

FIRST AID GUIDE

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This first aid guide is provided as a set of general instructions in using the materials included in the average first aid kit. It should be noted that this guide is also for the treatment of minor injuries, and that these general instructions are consistent with current standard first aid practices. Some portions of this guide are focused towards outdoor enthusiasts, which Dr. Stachiw is a participant, and may not reflect "normal" first-aid situations. Dr. Stachiw is not responsible or liable in any way for the use of this guide, or for when or how the caregiver provides first aid. Trained medical personnel should always treat serious injuries and persistent conditions as soon as possible.

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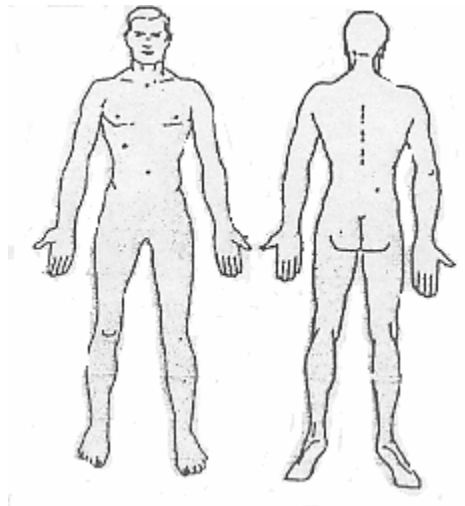


General Guidelines:

- First Aid is exactly as the term implies, the first aid given for an injury. It is not intended as a long-term solution to a problem, nor does it replace treatment provided by trained medical personnel.
- Before attempting to administer First Aid, you need to perform an initial assessment which should include: Safety (yours and the victims), mechanism of the injury (how did it happen), medical information devices ("Medic Alert" tags or bracelets), number of casualties (if more than one person involved), bystanders (those that might be able to help you).¹
- Always avoid contact with blood or other body fluids. Use latex gloves whenever possible.
- If administering mouth-to-mouth resuscitation, use a face shield, following instructions on the packet.
- In an emergency, you should follow these priorities:
 - Check that you are not placing yourself in danger by providing first aid. If you become injured you will not be able to help others!
 - Check to see if the person is conscious. If conscious and they are breathing, stay with the victim while sending somebody else to call for help.

¹ Standard First Aid Course: NAVEDTRA 13199.

- Check to see if the person is breathing. If you are alone, call 911 first if possible before starting rescue breathing.
- Check for a pulse. If no pulse found begin CPR if you know the technique.
- Check for bleeding. Immediately stop bleeding by applied direct pressure before you worry about any "fancy" bandages.
- Check for neck and spinal injuries, injuries on the head. You should never move the victim unless it's absolutely necessary.
- If the person is unconscious do not attempt to give them fluids.
- **Do not** become involved in using treatment methods beyond your skill. Recognize the limits of your competence. Only perform First Aid procedures that are within your scope of knowledge and skills.²
- Always stay calm and **do not ever give up**. Continue to provide aid to the victim until help arrives!



² First Aid Guide for School Emergencies

First Things First³

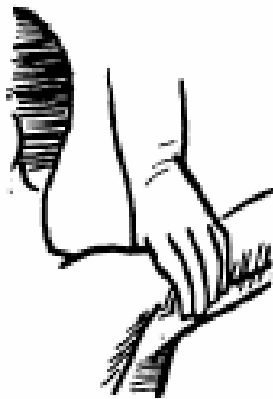
All too often we get caught up in some minor detail and miss the big picture, or to put it another way, "we miss the forest for the trees". It is important to keep in mind the following priorities when performing first aid.

Always perform first aid in the following order:

1. **Restore Breathing:** A person becomes brain dead in 6 minutes if breathing is not restored.



2. **Stop Severe Bleeding:** Without blood, oxygen can not get to the vital organs of a persons body.



3. **Treat Shock:** A victims mind and body must work together in order to be healthy. Never overlook shock situations, be they mental or physical.

³ USDA Handbook #227

4. **Call advanced medical help immediately:** Always realize that you are providing a stop-gap function to an injured person. Always obtain trained medical assistance as soon as possible. It also is good first aid practice to have even minor wounds checked when expert medical assistance is available.

Animal Bites

Bites from wildlife, cats & dogs.

1. Wash wound for several minutes with soap and water.



2. Apply antiseptic.
3. Apply sterile pad or bandage to protect the wound.
4. **CALL DOCTOR AND/OR POLICE IMMEDIATELY.** If bite is from an unknown dog or other animal, try to have animal caught for examination by authorities. If the animals must be killed, take precautions not to injure the brain of the animal since this is where rabies examinations are conducted. They can then determine if victim will need a series of anti-rabies injections.

Artificial Respiration⁴

Mouth-to-Mouth

or

Mouth-to-Nose Rescue Breathing

- **Place casualty on back immediately**
Don't waste time moving to a better place, loosening clothing, or draining water from lungs.
- **Quickly clear mouth and throat**
Remove mucus, food and other obstructions



- **Tilt head back as far as possible**
The head should be in a "chin-up" or "sniff" position and the neck stretched



- **Lift lower jaw forward**
Grasp jaw by placing thumb into corner of mouth. Do not hold or depress tongue.



- **Pinch nose shut (or seal mouth)**

⁴ From Graphic Training Aid 21-45, Headquarters, Department of the Army, October 1961

Prevent air leakage

- **Open your mouth wide and blow**

Take a deep breath and blow forcefully (except for babies) into mouth or nose until you see chest rise



- **Listen for exhalation**

Quickly remove your mouth when chest rises. Lift jaw higher if casualty makes snoring or gurgling sounds.

- **Repeat (last two steps) 12 to 20 times per minute**

Continue until casualty begins to breath normally

- **For infants seal both mouth and nose with your mouth**

Blow with small puffs of air from your cheeks

Bleeding

Internal

Bleeding is most likely to occur in the stomach, lungs, or bowels. Blood from the lungs is coughed up; from the stomach vomited; from the bowels it appears in the stools. With internal bleeding, signs of restlessness, weakness, pallor, thirst and a faint, rapid pulse are usually present.



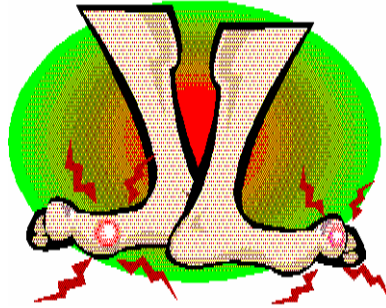
In an accident where internal bleeding may have occurred, contact a doctor as soon as possible. While you wait, keep the patient quiet, comfortably warm, and lying flat. Give him nothing to drink—**not even** water. When moving injured person to advanced medical facilities, only transport (if possible) in a laying position.

External

Place a pressure dressing (several layers of sterile gauze) over the wound. Secure it in place firmly enough to stop the bleeding or hold it in place with firm hand pressure. Whenever possible, elevate the wound.



If no sterile bandages are available, use a thick pad of the cleanest cloth on hand. Sheets, towels, handkerchiefs or other freshly laundered clothing can be used if nothing better is available. In a serious emergency, when severe bleeding is encountered, do not hesitate to apply direct pressure with your bare hand, unless better methods are available.



BLISTERS

1. Use shears to cut a donut-shaped piece of moleskin. Be sure the hole in the middle is slightly larger than the blister.
2. Place over the blister.

Note: The same technique can also be used when a "hot spot" develops to prevent the formation of a blister, or to ease pressure on corns and calluses.

Burns⁵

Burns can be one of the most traumatic injuries to deal with. The victim can be in severe pain, there can be the smell of burnt flesh and depending on the degree of the burn, and charred clothing can be attached to the victims flesh. The first step in dealing with burns is to determine the level of the burn. It should be realized that First and second degree burns can be caused by prolonged exposure to intense sunlight.

Classification of burn:

- First Degree - skin is reddened
- Second Degree - skin is blistered
- Third Degree - skin cooked or charred, the burn may extend into the underlying tissue. In sever cases skin or appendages may be burned off.

Treatment:

- **First degree and second degree burns, only covering up to about 1% (like the size of a hand) body surface:**
 1. Wash/soak burned portions in cold water
 2. Wash burned are in soapy water
 3. Place sterile gauze over burned area
 4. Bandage burned area snugly
- **Large burns of any degree**
 1. If a doctor or hospital is available within 30 minutes or less:
 - Treat victim for shock
 - Get victim to advanced medical treatment, attempt no treatment

⁵ In part from USDA Handbook #227



2. If advanced medical aid is not readily available (like in an outdoor/camping/backpacking setting):
 - Remove clothing from burned area. Cut around clothing/cloth that sticks to burned area
 - Apply antiseptic cream to burned area
 - Cover burned area with sterile dressings
 - Bandage snugly (not too tight however)
 - Treat for shock
 - If victim is conscious, allow them to drink all the water they desire. Commercial sport drinks are even better than water if available
 - Get victim as soon as possible to advanced medical support

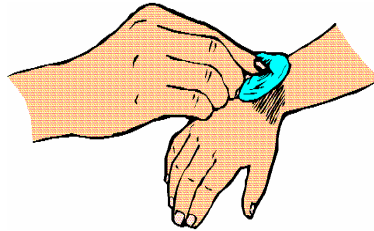
Do Not!

- Touch the burned area with fingers
- Breathe on the burn
- Break or drain blisters
- Change any dressings that have been applied. Only advanced medical support should change or remove any dressings applied as first aid



CUTS AND SCRAPES

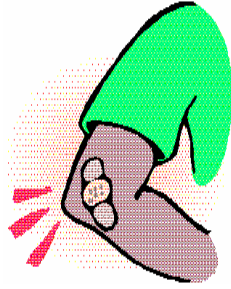
1. Remove as much loose debris from the wound as possible, rinsing with clean water, if available.



- 2 Gently clean wound with an antiseptic wipe.
3. If the wound gapes open slightly, it can be pulled closed with a butterfly closure.
4. Apply a thin layer of antibiotic ointment.



5. Cover the wound with an adhesive bandage. For larger wounds, use gauze pads and adhesive tape.



6. Watch for signs of infection, such as:
 - Swelling, redness or warmth around the wound.
 - Discharge of pus.
 - Red streaks around the wound

7. If infection develops, consult a physician.



DRUGS

- Aspirin and non-aspirin can be used for temporary relief of headaches, minor aches and pains, and for fever reduction.
- Chlorpheniramine maleate (Chlorphen) temporarily relieves the symptoms of hay fever and other respiratory allergies.

Read all warnings and follow the dosage directions on individual packets.

Frostbite^{6 7}

Damage to the skin resulting from exposure to low temperatures (cold) and/or wind. Often affects parts of the body that have the poorest circulation of blood and the greatest exposure to the cold. Hands, feet, face, and ears are the most commonly affected body parts.



Symptoms:

- Considerable pain and redness in fingers, toes, cheeks, ears or nose.
- Grayish white color due to frozen tissues

Much like burns, the degree of severity is described as first degree, second and third degree.

First Degree: Skin is white or slightly yellow, there is a burning or itching feeling.

Second Degree: Skin is reddened or swollen and there is no feeling.

Third Degree: If the skin is waxy or hard, the skin tissue has died. There may be blistering. Severe cases may result in damage to

⁶ The Little First Aid Book, Amber Raine, 2002.

⁷ Information in part from: USDA Handbook #227

the muscles, tendons and nerves. Blood clots may form and inhibit circulation causing gangrene.

Treatment:

- Until victim can be brought indoors, cover exposed parts of the body
- In all cases, go indoors, thaw affected area by immersion in water slightly warmer (NOT HOT) than bath water. After immersion, pat the affected area dry. Do not rub or chafe frozen members. Apply warm, not hot cloths. Give warm liquids. Handle patient gently and don't expose him to excessive heat. Do not have patient drink alcoholic beverages or smoke as this constricts the blood vessels.
- Get advanced medical assistance as soon as possible



INSECT BITES & STINGS⁸

GENERAL INSECT STINGS

1. If a stinger is present, remove it by scraping away or gently pulling it out with forceps.
2. Apply paste of baking soda and cold cream or use a commercially available sting aid for topical relief of mosquito and other insect bites. Calamine lotion will also relieve itching
3. If multiple stings, or unusual reaction (i.e. excessive reddish skin or breathing issues), or a history of severe reactions, take victim immediately to advanced medical support.



Bed Bug Bites

Description: Bedbugs are flat-bodied, oval, reddish brown and about a $\frac{1}{4}$ in size. Although not painful at first, bed bug bites usually become red, swollen and itchy. Reactions to bites range from mild to severe.⁹

Treatment: Apply paste of baking soda and cold cream or use a commercially available sting aid for topical relief of bed bug bites.

⁸ Information in part from: USDA Handbook #227

⁹ Information in part from www.denvergov.org Division of Animal Control & from the University of Nebraska at Lincoln Cooperative Extension Service.



Bee & Wasp Stings

Description: A very sore area that is red and swollen. Usually there is a stinger protruding from the skin.

Treatment:

1. Scrape the stinger away with the edge of a credit card, knife blade, or thumbnail. Do not try and squeeze the stinger out, as this will cause more bee/wasp venom into the skin.
2. After removing the stinger, wash the area with soap and water.
3. Apply a cool washcloth or ice pack.
4. Some people have symptoms of severe allergic reactions are:
 - shortness of breath
 - thickening of the tongue
 - sweating
 - an anaphylactic shock
 - Seek medical help immediately if you have an allergic reaction.



Chiggers¹⁰

Description:¹¹

It is generally visible only with magnification. Chiggers are different than mites in that they feed only in the larval stage. The chigger larvae get onto the skin and move around until they meet some obstacle, for example the waistband of underwear, the elastic band of socks, etc. They then attach to the skin and begin feeding. The area around where they are feeding usually turns red with an itching sensation.

Treatment:

1. Wash area with soap and water
2. Apply local topical hydrocortisone cream; antihistamine, or local anesthetic cream should be applied to reduce the itching. Calamine lotion can also be used.
3. The wounds must not be scratched



¹⁰ Drawing of a chigger from North Carolina Department of Environment and Natural Resources

¹¹ Information for this first aid procedure provided in part from the Oklahoma College of Pharmacy with additional information available via their website located at: www.oklahomapoison.org

Preventive:

Spray your feet and ankles with a quality insect repellent containing Deet¹². Dimethyl phthalate or flowers of sulphur can also be used in the socks and around the ankles¹³.

**Fire-Ant Sting**

Description: After being stung by the fire ant, tiny painful red bumps appear. After an hour or so, they usually change into blisters.

Treatment:^{14,15}

1. Apply ice pack at ten minute intervals for a period up to $\frac{1}{2}$ hour
2. When through with ice pack treatment, apply bite soothing lotion such as calamine.
3. Some people have symptoms of severe allergic reactions are:
 - shortness of breath
 - thickening of the tongue
 - sweating
 - an anaphylactic shock
 - Seek medical help immediately if you have an allergic reaction.

¹² DEET is produced by [Morflex, Inc](#)

¹³ Information in part from: USDA Handbook #227

¹⁴ Treatment information in part obtained from Windaroo Valley High, with more information on Fire Ants available at: www.windvallshs.qld.edu.au/curriculum/fireants/index.html

¹⁵ Additional treatment information obtained from Queensland Government, with more information on Fire Ants available at: www.dpi.qld.gov.au/fireants/

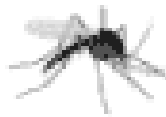


Flea Bite

Description: Usually flea bites are suspected when tiny itchy red bumps appear below the knee.

Treatment:

1. Reduce itching by applying an ice pack
2. After removing ice pack and drying skin, applying soothing lotion such as calamine



Mosquito Bites

Description: Have a long proboscis (snout) for sucking blood. They are most active in shady, low light, damp or marshy areas.

Treatment: Use sting aid for topical relief of mosquito bites.



Scorpion Sting

Description: Usually found in the south western portions of the US. Less dangerous than the black widow, with the exception of babies.

Treatment:

1. Cold packs
2. Get victim to advanced medical support as soon as possible.



Spider Bites

Description and Identification of Spiders:



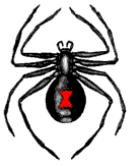
**Brown¹⁶
Recluse**

Description	Habitat	Problem
Oval-body with eight legs. Light yellow to medium dark brown. Has distinctive mark shaped like a fiddle on its back. Body from 3/8 to 1/2 inch long, 1/4 inch wide, 3/4 inch from toe-to-toe	Prefers dark places where it's seldom disturbed. Outdoors, old trash piles, debris and rough ground. In-doors attics, storerooms closets. Found in Southern Midwestern US	Bites producing an almost painless sting that may not be noticed at first. Shy, it bites only when annoyed or surprised. Left alone, it won't bite. Victim rarely sees the spider.

Treatment:

1. Keep victim lying down, quite and warm. If the victim must be moved, use a stretcher
2. Get advanced medical aid immediately

¹⁶ Information obtained in part from The Ohio State University Extension Service

Description	Habitat	Problem	Description
 <p data-bbox="298 453 500 533">Black Widow Spider</p>	<p data-bbox="529 281 792 407">Color varies from dark brown to glossy black.</p> <p data-bbox="529 453 792 1199">Densely covered with short microscope hairs. Red or yellow hourglass marking on-the underside of the female's abdomen. Male does not have this and is not poisonous. Overall length with legs extended is 1 1/2 inch. Body is 1/4 inch wide.</p>	<p data-bbox="824 281 1084 625">Found with eggs and web. Outside: in vacant rodent holes, under stones, logs, in long grass, hollow stumps & bush piles.</p> <p data-bbox="824 634 1084 1066">Inside in dark corners of barns, garages, piles of stone wood. Most bites occur in outhouses. Found in Southern Canada through US, except Alaska.</p>	<p data-bbox="1117 281 1373 361">Bites causing local redness.</p> <p data-bbox="1117 369 1373 537">Two tiny spots may appear. Pain follows almost immediately.</p> <p data-bbox="1117 546 1373 630">Larger muscles become rigid.</p> <p data-bbox="1117 638 1373 764">Body temperature rises slightly. Profuse perspiration and tendency toward nausea follow.</p> <p data-bbox="1117 772 1373 940">It's usually difficult to breathe or talk. May cause constipation, urine retention.</p>

Treatment:

1. Keep victim lying down, quite and warm. If the victim must be moved, use a stretcher
2. Get advanced medical aid immediately



Tarantula

Description	Habitat	Problem
Large dark, "spider" with a furry covering. From 6 to 7 inches in toe-to-toe diameter.	Found in South western US and the tropics. Only the varieties found in the tropics are poisonous.	Bites produce a pinprick sensation with negligible effect. It will not bite unless teased.

Treatment:

1. Wash the wound with soap and water
2. Apply a cold pack
3. Apply antibiotic cream to prevent infection



TICKS

Description: Oval with small head, the body is not divided into definite-segments. Gray or brown. Measures from 1/4:inch-to 3/4 inch when mature. They can burrow into the skin.

Prevention:

1. Examine body and clothes after any exposure to tick infested areas, and always remove ticks immediately



2. Have a partner inspect your backside
3. Before entering tick infested area, cover neck, legs, back of neck and arms with an insecticide containing Deet¹⁷

Treatment:

1. Grasp the tick with forceps as close to the skin surface as possible and pull slowly and firmly. Do not twist or crush the tick.
2. After tick removal, swab the area with iodine solution,
3. If you cannot remove the tick, or if its mouthparts remain embedded, get medical care.
4. If rash or flu-like symptoms appear (see list below), get medical help immediately.
 - Chills and fever

¹⁷ DEET is produced by [Morflex, Inc](#)

- sweating
- Pains in bones, muscles and joints
- back and head aches
- Coughing, vomiting and weakness
- Rash appears in 2 to 4 days

Poisonous Plants¹⁸



Prevention:

1. Wash thoroughly any areas of your body that might have come in contact with the poisonous plants forming thick suds
2. Wash clothing and shoes in thick hot suds
3. Avoid smoke from these plants if burned
4. Wear protective clothing

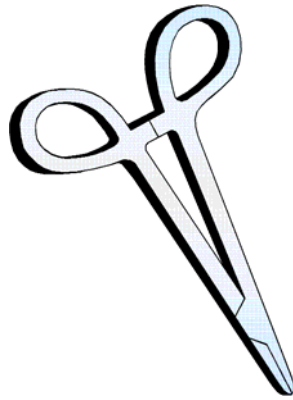
¹⁸ Information in part from: USDA Handbook #227

Sore Throat

Gargle with hot salt water. Give aspirin. If condition persists, contact physician.

Splinters

1. If an end of the splinter is exposed, gently pull it out with forceps. If no end is exposed, determine the splinter's orientation and press with your finger on the embedded end, pushing the splinter toward the entrance of the wound until an end is exposed.



2. After removal, swab the area with iodine solution or antibiotic ointment. Watch for signs of infection.



Sprains

One of most common injuries in outdoor activities is sprains. A sprain is defined as tears of ligaments supporting a joint. Symptoms include pain at the joint, swelling and possibly discoloration.



Treatment:

Elevate the sprained portion of the body if possible. For sprained wrist, put in a sling, place sprained ankles on a pillow elevated

Apply cold compress (i.e. ice in a bag) or allow cold running water over the sprain for the first 6 or 8 hours. After 24 hours, apply hot compress

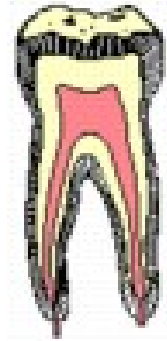
Stomach Pains

Suspect appendicitis. Check lower right-hand side of abdomen. If area is hard and in constant pain, apply ice and call a doctor. Keep patient quiet. If no fever and no firmness exists in lower right abdomen, apply

hot-water bottle or warm cloths and give only bland foods. Avoid milk and fruit juices.

Sunburn

If area is not blistered, apply thin layer of soothing ointment. If skin is blistered, apply sterile dressings saturated with baking soda mixture (2 tablespoons to 1 quart water). Watch for infection and don't expose burned area to sun until healed.



Toothache

For temporary relief, take aspirin and pack tooth with oil of clove. See your dentist immediately.



Emergency Telephone Numbers

Ambulance: _____

Doctor: _____

Poison Control Center: _____

Hospital: _____

Police Department: _____

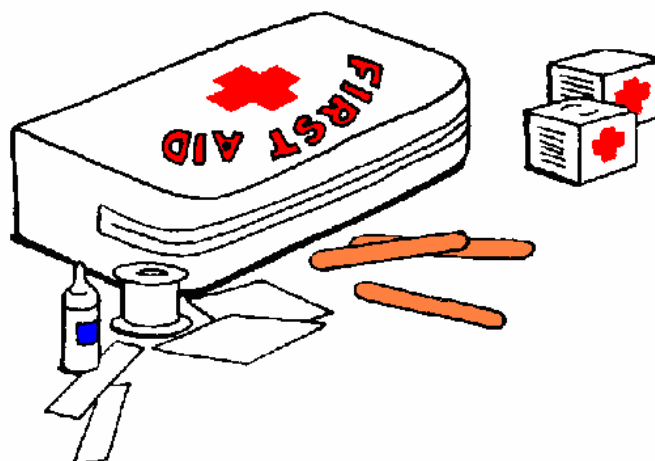
Fire Department: _____

24-Hour Pharmacy _____

Electric Company: _____

Gas Company: _____

Other: _____



First Aid Kits¹⁹

In any emergency a family member or you yourself may be cut, burned or suffer other injuries. If you have these basic supplies you are better prepared to help your loved ones when they are hurt. Remember, many injuries are not life threatening and do not require immediate medical attention. Knowing how to treat minor injuries can make a difference in an emergency. Consider taking a first aid class, but simply having the following things can help you stop bleeding, prevent infection and assist in decontamination.

Things you should have:

- Two pairs of Latex, or other **sterile gloves** (if you are allergic to Latex).
- **Sterile dressings** to stop bleeding.
- **Cleansing agent/soap** and antibiotic towelettes to disinfect.
- **Antibiotic ointment** to prevent infection.
- **Burn ointment** to prevent infection.
- **Adhesive bandages** in a variety of sizes.

¹⁹ U.S. Department of Homeland Security. "Get A Kit", December 11, 2004.

- **Eye wash solution** to flush the eyes or as general decontaminant.
- **Thermometer**
- **Prescription medications** you take every day such as insulin, heart medicine and asthma inhalers. You should periodically rotate medicines to account for expiration dates.
- **Prescribed medical supplies** such as glucose and blood pressure monitoring equipment and supplies.

Things it may be good to have:

- Cell Phone
- Scissors
- Tweezers
- Tube of petroleum jelly or other lubricant

Non-prescription drugs:

- Aspirin or non-aspirin pain reliever
- Anti-diarrhea medication
- Antacid (for upset stomach)
- Laxative

Depending on the activity or situation, different first aid kits are desirable. Listed below are the suggested contents of several first aid kits.

Insect Bite Kit - useful at picnics, ball games, and short duration hikes.

- antiseptic wipes
- antibiotic
- bandages
- aspirin

Road Rash Kit - useful for long duration vehicles rides

- surgical scrub brush
- surgical gloves
- bandage
- gauze
- tape
- antiseptic wipes
- iodine wipes

Family Kit - general purpose family first aid kit. You should have this kit around the house and another in each car

- tweezers
- scissors
- syringe
- benzoin 1oz.
- insect sting swabs
- a&d ointment
- aloe vera gel
- antiseptic towelletes
- gauze dressing
- non-adherent dressing
- 5*9 trauma pad
- gauze bandage
- tape
- adhesive strips
- adheshive bandages
- cotton tipped applicators
- cotton balls

- pill vials
- safety pins
- wash towelletes
- plastic Ziploc bag
- eye drops
- surgical scrub brush
- surgical gloves
- bandage
- gauze
- tape
- antiseptic wipes
- iodine wipes
- copy of this first aid guide

References

- First Aid Guide for Employees, United States Department of Agriculture, Handbook # 227, October 1962.
- First Aid Guide for School Emergencies, Virginia Department of Health
- STANDARD FIRST AID COURSE: NAVEDTRA 13119, Department of the Navy, Bureau of Medicine and Surgery, 2300 E Street, NW Washington, DC 20372-5300
- The Little First Aid Book: Important Facts for Saving a Life, Amber Raine, Ereader Book, Oct. 28, 2002
- Training Aid 21-45, Headquarters, Department of the Army, October 1961