or neck (spinal) injury, do not move the affected person. Permanent paralysis and other serious complications can result. Assume a person has a spinal injury if:

- There's evidence of a head injury with an ongoing change in the person's level of consciousness
- The person complains of severe pain in his or her neck or back
- An injury has exerted substantial force on the back or head
- The person complains of weakness, numbness, or paralysis or lacks control of his or her limbs, bladder or bowels
- The neck or body is twisted or positioned oddly

If you suspect someone has a spinal injury:

- Get help. Call 108 or emergency medical help.
- Keep the person still. Place heavy towels or rolled sheets on both sides of the neck or hold the head and neck to prevent movement.

- Avoid moving the head or neck. Provide as much first aid as possible without moving the person's head or neck. If the person shows no signs of circulation (breathing, coughing or movement), begin CPR, but do not tilt the head back to open the airway. Use your fingers to gently grasp the jaw and lift it forward. If the person has no pulse, begin chest compressions.
- Keep helmet on. If the person is wearing a helmet, don't remove it. A football helmet facemask should be removed if you need to access the airway.
- Don't roll alone. If you must roll the person because he or she is vomiting, choking on blood or because you have to make sure the person is still breathing, you need at least one other person. With one of you at the head and another along the side of the injured person, work together to keep the person's head, neck and back aligned while rolling the person onto one side.

Sprain: First aid

Send to Kindle

## Overview

A sprain is an injury to a ligament caused by stretching the ligament too far or tearing it. A ligament can tear partway or all the way. Ligaments are tough, elastic-like bands that connect bone to bone. They help hold joints in place.

When to seek emergency help

Seek medical care right away if:

- You can't put weight on the injured leg, the joint feels unstable or numb, or you can't use the joint. This may mean the ligament was completely torn. On the way to see your healthcare professional, apply a cold pack.
- You have a change of color or streaks of color that spread out from the injured area. This may mean you have an infection.
- You have pain directly over the bones of an injured joint.
- You have re-injured an area that has been injured a few times in the past.
- You have a severe sprain. Delayed treatment might lead to ongoing pain and the joint not being stable.

# **Symptoms**

Areas of the body most likely to sprain are ankles, knees and wrists. Sprained ligaments often swell quickly, are painful and might cause bruising. Often, the greater the pain and swelling, the worse the injury is. For most minor sprains, you can start treatment yourself.

## Treatment

To treat a sprain, try the R.I.C.E. approach — rest, ice, compression, elevation:

1. Rest the injured area. Your healthcare professional may say not to put weight on the injured area for 48 to 72 hours. You may need to use crutches or not use the sprained area. A splint or brace also may be helpful at first.

Even with an injury such as an ankle sprain, you can often exercise other muscles to keep from losing strength. For instance, you can use an exercise bicycle that has movable arm handles. This works your arms and the leg that isn't injured.

You can rest the injured ankle on the footrest. That way, you still can get a good workout while letting the ankle injury heal.

2. Ice the area. Use a cold pack, a bath of ice and water, or a compression sleeve filled with cold water to keep swelling down after an injury. Ice the area as soon as you can after the injury.

Ice the area for 15 to 20 minutes, 4 to 8 times a day, for the first 48 hours or until swelling goes down. Don't use ice for more than 20 minutes at a time. Use a dishcloth or thin towel between the ice and your skin. Putting ice right on the skin or icing for too long can damage tissue.

- 3. Compress the area with an elastic wrap or bandage. Keeping pressure on the area might keep swelling down.
- 4. Elevate the injured area. Keep it raised on a pillow or cushion above your heart whenever possible. This helps keep swelling down.

Sprains can take days to months to heal. As the pain and swelling improve, gently begin using the injured area. It should get better over time. Pain relievers available without a prescription, such as ibuprofen (Advil, Motrin IB, others) and acetaminophen (Tylenol, others), might help ease pain.

#### Prevention

You must restore strength and stability to the injured area before you go back to sports or fitness activities. A physical therapist or other sports medicine professional can show you exercises to help you heal and help keep you from injuring the area again.

When to call your doctor

The causes of sprains also can result in broken bones and other serious injuries. See your healthcare professional if your sprain doesn't get better after two or three days.

Toothache: First aid

Send to Kindle

## Overview

Tooth decay is the most common cause of toothaches for most children and adults. Bacteria that live in your mouth thrive on the sugars and starches in the food you eat. These bacteria form a sticky plaque that clings to the surface of your teeth.

Acids produced by the bacteria in plaque can eat through the hard, white coating on the outside of your teeth known as enamel. This creates an area of decay called a cavity. The first sign of decay may be pain when you eat something sweet, very cold or very hot. Sometimes decay will show as a brown or white spot on the tooth.

Other causes of a toothache can include:

- Food stuck between your teeth, especially if your teeth have spaces between them, or plaque buildup.
- Swelling or infection at the root of the tooth or in the gums.
- Trauma to the tooth, including injury or grinding your teeth.
- Sudden crack or chip of the tooth or tooth root.

- A split in the tooth or filling that occurs over time.
- Teeth that start to appear through the gums, such as with teething.
- Wisdom teeth that don't have enough room to appear through the gums or develop normally. This is called impacted wisdom teeth.
- A sinus infection that can be felt as pain in the teeth.

A toothache often needs some sort of treatment by your dentist.

Treatment

Self-care tips

Until you can see your dentist, try these self-care tips for a toothache:

- Rinse your mouth with warm water.
- Use dental floss to remove any food bits or plaque between your teeth.
- Consider taking a pain reliever you can buy without a prescription to dull the ache. But don't place aspirin or another painkiller directly against your gums because it may burn your gum tissue.
- If the toothache is caused by trauma to the tooth, apply a cold compress to the outside of your cheek.

Use caution with products containing benzocaine

Previous advice included putting a small amount of a nonprescription pain reliever containing benzocaine directly to the irritated tooth and gum for temporary relief. But benzocaine has been linked to a rare and serious, sometimes deadly, condition called methemoglobinemia (met-hee-muh-GLO-buh-nee-mee-uh). This condition lowers the amount of oxygen that the blood can carry. So follow these guidelines:

- Talk to your dentist, doctor or other healthcare professional before using any product that contains benzocaine.
- In children younger than 2 years old, don't use any products that contain benzocaine, such as teething gels with benzocaine (Anbesol, Orajel, others).
- Never use more than the recommended dose of benzocaine.
- Store products containing benzocaine out of the reach of children.

When to call your doctor

Call your dentist or other doctor right away if you have any of the following with a toothache:

- Pain that continues for more than a day or two.
- Fever.
- Symptoms of infection, such as swelling, pain when you bite, red gums or a foul-tasting discharge.

If you have trouble breathing or swallowing, go to the emergency department at a hospital.

Stroke: First aid

### Send to Kindle

A stroke happens when there's bleeding into the brain or when blood flow to the brain is blocked. When brain cells are deprived of essential nutrients, they start dying within minutes.

Seek immediate medical help. A stroke is a true emergency. The sooner treatment is given, the more likely it is that damage can be minimized. Every moment counts.

In the event of a possible stroke, use F.A.S.T. to help remember warning signs.

- Face. Does the face droop on one side when the person tries to smile?
- Arms. Is one arm lower when the person tries to raise both arms?
- Speech. Can the person repeat a simple sentence? Is speech slurred or hard to understand?
- Time. During a stroke every minute counts. If you see any of these signs, call 108 or your local emergency number right away.

Other signs and symptoms of a stroke, which come on suddenly, include:

- Weakness or numbness on one side of the body, including the face, arm or leg.
- Dimness, blurring or loss of vision, particularly in one eye. Or sudden double vision.
- Sudden, severe headache with no clear cause.
- Unexplained dizziness, unsteadiness or a sudden fall. Especially if dizziness is accompanied by any of the other signs or symptoms.

Having a stroke puts you at higher risk of having another. Risk factors also include having high blood pressure, smoking, having diabetes and having heart disease. Your risk of stroke increases as you age.

First aid for sunburn

Send to Kindle

If you've been sunburned, you'll notice the symptoms within a few hours of being in the sun too long. The affected skin will be painful, inflamed and hot to the touch. Blisters might develop. You may also have headache, fever or nausea.

When to seek emergency help

Seek immediate medical care if you are sunburned and have:

- A fever over 103 F (39.4 C) with vomiting.
- Confusion.
- An infection.
- Dehydration.
- Cold skin, dizziness or faintness.

### Treatment

First aid for sunburn includes the following:

- Take a pain reliever. Use a nonprescription pain reliever as soon as possible after getting too much sun. Examples are ibuprofen (Advil, Motrin IB, others) and acetaminophen (Tylenol, others). Or try a gel pain reliever that you rub on the skin.
- Cool the skin. Apply to the affected skin a clean towel dampened with cool tap water. Or take a cool bath. Add about 2 ounces (60 grams) of baking soda to the tub. Cool the skin for about 10 minutes several times a day.
- Apply a moisturizer, lotion or gel. An aloe vera lotion or gel or calamine lotion can be soothing. Try cooling the product in the refrigerator before applying. Avoid products with alcohol.
- Drink extra water for a day. This helps prevent dehydration.
- Leave blisters alone. An intact blister can help the skin heal. If a blister does break, trim off the dead skin with a clean, small scissors. Gently clean the area with mild soap and water. Then apply an antibiotic ointment to the wound and cover it with a nonstick bandage.
- Protect yourself from the sun. While your skin heals from the sunburn, stay out of the sun or use other sun-protection measures.
- Apply a soothing medicated cream. For mild to moderate sunburn, apply nonprescription 1% hydrocortisone cream to the affected area three times a day for three days. Try cooling the product in the refrigerator before applying.
- Treat sunburned eyes. Apply a clean towel dampened with cool tap water. Don't wear contacts until your eye symptoms have gone away. Don't rub your eyes.

When to call your doctor

Seek medical care for large blisters or those that form on the face, hands or genitals. Also seek medical help if you have worsening pain, headache, confusion, nausea, fever, chills, eye pain or vision changes, or signs of infection. Signs of infection are blisters with swelling, pus or streaks.

Tick bites: First aid

Send to Kindle

Overview

Most tick bites are painless and cause only minor signs and symptoms, such as a change in skin color, swelling or a sore on the skin.

But some ticks spread bacteria that cause illnesses, including Lyme disease and Rocky Mountain spotted fever. In general, to spread Lyme disease a tick needs to be attached to a person's skin for at least 36 hours. Other infections can be transferred in a few hours or even a few minutes.

When to seek emergency help

Call 108 or your local emergency number if you develop:

- A severe headache
- Difficulty breathing
- Paralysis
- Heart palpitations

#### Treatment

To take care of a tick bite:

- Remove the tick promptly and carefully. Use fine-tipped forceps or tweezers to grasp the tick as close to the skin as possible. Gently pull out the tick using a slow and steady upward motion. Avoid twisting or squeezing the tick. Do not handle the tick with bare hands. Do not use petroleum jelly, fingernail polish or a hot match to remove a tick.
- Secure the tick and take a picture. A picture of the tick can help you and your health care provider identify what type it is and whether you are at risk of a transmitted disease. You can trap the tick in a piece of tape for disposal in the garbage. Your provider may want to see the tick or a photo if you develop new symptoms.
- Wash your hands and the bite site. Use warm water and soap, rubbing alcohol, or an iodine scrub.

When to call your doctor

Contact your healthcare professional if:

- You aren't able to completely remove the tick. The longer the tick remains attached to the skin, the greater the risk of getting a disease from it. Your skin may also get irritated.
- The rash gets bigger. A small bump may appear at the site of the tick bite. This is typical. If it develops into a larger rash or you develop a rash anywhere, possibly with a bull's-eye pattern, it may be a sign of Lyme disease. The rash usually appears within 3 to 14 days.

Consult your provider even if the rash disappears because you may still be at risk of having the disease. Your risk of contracting a disease from a tick bite depends on where you live or travel to, how much time you spend outside in woody and grassy areas, and how well you protect yourself.

- You develop flu-like signs and symptoms. Fever, chills, fatigue, muscle and joint pain, and a headache may accompany the rash.
- You think the bite site is infected. Signs and symptoms include pain, change in skin color or oozing from the site.
- You think you were bitten by a deer tick. You may need antibiotics.

If possible, bring the tick, or a photo of the tick, with you to your doctor's appointment.

Tooth loss: First aid

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How to give first aid for tooth loss

By Mayo Clinic Staff

Overview

It's sometimes possible to successfully replant a permanent tooth that has been knocked out. It's critical to replant the tooth right away or as quickly as possible. If replanting the tooth doesn't happen quickly after the tooth is knocked out and properly handled, it's not likely to be a success. So it's vital to get emergency dental care. But you must follow the steps below right away — before you see a dentist.

#### Treatment

- Handle your tooth by the top, also called the crown, only don't touch the roots.
- Carefully look at the crown and root to see if any part of either appears to be missing or cracked. Let the dentist know. Damage to the tooth may make replanting it less likely to be successful.
- Don't rub the tooth or scrape it to remove dirt, food or blood. Don't wrap the tooth in tissue or cloth. This damages the root surface, making the tooth less likely to survive.
- If your tooth has dirt or other material on it, gently rinse your tooth briefly with cow's milk or your own saliva. Don't use tap water or hold the tooth under running water, because too much tap water could kill the cells on the root surface that help reattach the tooth.
- Try to put your tooth back into the socket. If the tooth doesn't go all the way into the socket, bite down slowly and gently on gauze, a napkin or a damp paper towel to help keep the tooth in place. Hold the tooth in place until you see your dentist.
- If you can't put your tooth back into the socket, place it right away in a container with cow's milk or your own saliva that you spit into the container. Or use a product you can buy without a prescription that preserves a knocked-out tooth, if you can get the product quickly. Look for a product approved by the American Dental Association.
- Get emergency dental care. If your dentist's office isn't open, go to the emergency department at a hospital.

Baby teeth are not replanted if they're knocked out.

For permanent teeth, if you can see a sharp surface or shiny surface, there's a chance that part of the root is still in the socket. In this situation, the tooth can still be put into the socket. But replanting the knocked-out tooth is less likely to be successful.