



Deck General – Safety

First Aid

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Which situation may require you to administer artificial respiration?

- drowning**
- poisoning**
- electrocution**
- All of the above.**

See REF226

In all but the most severe cases, how should bleeding from a wound be controlled?

- applying direct pressure to the wound**

See REF232

A man has suffered a burn on the arm. There is extensive damage to the skin with charring present. How is this injury classified using standard medical terminology?

- Third-degree burn**

See REF236

What is the FIRST treatment for a surface burn?

- flood, bathe, or immerse the burned area in cold water**

What can you do if a person gets something in his or her eye and you see that it is not embedded?

- remove it with a moist, cotton-tipped applicator**

What can be determined about an injury from examining the condition of a victim's pupils?

- Whether or not the brain is functioning properly**

How should you treat a person suffering from heat exhaustion?

- give him sips of cool water**

Which is a symptom of traumatic shock?

- Weak, rapid pulse**
- Pale, cold skin**
- Restlessness and anxiety**
- All of the above.**

Unless there is danger of further injury, a person with a compound fracture should not be moved until bleeding is controlled and what action is taken?

- the fracture is immobilized**

See REF225

What is MOST important when administering artificial respiration?

- clear airways**

See REF226

A person has suffered a laceration of the arm. Severe bleeding has been controlled by using a sterile dressing and direct pressure. What should you do next?

- Apply a pressure bandage over the dressing.**

See REF232

A man has a burn on his arm. There is reddening of the skin, blistering, and swelling. Using standard medical terminology what type of burn is this?

- second-degree burn**

See REF236

What should you do if a crewman suffers a second-degree burn on the arm?

- immerse the arm in cold water**

Which should NOT be a treatment for a person who has received a head injury and is groggy or unconscious?
Give a stimulant.

When it is necessary to remove a victim from a life threatening situation, what must the person giving first aid do?
avoid subjecting the victim to any unnecessary disturbance

How should a patient suffering from heat exhaustion be treated?
moved to a cool room and told to lie down

What are the symptoms of a fractured back?
pain at the site of the fracture and possible numbness or paralysis below the injury

What is the primary purpose of a splint applied in first aid?
Immobilize a fracture
See REF225

After pinching a victim's nostrils, how can a rescuer best provide an airtight seal during mouth to mouth ventilation?
by applying his mouth tightly over the victim's mouth
See REF226

How does bleeding from a vein appear?
dark red and has a steady flow
See REF232

When treating a chemical burn, what is the minimum amount of time you should flood the burned area?
five minutes
See REF236

Which of the following medical conditions has symptoms of: burning pain with redness of the skin, an irritating rash, blistering or loss of skin and or toxic poisoning?
chemical burn

Where can a rescuer most easily check to determine whether or not an adult victim has a pulse?
carotid artery in the neck

What is a convenient and effective system of examining the body of an injury victim?
Check the corresponding (left versus right) parts of the body.

A person with diabetes has received a minor leg injury. What symptoms would indicate the onset of a diabetic coma?
slurred speech and loss of coordination

What is an effective method for moving patients with spinal injuries onto a spine board?
four man log roll

You are treating a shipmate with a compound fracture of the lower arm. Which action should you take?
Apply a bulky, sterile, pressure dressing to control bleeding, then apply a temporary splint, and obtain medical advice.
See REF225

How can you recognize the necessity for administering artificial respiration?
blue color and lack of breathing
See REF226

How does blood flowing from a cut artery appear?

bright red and in spurts

See REF232

A victim has suffered a second-degree burn to a small area of the lower arm. What is the proper treatment for this injury?

Immerse the arm in cold water for 1 to 2 hours, apply burn ointment, and bandage.

See REF236

What would be the result of physical exertion on the part of a person who has fallen into cold water?

it will increase the rate of heat loss from the body

Seasickness is caused by rolling or rocking motions which affect fluids in what body part?

inner ear

When giving first aid, in addition to conducting primary and secondary surveys, what should you be familiar with?

the limits of your capabilities

What are symptom(s) of a ruptured appendix?

Muscle tenseness in almost the entire abdomen

What is the primary concern in aiding a back injury patient?

avoiding possible injury to the spinal cord by incorrect handling

Which is the most serious type of fracture?

Compound

See REF225

What should you do in order to initiate CPR on a drowning victim?

begin mouth-to-mouth ventilations

See REF226

Ordinarily, bleeding from a vein may be controlled by what method?

applying direct pressure to the wound

See REF232

A man has suffered a burn on the arm. There is a reddening of the skin but no other apparent damage. Using standard MEDICAL terminology, what type of burn is this?

First-degree burn

See REF236

What should you do for a crew member who has suffered frostbite to the toes of both feet?

immerse the feet in warm water

Which procedure should NOT be done for a person who has fainted?

Give pain reliever.

What should you look for evidence of if a victim is unconscious?

irregular breathing

What is the primary action when a patient is suspected of having appendicitis?

confine to bed until helicopter arrives

What is the procedure for checking for spinal cord damage in an unconscious patient?

Prick the skin of the hands and the soles of the feet with a sharp object to check for reaction

How deeply should the sternum be depressed when applying chest compressions on an adult victim during CPR?

1-1/2 to 2 inches

See REF226

Which statement is CORRECT with respect to inserting an airway tube?

Only a trained person should attempt to insert an airway tube.

See REF228

What is the preferred method of controlling external bleeding?

direct pressure on the wound

See REF232

Chemical burns are caused by the skin coming in contact with what substance(s)?

acids or alkalies

See REF236

What is the most effective treatment for warming a crew member suffering from hypothermia?

bundling the body in blankets to rewarm gradually

What is the most useful drug to reduce mild fever?

aspirin

What should you look for evidence of if a victim is unconscious?

irregular breathing

What are the symptoms of sugar diabetes?

increased appetite and thirst

You are attempting to administer CPR to a victim. When you blow into his mouth it is apparent that no air is getting into the lungs. What should you do?

Re-tip the head and try again.

See REF226

What should a observer do if a victim is coughing and wheezing from a partial obstruction of the airway?

allow the person to continue coughing and dislodge the obstruction on his own

See REF229

When a person is in shock, how will their skin appear?

cold and damp

See REF233

What can be caused by severe airway burns?

complete obstruction of respiratory passages

Which of the following is a treatment of frostbite?

warming exposed parts rapidly

What does first aid mean?

emergency treatment at the scene of the injury

Medical treatment aboard a vessel should not go beyond examination and emergency care without first consulting

_____.
a medical doctor

What should be given to a diabetic who suffers an insulin reaction and is conscious?

orange juice

What should a person do after being revived by artificial respiration?

be kept lying down and warm

See REF226

What action should you take if a shipmate chokes suddenly, cannot speak, and starts to turn blue?

perform the Heimlich maneuver

See REF229

After an accident the victim may go into shock and die. What should be done to help prevent shock?

Keep the person lying down and at a comfortable temperature.

See REF233

What is the immediate and most effective first aid treatment for chemical burns?

flood the affected area with water

Which of the following describes the condition of Hypothermia?

when the rate of heat loss of the body exceeds the rate of heat production

What are the symptoms of sea sickness?

nausea and dizziness

Which statement describes a compound fracture?

a fracture where the bone may be visible

How is epilepsy, a chronic nervous disorder characterized?

muscular convulsions with partial or complete loss of consciousness

You are administering chest compressions during CPR. Where on the victim's body should the pressure be applied?

Lower half of the sternum

See REF226

For small, first-degree burns, what is the quickest method to relieve pain?

immerse the burn in cold water

See REF230

EXCEPT when suffering from a head or chest injury a patient in shock should be placed in which position?

Head down and feet up

See REF233

What is the most important concern in treating a person with extensive burns?

preventing infection

Which of the following is a symptom of mild hypothermia?

increased pulse and increased breathing rate

What is the primary use of antiseptics?

prevent infection

How should a person suffering from possible broken bones and internal injuries be treated?

not be moved but made comfortable until medical assistance arrives

What should you do if a crew member is having an epileptic convulsion?

keep the victim from injuring him or herself

The rescuer can best provide an airtight seal during mouth-to-mouth resuscitation by pinching the victim's nostrils and

applying his mouth tightly over the victim's mouth

See REF227

In reviving a person who has been overcome by gas fumes, what would you AVOID doing?

Giving stimulants

See REF231

In any major injury, first aid includes the treatment for the injury and what secondary condition?

for traumatic shock

See REF233

What is the basic emergency care for third degree electrical burns?

cover the burned area with a clean cloth and transport the patient to a medical facility

You are attending to survivors after abandoning ship. Several of the personnel have a slow pulse and slow breathing rates. Which of the following is the most probable cause of these conditions?

moderate hypothermia

What is the proper stimulant for an unconscious person?

ammonia inhalant

How should you FIRST treat a simple fracture?

preventing further movement of the bone

What is the most important consideration while providing assistance to a victim of an epileptic seizure?

prevent patient from hurting himself

While carrying out artificial respiration how should rescuers be changed out?

without losing the rhythm of respiration

See REF226

A person who gets battery acid in an eye should IMMEDIATELY wash the eye with what liquid?

water

What is a treatment for traumatic shock?

Administer fluids.

See REF233

What should you do when treating a person for third-degree burns?

cover the burns with thick, sterile dressings

A survivor has been pulled from the water off the coast of Greenland. The patient is in a state of confusion and has ceased shivering. Which of the following best describes the patient's condition?

the patient is suffering from moderate hypothermia

What should you avoid when administering first aid?

unnecessary haste and appearance of uncertainty

What should you do if a crew member is unconscious and the face is flushed?

lay the crew member down with the head and shoulders slightly raised

How should the pain be relieved when a patient is suspected of having appendicitis?
keeping an ice bag over the appendix area

What is the MOST important element in administering CPR?
starting the treatment quickly
See REF226

When should a tourniquet be used to control bleeding?
when all other means have failed
See REF232

A patient in shock should NOT be placed in which position?
Arms above their head
See REF233

If a rescuer finds an electrical burn victim in the vicinity of live electrical equipment or wiring, what would be the first action to take?
get assistance to shut down electrical power in the area

Your vessel is in distress and the order has been given to abandon ship. If you must enter the water which of the following would aid in preventing hypothermia?
apply as many layers of clothing as possible before donning a survival suit to preserve body heat

What is normal mouth temperature?
98.6°F

What are the symptoms of heat exhaustion?
pale and clammy skin

Why are persons who have swallowed a non-petroleum based poison given large quantities of warm soapy water or warm salt water?
to induce vomiting

What is the FIRST thing the rescuer must do if the patient vomits during mouth-to-mouth resuscitation?
turn the patient's body to the side, sweep out the mouth and resume mouth-to-mouth ventilation
See REF226

As a last resort, what can a tourniquet can be used for?
stop uncontrolled bleeding
See REF232

What are the symptoms of sun stroke?
Temperature is high, pulse is strong and rapid, skin is hot and dry.
See REF234

How should a minor heat burn of the eye be treated?
gently flooding with water

A person is exhibiting signs of hypothermia and starts to shiver, what does this indicate?
the body is trying to generate more heat

What is it called when you sort accident victims according to the severity of their injuries?
triage

What does the treatment(s) of heat exhaustion consist(s) of?

moving to a shaded area and laying down

When providing first aid to a victim of gas poisoning, the MOST important symptom to check for is _____.

suspension of breathing

What action must be taken if a shipmate suffers a heart attack and stops breathing?

immediately start CPR

See REF226

A seaman has a small, gaping laceration of the arm that is not bleeding excessively. What can be done as an alternative to suturing to close the wound?

Apply butterfly strips, then a sterile dressing.

See REF232

If a person is unconscious from electric shock, the first action is to remove him from the electrical source. What is the secondary action?

determine if he is breathing

See REF235

What is of importance when a patient has an electrical burn?

look for a second burn, which may have been caused by the current passing through the body

You have abandoned ship and are in a liferaft with several other members of the crew. One person in the life raft is exhibiting symptoms of hypothermia. Which of the following could you do to aid the victim?

use direct body to body contact to warm him

Where there are multiple accident victims, which condition should be the first to receive emergency treatment?

Suspension of breathing

What causes heat exhaustion?

excessive loss of water and salt from the body

What is the major cause of shock in burn victims?

massive loss of fluid through the burned area

What is a sign(s) of respiratory arrest requiring artificial respiration?

blue color and lack of breathing

See REF226

What is the appropriate first aid treatment for small cuts and open wounds?

stop the bleeding, clean, medicate, and cover the wound

See REF232

Since electrical burn victims may be in shock, what is the FIRST medical indicator to check for?

breathing and heartbeat

See REF235

What should be the FIRST treatment of a person suspected of having airway burns?

maintain an open airway

Your vessel is taking on water and the order has been given to abandon ship. Which of the following is an effective method of combating hypothermia if you must enter the water?

apply multiple layers of clothing before donning an immersion suit
only swim if necessary to reach survival craft or other survivors
when entering the water attempt to do so gradually
All of the above.

Where there are multiple accident victims, which type of injury should be the first to receive emergency treatment?
Severe shock

What are the symptoms of heat stroke?
hot and dry skin, high body temperature

Why should a person being treated for shock should be wrapped in warm coverings?
to preserve body heat

What should you do before CPR is started?
establish an open airway
See REF226

A person reports to you with a fishhook in his thumb, what procedure should you use to remove it?
push the barb through, cut it off, then remove the hook

What precaution should be taken when treating burns caused by contact with dry lime?
Before washing, the lime should be brushed away gently.
See REF236

How are First-, second-, and third-degree burns classified?
according to the layers of skin affected

When abandoning ship in cold waters, what actions can be taken to minimize the effects of entering the water?
utilize embarcation ladders or a fire hose to lower yourself to a survival craft

What must the rescuer be able to do in managing a situation involving multiple injuries?
rapidly evaluate the seriousness of obvious injuries
See REF237

What is the principle treatment of sunstroke?
cooling, removing to shaded area, and lying down

What is the best treatment for preventing traumatic shock after an accident?
keep the victim warm and dry while lying down

REF225

A fracture is a broken bone. It requires medical attention. If the broken bone is the result of major trauma or injury, call 911 or your local emergency number. Also call for emergency help if: * The person is unresponsive, isn't breathing or isn't moving. Begin cardiopulmonary resuscitation (CPR) if there's no respiration or heartbeat. * There is heavy bleeding. * Even gentle pressure or movement causes pain. * The limb or joint appears deformed. * The bone has pierced the skin. * The extremity of the injured arm or leg, such as a toe or finger, is numb or bluish at the tip. * You suspect a bone is broken in the neck, head or back. * You suspect a bone is broken in the hip, pelvis or upper leg (for example, the leg and foot turn outward abnormally). Don't move the person except if necessary to avoid further injury. Take these actions immediately 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. * Immobilize the injured area. 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 professional help isn't readily available, apply a splint to the area above and below the fracture sites. Padding the splints can help reduce discomfort. * Apply ice packs to limit swelling and help relieve pain until emergency personnel arrive. Don't apply ice directly to the skin — wrap the ice in a towel, 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 and, if possible, elevate the legs.

REF226

Cardiopulmonary resuscitation (CPR) is a lifesaving technique useful in many emergencies, including heart attack or near drowning, in which someone's breathing or heartbeat has stopped. In 2010, the American Heart Association updated its guidelines to recommend that everyone — untrained bystanders and medical personnel alike — begin CPR with chest compressions. It's far better to do something than to do nothing at all if you're fearful that your knowledge or abilities aren't 100 percent complete. Remember, the difference between your doing something and doing nothing could be someone's life. Here's advice from the American Heart Association: * Untrained. If you're not trained in CPR, then provide hands-only CPR. That means uninterrupted chest compressions of about 100 a minute until paramedics arrive (described in more detail below). You don't need to try rescue breathing. * Trained, and ready to go. If you're well trained and confident in your ability, begin with chest compressions instead of first checking the airway and doing rescue breathing. Start CPR with 30 chest compressions before checking the airway and giving 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 about 100 a minute. (Details described below.) The above advice applies to adults, children and infants needing CPR, but not newborns. CPR can keep oxygenated blood flowing to the brain and other vital organs until more definitive medical treatment can restore a normal heart rhythm. When the heart stops, the absence of oxygenated blood can cause irreparable brain damage in only a few minutes. A person may die within eight to 10 minutes. To learn CPR properly, take an accredited first-aid training course, including CPR and how to use an automatic external defibrillator (AED). Before you begin Before starting CPR, check: * Is the person conscious or unconscious? * If the person appears unconscious, tap or shake his or her shoulder and ask loudly, "Are you OK?" * If the person doesn't respond and two people are available, one should call 911 or the local emergency number and one should begin CPR. If you are alone and have immediate access to a telephone, call 911 before beginning CPR — unless you think the person has become unresponsive because of suffocation (such as from drowning). In this special case, begin CPR for one minute and then call 911 or the local emergency number. * If an AED is immediately available, deliver one shock if instructed by the device, then begin CPR. Remember to spell C-A-B In 2010, the American Heart Association changed its long-held acronym of ABC to CAB — circulation, airway, breathing — to help people remember the order to perform the steps of CPR. This change emphasizes the importance of chest compressions to help keep blood flowing through the heart and to the brain. Circulation: Restore blood circulation with chest compressions 1. Put the person on his or her back on a firm surface. 2. Kneel next to the person's neck and shoulders. 3. Place the heel of one 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 and position your shoulders directly above your hands. 4. Use your upper body weight (not just your arms) as you push straight down on (compress) the chest at least 2 inches (approximately 5 centimeters). Push hard at a rate of about 100 compressions a minute. 5. 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 checking the airway and rescue breathing. Airway: Clear the airway 1. 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. 2. Check for normal breathing, taking no more than five or 10 seconds. Look for chest motion, listen for normal breath sounds, and feel for the person's breath on your cheek and ear. Gasping is not considered to be normal breathing. If the person isn't breathing normally and you are trained in CPR, begin mouth-to-mouth breathing. If you believe the person is unconscious from a heart attack and you haven't been trained in emergency procedures, skip mouth-to-mouth rescue breathing and continue chest compressions. 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. 1. With the airway open (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. 2. Prepare to give two rescue breaths. Give the first rescue breath — lasting one second — and watch to see if the chest rises. If it does rise, give the second breath. If the chest doesn't rise, repeat the head-tilt, chin-lift maneuver and then give the second breath. Thirty chest compressions followed by two rescue breaths is considered one cycle. 3. Resume chest compressions to restore circulation. 4. If the person has not begun moving after five cycles (about two minutes) and an automatic external defibrillator (AED) is available, apply it and follow the prompts. Administer one shock, then resume CPR — starting with chest compressions — for two more minutes before administering a second shock. If you're not trained to use an AED, a 911 operator may be able to guide you in its use. Use pediatric pads, if available, for children ages 1 through 8. Do not use an AED for babies younger than age 1. If an AED isn't available, go to step 5 below. 5. 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 8 is essentially the same as that for an adult. The differences are as follows: * If you're alone, perform five cycles of compressions and breaths on the child — this should take about two minutes — before calling 911 or your local emergency number or using an AED. * Use only one hand to perform heart compressions. * Breathe more gently. * Use the same compression-breath rate as is used for adults: 30 compressions followed by two breaths. This is one cycle. Following the two breaths, immediately begin the next cycle of compressions and breaths. * After five cycles (about two minutes) of CPR, if there is no response and an AED is available, apply it and follow the prompts. Use pediatric pads if available. If pediatric pads aren't available, use adult pads. Continue until the child moves or help arrives. To perform CPR on a baby Most cardiac arrests in babies occur from lack of oxygen, such as from drowning or choking. If you know the baby has an airway obstruction, perform first aid for choking. If you don't know why the baby isn't breathing, perform CPR. To begin, examine the situation. Stroke the baby and watch for a response, such as movement, but don't shake the baby. If there's no response, follow the CAB procedures below and time the call for help as follows: * If you're the only rescuer and CPR is needed, do CPR for two minutes — about five cycles — before calling 911 or your local emergency number. * If another person is available, have that person call for help immediately while you attend to the baby. Circulation: Restore blood circulation 1. Place the baby on his or her back on a firm, flat surface, such as a table. The floor or ground also will do. 2. 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. 3. Gently compress the chest about 1.5 inches (about 4 cm). 4. Count aloud as you pump in a fairly rapid rhythm. You should pump at a rate of 100 compressions a minute. Airway: Clear the airway 1. 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. 2. In no more than 10 seconds, put your ear near the baby's mouth and check for breathing: Look for chest motion, listen for breath sounds, and feel for breath on your cheek and ear. Breathing: Breathe for the infant 1. Cover the baby's mouth and nose with your mouth. 2. 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) to slowly breathe 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. 3. If the baby's chest still doesn't rise, examine the mouth to make sure no foreign material is inside. If the object is seen, sweep it out with your finger. If the airway seems blocked, perform first aid for a choking baby. 4. Give two breaths after every 30 chest compressions. 5. Perform CPR for about two minutes before calling for help unless someone else can make the call while you attend to the baby. 6. Continue CPR until you see signs of life or until medical personnel arrive. In the mouth-to-mouth method, which is recommended whenever possible, you must establish an airtight seal. This normally is done by pinching the victim's nostrils and applying your mouth tightly over the victim's mouth. Blow your breath into the victim at a rate of 12 to 15 times a minute, removing your mouth between breaths to allow exhaling. The victim's chest should rise during breathing and fall during exhaling. If this doesn't happen, reposition the victim's head and chin and be sure you have sealed the nose and mouth.

REF227

In the mouth-to-mouth method, which is recommended whenever possible, you must establish an airtight seal. This normally is done by pinching the victim's nostrils and applying your mouth tightly over the victim's mouth. Blow your breath into the victim at a rate of 12 to 15 times a minute, removing your mouth between breaths to allow exhaling. The victim's chest should rise during breathing and fall during exhaling. If this doesn't happen, reposition the victim's head and chin and be sure you have sealed the nose and mouth.

REF228

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detail below). You don't need to try rescue breathing. * Trained, and ready to go. If you're well trained and confident in your ability, begin with chest compressions instead of first checking the airway and doing rescue breathing. Start CPR with 30 chest compressions before checking the airway and giving 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 about 100 a minute. (Details described below.) The above advice applies to adults, children and infants needing CPR, but not newborns. CPR can keep oxygenated blood flowing to the brain and other vital organs until more definitive medical treatment can restore a normal heart rhythm. When the heart stops, the absence of oxygenated blood can cause irreparable brain damage in only a few minutes. A person may die within eight to 10 minutes. To learn CPR properly, take an accredited first-aid training course, including CPR and how to use an automatic external defibrillator (AED). Before you begin Before starting CPR, check: * Is the person conscious or unconscious? * If the person appears unconscious, tap or shake his or her shoulder and ask loudly, "Are you OK?" * If the person doesn't respond and two people are available, one should call 911 or the local emergency number and one should begin CPR. If you are alone and have immediate access to a telephone, call 911 before beginning CPR — unless you think the person has become unresponsive because of suffocation (such as from drowning). In this special case, begin CPR for one minute and then call 911 or the local emergency number. * If an AED is immediately available, deliver one shock if instructed by the device, then begin CPR. Remember to spell C-A-B In 2010, the American Heart Association changed its long-held acronym of ABC to CAB — circulation, airway, breathing — to help people remember the order to perform the steps of CPR. This change emphasizes the importance of chest compressions to help keep blood flowing through the heart and to the brain. Circulation: Restore blood circulation with chest compressions 1. Put the person on his or her back on a firm surface. 2. Kneel next to the person's neck and shoulders. 3. Place the heel of one 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 and position your shoulders directly above your hands. 4. Use your upper body weight (not just your arms) as you push straight down on (compress) the chest at least 2 inches (approximately 5 centimeters). Push hard at a rate of about 100 compressions a minute. 5. 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 checking the airway and rescue breathing. Airway: Clear the airway 1. 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. 2. Check for normal breathing, taking no more than five or 10 seconds. Look for chest motion, listen for normal breath sounds, and feel for the person's breath on your cheek and ear. Gasping is not considered to be normal breathing. If the person isn't breathing normally and you are trained in CPR, begin mouth-to-mouth breathing. If you believe the person is unconscious from a heart attack and you haven't been trained in emergency procedures, skip mouth-to-mouth rescue breathing and continue chest compressions. 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. 1. With the airway open (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. 2. Prepare to give two rescue breaths. Give the first rescue breath — lasting one second — and watch to see if the chest rises. If it does rise, give the second breath. If the chest doesn't rise, repeat the head-tilt, chin-lift maneuver and then give the second breath. Thirty chest compressions followed by two rescue breaths is considered one cycle. 3. Resume chest compressions to restore circulation. 4. If the person has not begun moving after five cycles (about two minutes) and an automatic external defibrillator (AED) is available, apply it and follow the prompts. Administer one shock, then resume CPR — starting with chest compressions — for two more minutes before administering a second shock. If you're not trained to use an AED, a 911 operator may be able to guide you in its use. Use pediatric pads, if available, for children ages 1 through 8. Do not use an AED for babies younger than age 1. If an AED isn't available, go to step 5 below. 5. 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 8 is essentially the same as that for an adult. The differences are as follows: * If you're alone, perform five cycles of compressions and breaths on the child — this should take about two minutes — before calling 911 or your local emergency number or using an AED. * Use only one hand to perform heart compressions. * Breathe more gently. * Use the same compression-breath rate as is used for adults: 30 compressions followed by two breaths. This is one cycle. Following the two breaths, immediately begin the next cycle of compressions and breaths. * After five cycles (about two minutes) of CPR, if there is no response and an AED is available, apply it and follow the prompts. Use pediatric pads if available. If pediatric pads aren't available, use adult pads. Continue until the child moves or help arrives. To perform CPR on a baby Most cardiac arrests in babies occur from lack of oxygen, such as from drowning or choking. If you know the baby has an airway obstruction, perform first aid for choking. If you don't know why the baby isn't breathing, perform CPR. To begin, examine the situation. Stroke the baby and watch for a response, such as movement, but don't shake the baby. If there's no response, follow the CAB procedures below and time the call for help as follows: * If you're the only rescuer and CPR is needed, do CPR for two minutes — about five cycles — before calling 911 or your local emergency number. * If another person is available, have that person call for help immediately while you attend to the baby. Circulation: Restore blood circulation 1. Place the baby on his or her back on a firm, flat surface, such as a table. The floor or ground also will do. 2. 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. 3. Gently compress the chest about 1.5 inches (about 4 cm). 4. Count aloud as you pump in a fairly rapid rhythm. You should pump at a rate of 100 compressions a minute. Airway: Clear the airway 1. 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. 2. In no more than 10 seconds, put your ear near the baby's mouth and check for breathing: Look for chest motion, listen for breath sounds, and feel for breath on your cheek and ear. Breathing: Breathe for the infant 1. Cover the baby's mouth and nose with your mouth. 2. 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) to slowly breathe 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. 3. If the baby's chest still doesn't rise, examine the mouth to make sure no foreign material is inside. If the object is seen, sweep it out with your finger. If the airway seems blocked, perform first aid for a choking baby. 4. Give two breaths after every 30 chest compressions. 5. Perform CPR for about two minutes before calling for help unless someone else can make the call while you attend to the baby. 6. Continue CPR until you see signs of life or until medical personnel arrive.

REF229

Choking occurs when a foreign object becomes lodged in the throat or windpipe, blocking the flow of air. In adults, a piece of food often is the culprit. Young children often swallow small objects. Because choking cuts off oxygen to the brain, administer first aid as quickly as possible. The universal sign for choking is hands clutched to the throat. If the person doesn't give the signal, look for these indications: Inability to talk Difficulty breathing or noisy breathing Inability to cough forcefully Skin, lips and nails turning blue or dusky Loss of consciousness If choking is occurring, the Red Cross recommends a "five-and-five" approach to delivering first aid: Give 5 back blows. First, deliver five back blows between the person's shoulder blades with the heel of your hand. Give 5 abdominal thrusts. Perform five abdominal thrusts (also known as the Heimlich maneuver). Alternate between 5 blows and 5 thrusts until the blockage is dislodged. The American Heart Association doesn't teach the back blow technique, only the abdominal thrust procedures. It's OK not to use back blows, if you haven't learned the technique. Both approaches are acceptable. To perform abdominal thrusts (Heimlich maneuver) on someone else: Stand behind the person. Wrap your arms around the waist. Tip the person forward slightly. Make a fist with one hand. Position it slightly above the person's navel. Grasp the fist with the other hand. Press hard into the abdomen with a quick, upward thrust — as if trying to lift the person up. Perform a total of 5 abdominal thrusts, if needed. If the blockage still isn't dislodged, repeat the five-and-five cycle. If you're the only rescuer, perform back blows and abdominal thrusts before calling 911 or your local emergency number for help. If another person is available, have that person call for help while you perform first aid. If the person becomes unconscious, perform standard CPR with chest compressions and rescue breaths. To perform abdominal thrusts (Heimlich maneuver) on yourself: First, if you're alone and choking, call 911 or your local emergency number immediately. Then, although you'll be unable to effectively deliver back blows to yourself, you can still perform abdominal thrusts to dislodge the item. Place a fist slightly above your navel. Grasp your fist with the other hand and bend over a hard surface — a countertop or chair will do. Shove your fist inward and upward. To clear the airway of a pregnant woman or obese person: Position your hands a little bit higher than with a normal Heimlich maneuver, at the base of the breastbone, just above the joining of the lowest ribs. Proceed as with the Heimlich maneuver, pressing hard into the chest, with a quick thrust. Repeat until the food or other blockage is dislodged or the person becomes unconscious. To clear the airway of an unconscious person: Lower the person on his or her back onto the floor. Clear the airway. If a blockage is visible at the back of the throat or high in the throat, reach a finger into the mouth and sweep out the cause of the blockage. Be careful not to push the food or object deeper into the airway, which can happen easily in young children. Begin cardiopulmonary resuscitation (CPR) if the object remains lodged and the person doesn't respond after you take the above measures. The chest compressions used in CPR may dislodge the object. Remember to recheck the mouth periodically. To clear the airway of a choking infant younger than age 1: Assume a seated position and hold the infant facedown on your forearm, which is resting on your thigh. Thump the infant gently but firmly five times on the middle of the back using the heel of your hand. The combination of gravity and the back blows should release the blocking object. Hold the infant faceup on your forearm with the head lower than the trunk if the above doesn't work. Using two fingers placed at the center of the infant's breastbone, give five quick chest compressions. Repeat the back blows and chest thrusts if breathing doesn't resume. Call for emergency medical help. Begin infant CPR if one of these techniques opens the airway but the infant doesn't resume breathing. If the child is older than age 1, give abdominal thrusts only. To prepare yourself for these situations, learn the Heimlich maneuver and CPR in a certified first-aid training course.

REF230

Cold water will relieve the pain and is effective first aid for 1st. and 2nd. degree burns. To distinguish a minor burn from a serious burn, the first step is to determine the extent of damage to body tissues. The three burn classifications of first-degree burn, second-degree burn and third-degree burn will help you determine emergency care: First-degree burn

The least serious burns are those in which only the outer layer of skin is burned, but not all the way through. The skin is usually red, with swelling, and pain sometimes is present. Treat a first-degree burn as a minor burn unless it involves substantial portions of the hands, feet, face, groin or buttocks, or a major joint, which requires emergency medical attention. Second-degree burn When the first layer of skin has been burned through and the second layer of skin (dermis) also is burned, the injury is called a second-degree burn. Blisters develop and the skin takes on an intensely reddened, splotchy appearance. Second-degree burns produce severe pain and swelling. If the second-degree burn is no larger than 3 inches (7.6 centimeters) in diameter, treat it as a minor burn. If the burned area is larger or if the burn is on the hands, feet, face, groin or buttocks, or over a major joint, treat it as a major burn and get medical help immediately. For minor burns, including first-degree burns and second-degree burns limited to an area no larger than 3 inches (7.6 centimeters) in diameter, take the following action: Cool the burn. Hold the burned area under cool (not cold) running water for 10 or 15 minutes or until the pain subsides. If this is impractical, immerse the burn in cool water or cool it with cold compresses. Cooling the burn reduces swelling by conducting heat away from the skin. Don't put ice on the burn. Cover the burn with a sterile gauze bandage. Don't use fluffy cotton, or other material that may get lint in the wound. Wrap the gauze loosely to avoid putting pressure on burned skin. Bandaging keeps air off the burn, reduces pain and protects blistered skin. Take an over-the-counter pain reliever. These include aspirin, ibuprofen (Advil, Motrin, others), naproxen (Aleve) or acetaminophen (Tylenol, others). Use caution when giving aspirin to children or teenagers. Though aspirin is approved for use in children older than age 2, children and teenagers recovering from chickenpox or flu-like symptoms should never take aspirin. Talk to your doctor if you have concerns. Minor burns usually heal without further treatment. They may heal with pigment changes, meaning the healed area may be a different color from the surrounding skin. Watch for signs of infection, such as increased pain, redness, fever, swelling or oozing. If infection develops, seek medical help. Avoid re-injuring or tanning if the burns are less than a year old — doing so may cause more extensive pigmentation changes. Use sunscreen on the area for at least a year. Caution Don't use ice. Putting ice directly on a burn can cause a burn victim's body to become too cold and cause further damage to the wound. Don't apply butter or ointments to the burn. This could cause infection. Don't break blisters. Broken blisters are more vulnerable to infection. Third-degree burn The most serious burns involve all layers of the skin and cause permanent tissue damage. Fat, muscle and even bone may be affected. Areas may be charred black or appear dry and white. Difficulty inhaling and exhaling, carbon monoxide poisoning, or other toxic effects may occur if smoke inhalation accompanies the burn. For major burns, call 911 or emergency medical help. Until an emergency unit arrives, follow these steps: Don't remove burned clothing. However, do make sure the victim is no longer in contact with smoldering materials or exposed to smoke or heat. Don't immerse large severe burns in cold water. Doing so could cause a drop in body temperature (hypothermia) and deterioration of blood pressure and circulation (shock). Check for signs of circulation (breathing, coughing or movement). If there is no breathing or other sign of circulation, begin CPR. Elevate the burned body part or parts. Raise above heart level, when possible. Cover the area of the burn. Use a cool, moist, sterile bandage; clean, moist cloth; or moist towels. Get a tetanus shot. Burns are susceptible to tetanus. Doctors recommend you get a tetanus shot every 10 years. If your last shot was more than five years ago, your doctor may recommend a tetanus shot booster.

REF231

Do not give stimulants to an unconscious person (e.g., one who is overcome by gas fumes).

REF232

If possible, before you try to stop severe bleeding, wash your hands to avoid infection and put on synthetic gloves. Don't reposition displaced organs. If the wound is abdominal and organs have been displaced, don't try to push them back into place — cover the wound with a dressing. For other cases of severe bleeding, follow these steps: 1. Have the injured person lie down and cover the person to prevent loss of body heat. If possible, position the person's head slightly lower than the trunk or elevate the legs. This position reduces the risk of fainting by increasing blood flow to the brain. If possible, elevate the site of bleeding. 2. While wearing gloves, remove any obvious dirt or debris from the wound. Don't remove any large or more deeply embedded objects. Don't probe the wound or attempt to clean it at this point. Your principal concern is to stop the bleeding. 3. Apply pressure directly on the wound until the bleeding stops. Use a sterile bandage or clean cloth and hold continuous pressure for at least 20 minutes without looking to see if the bleeding has stopped. Maintain pressure by binding the wound tightly with a bandage (or a piece of clean cloth) and adhesive tape. Use your hands if nothing else is available. If possible, wear rubber or latex gloves or use a clean plastic bag for protection. 4. Don't remove the gauze or bandage. If the bleeding continues and seeps through the gauze or other material you are holding on the wound, don't remove it. Instead, add more absorbent material on top of it. 5. Squeeze a main artery if necessary. If the bleeding doesn't stop with direct pressure, apply pressure to the artery delivering blood to the area of the wound. Pressure points of the arm are on the inside of the arm just above the elbow and just below the armpit. Pressure points of the leg are just behind the knee and in the groin. Squeeze the main artery in these areas against the bone. Keep your fingers flat. With your other hand, continue to exert pressure on the wound itself. 6. Immobilize the injured body part once the bleeding has stopped. Leave the bandages in place and get the injured person to the emergency room as soon as possible. If you

suspect internal bleeding, call 911 or your local emergency number. Signs of internal bleeding may include: * Bleeding from body cavities, such as the ears, nose, rectum or vagina * Vomiting or coughing up blood * Bruising on neck, chest, abdomen or side (between ribs and hip) * Wounds that have penetrated the skull, chest or abdomen * Abdominal tenderness, possibly accompanied by rigidity or spasm of abdominal muscles * Fractures * Shock, indicated by weakness, anxiety, thirst or skin that's cool to the touch

REF233

Shock may result from trauma, heatstroke, blood loss, an allergic reaction, severe infection, poisoning, severe burns or other causes. When a person is in shock, his or her organs aren't getting enough blood or oxygen, which if untreated, can lead to permanent organ damage or death. Various signs and symptoms appear in a person experiencing shock: * The skin is cool and clammy. It may appear pale or gray. * The pulse is weak and rapid. Breathing may be slow and shallow, or hyperventilation (rapid or deep breathing) may occur. Blood pressure is below normal. * The person may be nauseated. He or she may vomit. * The eyes lack luster and may seem to stare. Sometimes the pupils are dilated. * The person may be conscious or unconscious. If conscious, the person may feel faint or be very weak or confused. Shock sometimes causes a person to become overly excited and anxious. If you suspect shock, even if the person seems normal after an injury: * Call 911 or your local emergency number. * Have the person lie down on his or her back with feet about a foot higher than the head. If raising the legs will cause pain or further injury, keep him or her flat. Keep the person still. * Check for signs of circulation (breathing, coughing or movement). If absent, begin CPR. * Keep the person warm and comfortable. Loosen belt and tight clothing and cover the person with a blanket. Even if the person complains of thirst, give nothing by mouth. * Turn the person on his or her side to prevent choking if the person vomits or bleeds from the mouth. * Seek treatment for injuries, such as bleeding or broken bones.

REF234

Sunstroke is caused by a failure in your body's cooling system. When its cooling system fails, your body is overwhelmed by excess heat; this is when sunstroke occurs. Anything that disrupts your body's thermostat can increase the likelihood of sunstroke. These may include such factors as underlying medical conditions, medications, physical characteristics, or age. Dehydration contributes to sunstroke. Dehydration happens when your body excretes more water than it takes in. For example, increased water loss through excessive urination is a common side effect of caffeine, alcohol, and many prescription and over-the-counter medications. When the water supply in your body is low, cells begin to pull water from the bloodstream, forcing organs to work harder. Dehydration can also affect the skin's ability to cool the body efficiently. The heart must pump an adequate supply of blood to the skin in order for the skin to cool the body. When you are dehydrated, the blood's volume is reduced, so the cooling process becomes less effective. The taxing effect on the body escalates into the symptoms of heat-related illness. Prolonged exposure to the sun contributes to sunstroke. When body fluids are not adequately replenished, sun exposure can cause rapid dehydration. Even on mild or overcast days, the sun can have dangerous health effects. The heat index is a measure calculated by the National Weather Service. It indicates how hot it "feels" outside in the shade when both the air temperature and the relative humidity are considered. In the direct sun, the heat index rises even higher. The following heat indices are associated with these heat-related conditions: 80°F-90°F: Fatigue possible after prolonged physical activity or sun exposure. 90°F-105°F: Heat exhaustion, heat cramps, and sunstroke possible after prolonged physical activity or sun exposure. 105°F-130°F: Heat exhaustion, heat cramps, and sunstroke likely after prolonged physical activity or sun exposure. 130°F and higher: Sunstroke likely with sustained exposure to the sun.

REF235

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. Call 911 or your local emergency number immediately if any of these signs or symptoms occur: * Cardiac arrest * Heart rhythm problems (arrhythmias) * Respiratory failure * Muscle pain and contractions * Burns * Seizures * Numbness and tingling * Unconsciousness While waiting for medical help, follow these steps: * Look first. Don't touch. The person may still be in contact with the electrical source. Touching the person may pass the current through you. * Turn off the source of electricity, if possible. If not, move the source away from you and the person, using a nonconducting object made of cardboard, plastic or wood. * Check for signs of circulation (breathing, coughing or movement). If absent, begin cardiopulmonary resuscitation (CPR) immediately. * Prevent shock. Lay the person down and, if possible, position the head slightly lower than the trunk, with the legs elevated. After coming into contact with electricity, the person should see a doctor to check for internal injuries, even if he or she has no obvious signs or symptoms. Caution * Don't touch the person with your bare hands if he or she is still in contact with the electrical current. * Don't get near high-voltage wires until the power is turned off. Stay at least 20 feet away — farther if wires are jumping and sparking. * Don't move a person with an electrical injury unless the person is in immediate danger.

REF236

To distinguish a minor burn from a serious burn, the first step is to determine the extent of damage to body tissues. The three burn classifications of first-degree burn, second-degree burn and third-degree burn will help you determine emergency care: First-degree burn The least serious burns are those in which only the outer layer of skin is burned, but not all the way through. The skin is usually red, with swelling, and pain sometimes is present. Treat a first-degree burn as a minor burn unless it involves substantial portions of the hands, feet, face, groin or buttocks, or a major joint, which requires emergency medical attention. Second-degree burn When the first layer of skin has been burned through and the second layer of skin (dermis) also is burned, the injury is called a second-degree burn. Blisters develop and the skin takes on an intensely reddened, splotchy appearance. Second-degree burns produce severe pain and swelling. If the second-degree burn is no larger than 3 inches (7.6 centimeters) in diameter, treat it as a minor burn. If the burned area is larger or if the burn is on the hands, feet, face, groin or buttocks, or over a major joint, treat it as a major burn and get medical help immediately. For minor burns, including first-degree burns and second-degree burns limited to an area no larger than 3 inches (7.6 centimeters) in diameter, take the following action: Cool the burn. Hold the burned area under cool (not cold) running water for 10 or 15 minutes or until the pain subsides. If this is impractical, immerse the burn in cool water or cool it with cold compresses. Cooling the burn reduces swelling by conducting heat away from the skin. Don't put ice on the burn. Cover the burn with a sterile gauze bandage. Don't use fluffy cotton, or other material that may get lint in the wound. Wrap the gauze loosely to avoid putting pressure on burned skin. Bandaging keeps air off the burn, reduces pain and protects blistered skin. Take an over-the-counter pain reliever. These include aspirin, ibuprofen (Advil, Motrin, others), naproen (Aleve) or acetaminophen (Tylenol, others). Use caution when giving aspirin to children or teenagers. Though aspirin is approved for use in children older than age 2, children and teenagers recovering from chickenpox or flu-like symptoms should never take aspirin. Talk to your doctor if you have concerns. Minor burns usually heal without further treatment. They may heal with pigment changes, meaning the healed area may be a different color from the surrounding skin. Watch for signs of infection, such as increased pain, redness, fever, swelling or oozing. If infection develops, seek medical help. Avoid re-injuring or tanning if the burns are less than a year old — doing so may cause more extensive pigmentation changes. Use sunscreen on the area for at least a year. Caution Don't use ice. Putting ice directly on a burn can cause a burn victim's body to become too cold and cause further damage to the wound. Don't apply butter or ointments to the burn. This could cause infection. Don't break blisters. Broken blisters are more vulnerable to infection. Third-degree burn The most serious burns involve all layers of the skin and cause permanent tissue damage. Fat, muscle and even bone may be affected. Areas may be charred black or appear dry and white. Difficulty inhaling and exhaling, carbon monoxide poisoning, or other toxic effects may occur if smoke inhalation accompanies the burn. For major burns, call 911 or emergency medical help. Until an emergency unit arrives, follow these steps: Don't remove burned clothing. However, do make sure the victim is no longer in contact with smoldering materials or exposed to smoke or heat. Don't immerse large severe burns in cold water. Doing so could cause a drop in body temperature (hypothermia) and deterioration of blood pressure and circulation (shock). Check for signs of circulation (breathing, coughing or movement). If there is no breathing or other sign of circulation, begin CPR. Elevate the burned body part or parts. Raise above heart level, when possible. Cover the area of the burn. Use a cool, moist, sterile bandage; clean, moist cloth; or moist towels. Get a tetanus shot. Burns are susceptible to tetanus. Doctors recommend you get a tetanus shot every 10 years. If your last shot was more than five years ago, your doctor may recommend a tetanus shot booster.

REF237

What you need to do is to quickly assess everyone's injuries and put them into categories. This is also called triage. ... These casualties have injuries that are life threatening or people with breathing, cardiac or circulation problems. Priority 2 or yellow group are those who can be evacuated next.