

NAME _____
CLUB _____
BIRTHDATE _____
YEARS IN PROJECT _____
YEARS IN 4-H _____

SURVIVAL

SKILLS

HEALTH UNITS II and III

PROJECT 6

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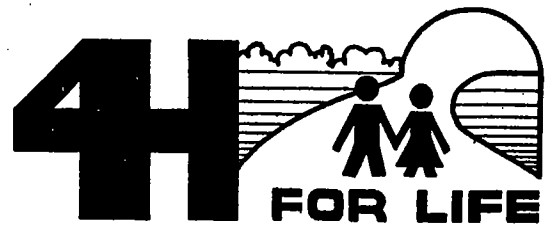


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DIRECTIONS

ALL INTERMEDIATE AND ADVANCED

4-H'ers:

Complete all activities in Unit II, Project 6, and the summary for Unit II, Project 6.



Discuss your ideas for special projects with your 4-H leader who can help you get off to a good start. There are others in your community who can also help you begin a project that will benefit you and others in your community:

- Physicians or other health professionals
- Local American Red Cross
- Local American Heart Association
- EMTs (emergency medical technicians)

ALL ADVANCED 4-H'ers:

Proceed at your own rate through Unit III, Project 6, and complete the summary for Unit III, Project 6.

OBJECTIVES

Project 6 will enable you to do the following:

1. Appreciate the importance of protecting yourself and others from injury and health problems.
2. Explain how to control and manage your fear during emergencies.
3. Explain how, when and why to perform these survival skills:
 - Pulse, temperature and blood pressure
 - Assessing an emergency
 - Cardiopulmonary resuscitation (CPR)
 - Prevention and treatment of auto accidents, bleeding, burns, choking, convulsions, drowning, shock, fractures, sprains, sunburn, sunstroke and heat exhaustion
4. List items to include in a first aid kit and how to use it.
5. Select survival skills projects you can pursue individually or as a club.

HEALTH UNIT II, PROJECT 6 (INTERMEDIATE AND ADVANCED LEVEL 4-H MEMBERS)

Survival Skills Activities

Activity 1.



Take the "Survival Skills" assessment again and compare your current score with the one you took in Project 1.

Survival Skills

	Yes or Not Applicable (NA) "2"	No or Not Sure "1"
1. I know how to do basic first aid procedures	2	1
2. I am familiar with water and boating safety procedures	2	1
3. I know how to swim and how to stay afloat	2	1
4. I never drink or use drugs while driving or operating machinery or farm equipment	2	1
5. I never ride with drivers who drink, or use drugs while driving	2	1

6. I wear safety belts 90% or more of the time I am in a vehicle	2	1
7. I stay within five mph of the speed limit	2	1
8. I have taken a course in driver education or defensive driving	2	1
9. I wear a helmet while riding a motor-bike	2	1
10. I stop on yellow if the light is changing	2	1
11. For every ten mph of speed, I maintain one car length distance between vehicles	2	1

TOTAL _____

a. What was your score from Project 1? _____

b. Any improvement or changes? _____

ANSWERS

- 1) **True.** The temperature rises in an effort to defend the attacking organisms.
- 2) **False.** However your adrenalin may pour out and cause your heart to beat faster and your face to flush.
- 3) **False.** Drink plenty of liquids to prevent dehydration.

d. Take your pulse before and after climbing two flights of stairs and note the difference in your heart beat after activity.

Before Climbing
_____/minute
After Climbing
_____/minute

e. List 3 ways you could use the vital signs-skills in helping yourself or others.

- 1) _____

- 2) _____

- 3) _____

ASSESSING AN EMERGENCY

First aid is first help. Do you know how to assess the nature of an emergency to help you decide what to do and when to do it? If in doubt about what to do, keep your cool and get help immediately. If you can't get help, **DO YOUR BEST BUT DON'T PANIC.** More about panic prevention later.

Activity 4.



Refer to the "Emergency Procedures" section to answer the questions below.

a. **Situation:** You come home from school and find your father passed out in the front yard; the lawn mower is nearby. Describe how you would handle this urgent problem.

b. **Situation:** You're talking to a friend and suddenly he falls to the floor. Describe how you would handle this emergency.

WHAT TO DO FOR SHOCK AND BLEEDING

Check the section in your project book on bleeding and shock to complete this next activity.

Activity 5.



A two-car collision occurs just ahead of you on the freeway. You stop and find that all of the passengers are all right except for the driver of the first

car, who has a severe head wound and is bleeding.

a. Describe what you would do in order of priority:

b. What steps could you take to prevent panic among the others and onlookers? _____

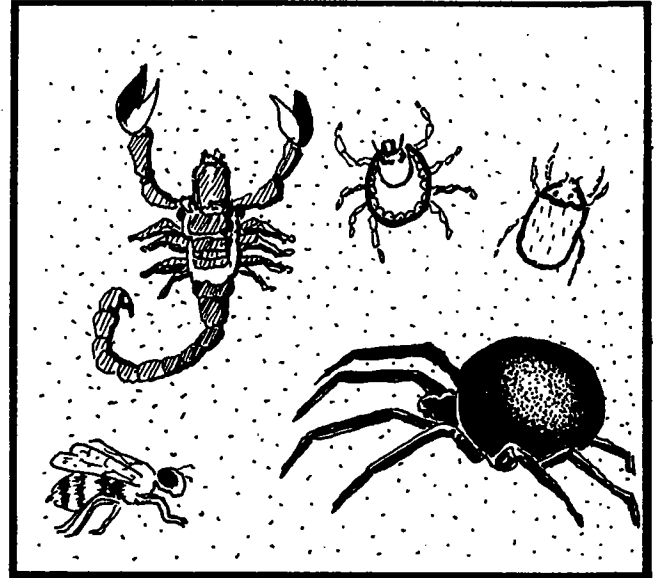
MYTHS AND TRUTHS ABOUT SNAKE BITES AND OTHER CREATURES

Snakes, bees, wasps, and spiders are common creatures you might encounter on a camping trip or even in your backyard. Over the years, numerous myths have been perpetuated. Can you separate fact from fiction?

Activity 6.



Circle T for true and F for false.



- T F 1) It's easy to tell whether you've been bitten by a poisonous snake because it will leave fang marks at the wound site.
- T F 2) If bitten by a poisonous snake, cut and suck the wound and apply a tourniquet and ice packs at once.

- T F 3) Snake bite kits are worthless.
- T F 4) People rarely die from bee stings.
- T F 5) The best treatment of a bee or wasp sting is tobacco juice.
- T F 6) Spider bites are nothing to worry about.

ANSWERS TO ACTIVITY 6.

- False.** Non-poisonous snakes do not have fangs. Poisonous snakes almost always leave one or more fang marks. A coral snake need only nick your skin with a tooth and you are poisoned. If there is pain, swelling, vomiting, weakness or shock, take the victim to the nearest medical facility.
- False.** All of these treatments have proven harmful. Incision and suction have proven to be useless; if done immediately, only 2 to 9% of the venom is retrieved. The use of a tourniquet is extremely dangerous and should be avoided. Ice packs only add frost bite to the impending problem and studies have documented that the loss of arms and legs were due to aggressive cryotherapy (ice packs).
- True.** Immediate first aid is to keep the victim lying down, treat him for shock and transport him to the nearest medical facility.
- True.** However, people who have a history of asthma, hay fever, or allergic reactions to bee stings should seek immediate medical assistance or death can occur. The reactions can worsen after successive stings. These victims should be desensitized by medical treatment.
- False.** Some people are highly allergic to bee and wasp stings. They should seek immediate medical assistance. Other victims should observe for severe swelling or soreness. If this occurs, seek medical attention.
- False.** Anyone who receives a bite from a black widow spider, a brown recluse spider, a scorpion, or a tarantula should seek immediate medical attention. A tetanus shot is usually recommended for those not allergic to horse serum.

WHY LEARN ABOUT CPR?

The state of Washington has conducted intensive CPR training for its citizens and as a result the survival rate from heart attacks and other accidents has improved markedly. This clearly demonstrates how useful CPR can be to the average person. You might be able to save a friend or family member.

Activity 7.



Refer to the section on CPR to answer the following questions.

a. List 8 situations in which you would need to use CPR.

1) _____

2) _____

3) _____

4) _____

5) _____

6) _____

7) _____

8) _____

b. How long do you have to administer CPR to a victim before lack of oxygen causes brain damage or death? _____ to _____ minutes.

c. List the ABC's of "CPR"

A _____

B _____

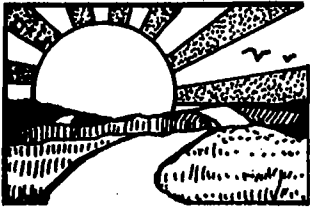
C _____

CONTROLLING FEAR AND PANIC

It's a natural physiological response to experience fear whenever you encounter an emergency or life-threatening situation. Your adrenal glands put out a substance called adrenalin that helps prepare you for "flight or fight." Your vision improves; your muscles strengthen; your heart beats harder and faster; and your circulation improves. All of these changes occur to help you prepare to deal with the emergency. So if you feel these bodily changes occur, don't become frightened but be reassured that these responses will help you react more quickly to the situation. Remember you may be in a situation where you encounter a crisis and will have to depend on the kindness of strangers. Don't be afraid to become involved.

One of the best ways to learn how to keep your cool during emergencies is to prepare yourself to react by knowing what to do so well that your response is practically automatic. This is why the American Red Cross and American Heart Association stress practicing CPR and other first aid skills until you can do them error-free!

Activity 8.



Here are some measures that will help you in controlling panic. List three of your own below.

- a. Try to remain calm or give the appearance of being calm.
- b. Assess the situation and think through what needs to be done first.
- c. Keep victims and onlookers calm by reassuring them verbally.
- d. _____

- e. _____

- f. _____

Review the section on first aid kits and complete the following activity.

Activity 9.



a. Check your family car and home. Does your family have an up-to-date first aid kit?

b. If no, discuss this with your parents. Make a first aid kit

for travel and another to keep at home. (describe what you did)

This is the end of Health Unit II, Project 6, but there are many other exciting projects you can do in this area. All 4-H'ers—complete the summary for Health Unit II, Project 6.

Advanced level 4-H'ers proceed at your own rate through Health Unit III, and complete the summary for health Unit III, Project 6.

Summary, Health Unit II, Project 6



1. What was your main objective? _____

2. Please describe your progress toward your objective. _____

3. List four new things you learned to do during this project.

- a. _____
- b. _____
- c. _____
- d. _____

4. How many people at home, school or work did you tell about this project or teach some part of it?

none _____ 3 or less _____ 4-8 _____
9-12 _____ 13 or more _____

5. Which activities did you like best? _____

6. Please describe any special projects you did in health as an individual, club or community effort. _____

HEALTH UNIT III, PROJECT 6 (ADVANCED LEVEL 4-H MEMBERS)

Survival Skills Procedures

Learning To Take Pulses

Pulse is the rhythmic throbbing caused by the regular contraction and alternate expansion of an artery; the periodic thrust felt over arteries in time with the heartbeat.

AVERAGE PULSE RATES

infants	100-130/minute
teens	
12-14 years	85-90/minute
14-18 years	70-75/minute
adults	60-80 minute

Athletes are known to have slower heart rates (pulse), approximately 60 or less. This is due to gradual conditioning of the heart through exercise.

Wherever there is an artery relatively close to the surface of the skin, you should be able to palpate (feel) a pulse. Some people's pulses are easier to palpate than others and sometimes, due to a previous injury, you may be unable to feel a pulse in a certain area.

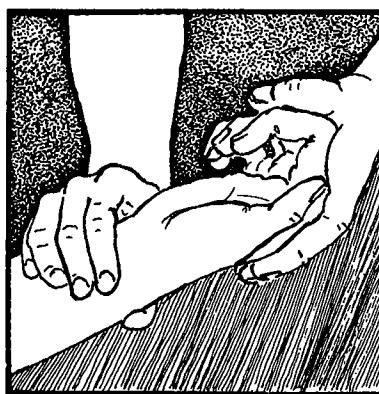
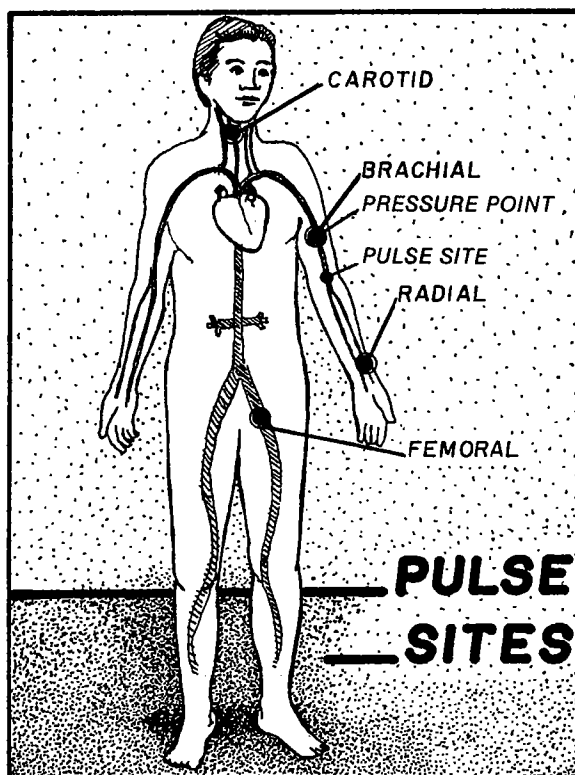
The major areas to feel a pulse are as follow:

- A. CAROTID
- B. BRACHIAL
- C. RADIAL
- D. FEMORAL

The most convenient and widely used location to feel a pulse is the radial artery over the wrist.

The radial artery is on the thumb side of your wrist.

To locate the radial artery, gently feel the wrist just above the base of the thumb. Use only the pads of the index and middle fingers. (Do not use your thumb or you may feel your own pulse!)



If you are unable to feel the pulse right away you may be:

- 1. Pressing too hard.
- 2. NOT pressing hard enough.

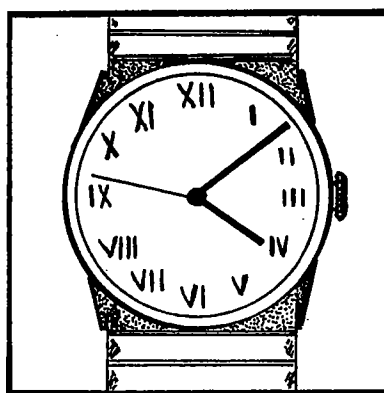
Gently move your fingers around and change the pressure to see if you can feel a pulse. If not, change to the other wrist. It may be easier to feel on the other wrist.

Once you feel the pulse, you need to count the beats. The most accurate way to count a pulse is to count for ten seconds and multiply by six. The longer you count, the larger the room for error.

When you begin counting say . . . 0 - 1 - 2 - 3 - 4 - 5 . . . and so on.

Remember:

- If you have a fever, your pulse rate will increase. The heart pumps faster to cool down the temperature of the body.
- Exercise also increases your pulse rate.

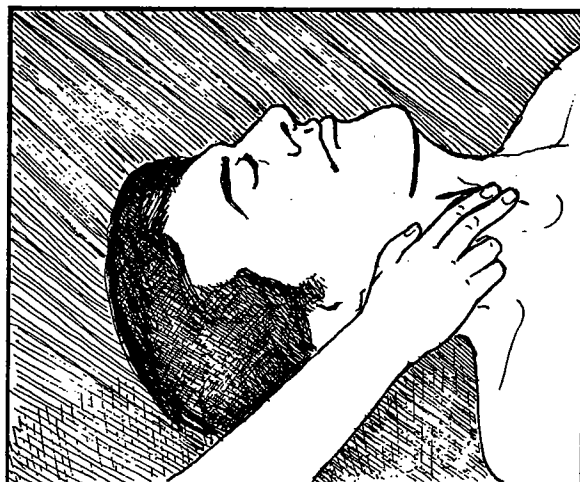


Another easy and accessible location to take pulse is in the neck. There is a carotid artery located on each side of your windpipe.

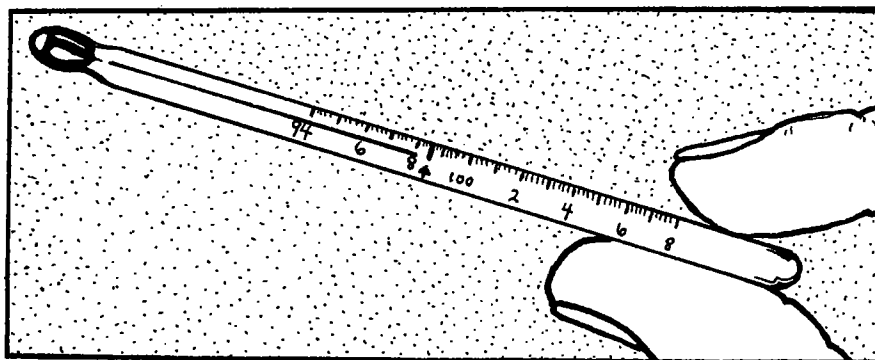
To locate the carotid artery, find your "Adam's apple" with the pads of your index and middle fingers, then gently move them to either side of your windpipe. Press gently and you should feel the throbbing of the carotid artery.

Count the pulse in the same manner explained for the radial artery.

Do not press too hard or you will cut off part of the major blood supply to your brain; this could cause you to pass out!



Learning To Take Temperature



Temperature is the degree of heat of a living body.

Knowledge of how to read a thermometer will come in handy. It's wise to always take a thermometer with you if you are going camping or

vacationing. For infants under six you will need a rectal thermometer and vaseline or petroleum jelly.

Before beginning you need to shake the mercury in the thermometer to below 95° F or 35° C.

METHODS OF TAKING TEMPERATURES

METHOD	PROCEDURE	WHEN TO USE	NORMAL READING	CONTRA-INDICATIONS	SPECIAL INSTRUCTIONS
ORAL	Insert under tongue; leave 3 minutes.	conscious person.	98.6°F 37.0°C Fever present when temperature is over 99.4°.	Do not use if person is confused, agitated, unconscious, or if mouth breathing or if person has mouth sores.	Ask person to breathe through the nose.
AXILLARY	Place under arm; leave 5-8 minutes.	If oral or rectal cannot be used. Examples -unconscious or rectal injuries.	97.6°F 36.5°C Fever present when temperature is over 98.4.		
RECTAL	Generously grease with petroleum jelly. Gently insert in rectum 1½ inches and leave 3-5 minutes.	Infants, small children, adults that are confused, agitated, uncouscious or have mouth injuries.	99.6°F 37.5°C Fever present when temperature is over 100.4.	Do not use on anyone with recent rectal surgery.	If you reach any resistance, DO NOT force the thermometer (you may puncture the large intestine). Do not leave thermometer unattended. Have infant or small child lie face down over your lap.

Learning To Take Blood Pressure

Blood pressure is the force the blood exerts against the artery walls after each pumping action of the heart.

You have two blood pressure numbers. The TOP number, referred to as the systolic pressure, measures the force when the heart is pumping blood out to the vessels and the BOTTOM number, referred to as the diastolic

pressure, measures the heart at rest. That is why you hear your blood pressure referred to as 120/80, for example.

To measure blood pressure you need a SPHYGMOMANOMETER, pronounced, "sfig' -mo me nom' i ter."

This blood pressure measuring device consists of a cuff that wraps around your arm and

is attached to a gauge that measures your blood pressure.

The size of the cuff is very important:

- Cuffs that are too small may give falsely **HIGH** readings.
- Cuffs that are too large may give falsely **LOW** readings.

You should be completely familiar with the equipment and the procedure before trying to take your own blood pressure!

First, familiarize yourself with the home monitoring blood pressure kit and all its parts.

When measuring your blood pressure you should be as comfortable as possible. Sit with your arm resting on a table so your arm is approximately at heart level.



NOTE: If you are outdoors have person either lie down on a blanket or rest his arm on his knees.

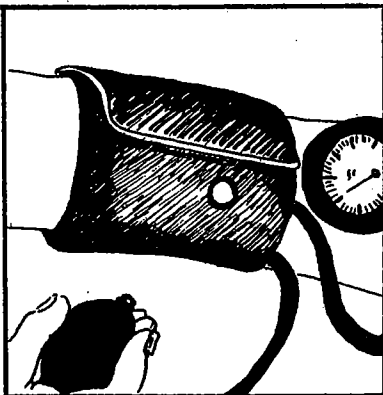
Before you start make sure the power switch is in the **OFF** position.

Pull the end of the cuff through the "D" rings.

If you are right handed, slip the cuff over your left arm and extend your left palm up.

Rest your arm on table (palm up).

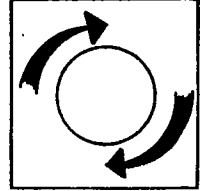
Pull the cuff up your upper arm until the blue



dot (microphone) is over the brachial artery (inner side of elbow). Fasten with the velcro closure.

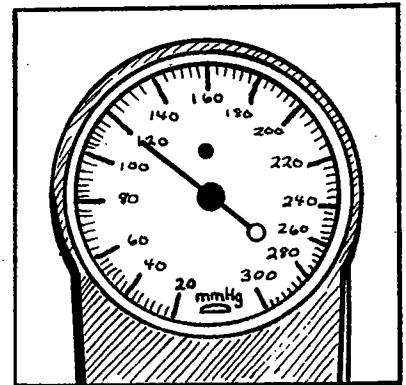
Make sure there is a snug fit because you will not get an accurate reading with a loosely fitting cuff.

Close the air flow valve on the bulb in a clockwise direction.



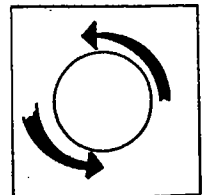
Inflate the cuff quickly by repeatedly squeezing the bulb with your right hand.

If you know approximately what your systolic (TOP) blood pressure usually is, pump the needle about 30 mm past that point on the gauge.



Now, keeping your left arm still, turn the power switch to "ON." (There will be a "BEEP" when you turn on the power).

Slowly open the air flow valve by turning it counter-clockwise so that the needle drops 2-4 mm with each beat of your heart.



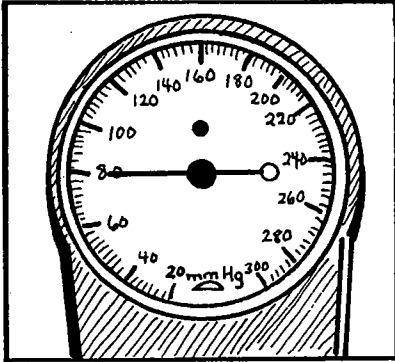
NOTE: Do not become discouraged if you aren't able to do this right away. This takes a lot of practice. The key is not to open the air valve too fast and let all the pressure out at once.

Remember, the pressure has cut off all blood flow to your arm so do not leave the cuff inflated any longer than absolutely necessary or

it will act as a tourniquet.

Also, keep your left arm still, because any movement will cause additional beeping sounds.

The first "beep" and "flash" will indicate your systolic (TOP) blood pressure.



Remember the number where the first beep and flash occurred.

The pressure should continue dropping 2-4 mm per second. The beeping and flashing will also continue. Each beep indicates a heartbeat. Keep watching the gauge. The exact point where the beep and flash stop is your diastolic

blood pressure.

Open the air flow valve all the way to the left (counter-clockwise) to release remaining pressure.

Immediately record your blood pressure.

Review—The first beep (after the power beep) is your systolic blood pressure and the last beep is your diastolic blood pressure.

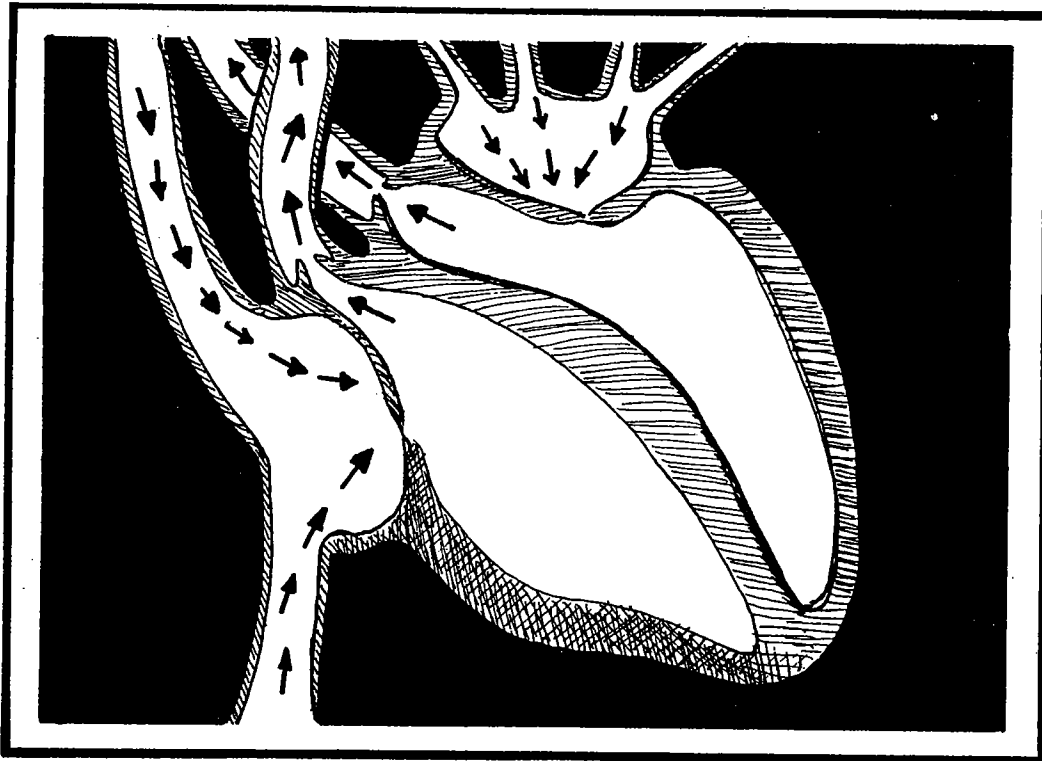
NOTE: Repeated attempts to take your blood pressure will alter the reading so be familiar with the process before starting.

In most cases, the first reading is the most accurate.

Normal Blood Pressure Values for Teens

	Males	Females
Systolic	94-135	94-132
Diastolic	58-84	58-84

If your blood pressure reads high three consecutive times, see a physician to determine whether you have hypertension and need treatment.



Emergency Procedures

Assessing the Emergency

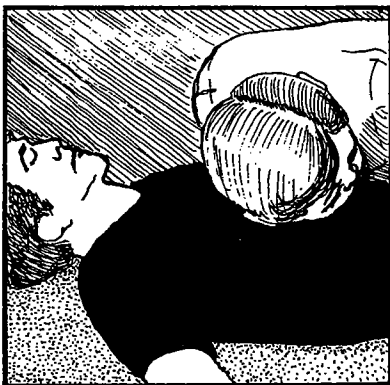
First Aid is First Help! Get help if you don't know what to do!

Upon arrival at the scene of an emergency, try to obtain from the victim or an observer a concise account of what has happened.

NOTE: IF THE INJURY SEEMS AT ALL SERIOUS, SEND FOR MEDICAL AID IMMEDIATELY! DO NOT move a person before he is checked by medical personnel. You could cause further damage.

Try to assess the following conditions of the person:

1. Check the pulse (listen over the heart or check the carotid artery in the neck).



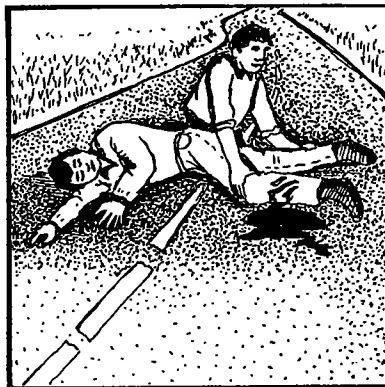
IF NO PULSE—ADMINISTER CPR (CARDIOPULMONARY RESUSCITATION)

2. Check for breathing. See if the person's chest and upper abdomen are moving up and down or feel over his nose and mouth for air movement.



IF NO BREATHING — ADMINISTER ARTIFICIAL RESPIRATION

3. Check for bleeding. Quickly examine the body for any bleeding and treat appropriately.



4. Check for burns or stains around the victim's mouth or a source of poisoning nearby such as pills, medicine bottles, household chemicals, or pesticides.



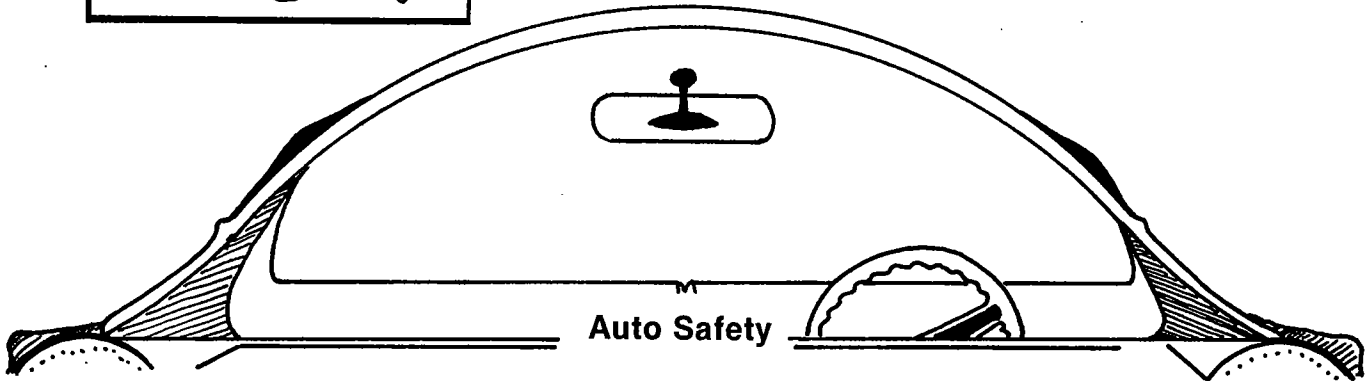
5. Check for broken bones or dislocations. **DO NOT** try to reset a bone or dislocation and **DO NOT** clean a wound. Cover wound with a clean cloth while waiting for additional help.



NOTE: If in doubt, **TAKE NO ACTION.** Send for additional help and remain with victim. You can offer further assistance by

1. Keeping the victim warm.
2. Reassuring the victim that medical help is coming.

Please do not refrain from administering first aid out of a fear of "becoming involved." To date, 41 states (Florida included) have enacted the "Good Samaritan Law," which absolves the first aider of responsibility for malpractice or neglect in an emergency situation.



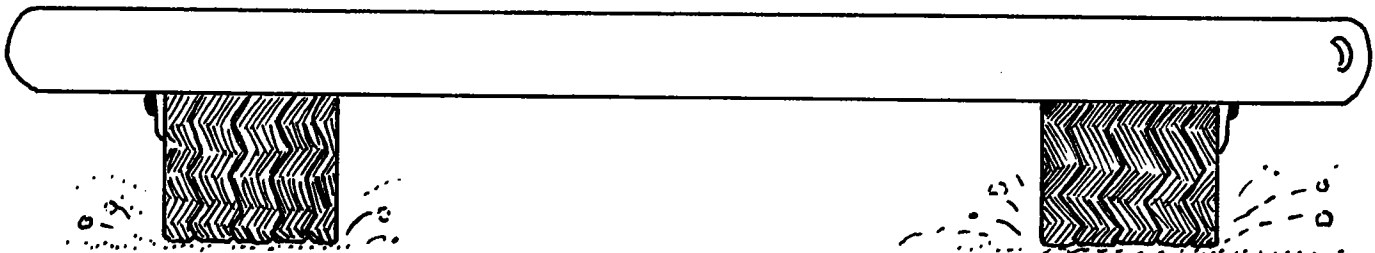
Automobile accidents still account for the largest number of our nation's accidental deaths, even with the slower speed limit being enforced. Also, multiple and complex injuries may be a result.

Prevention is the best form of treatment. Develop habits listed below:

- Follow all traffic rules at all times, especially the speed limit.
- Wear seat belts (shoulder harness, if available) at all times.
- **DO NOT** drive or ride with anyone who has been drinking or taking drugs.
- Place all infants or young children in a car seat.

If you witness or are involved in an accident, there are certain steps you must follow:

- Send someone to call for help.
- Turn the car's engine off if it is still running.
- Provide first aid in the car to victims.
- Move the victim only if there is a fire, threat of a fire, or danger of a second injury.
- Check the victim for breathing and pulses. Give CPR if indicated.
- Control any bleeding.
- If there is head or neck injury, wait for medical personnel to move victim.



Bandaging

There are many techniques of bandaging. The method chosen should vary according to the location or extent of the injury. Sterile and packaged bandages are available or you can improvise from household items, such as sheets, towels, ties, shirts, slips, or any woven fabric. The purpose of a bandage is to control bleeding with pressure; cover an abrasion or wound; and, to absorb blood and wound secretions.

The most common methods are:

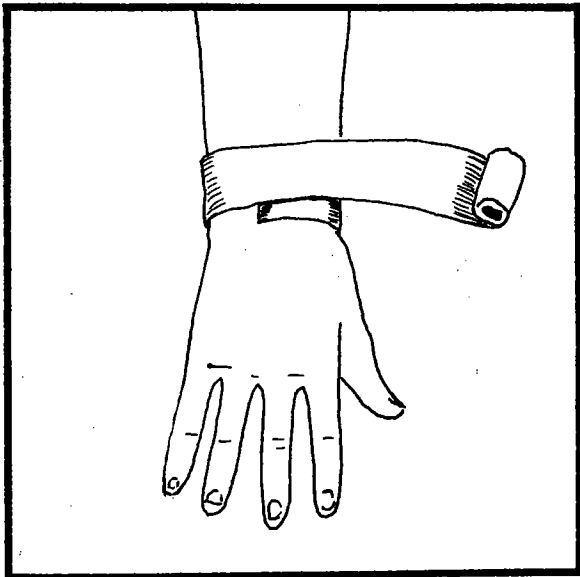
- A. Circular bandages
- B. Spiral bandages
- C. Figure-of-eight (for joint areas)
- D. Fingertip bandages.

A. Circular

This type of bandaging is appropriate for the wrist, above the ankle, neck or any area without joints. You can use an elastic bandage or a gauze roller bandage.

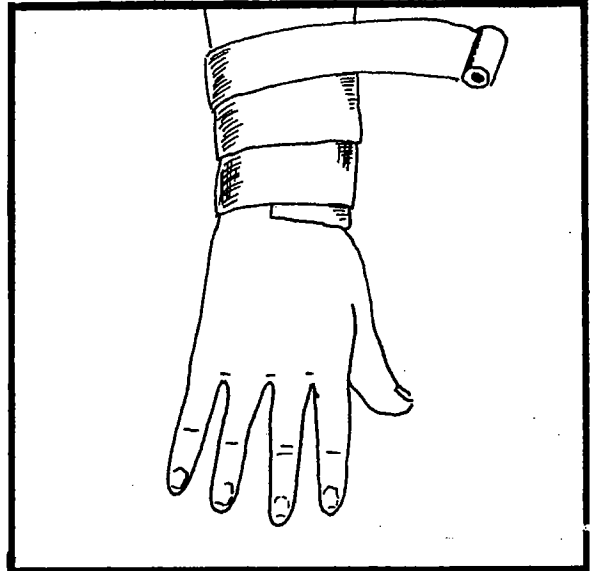
Technique

1. With your left thumb, hold the bandage in place on the affected part.



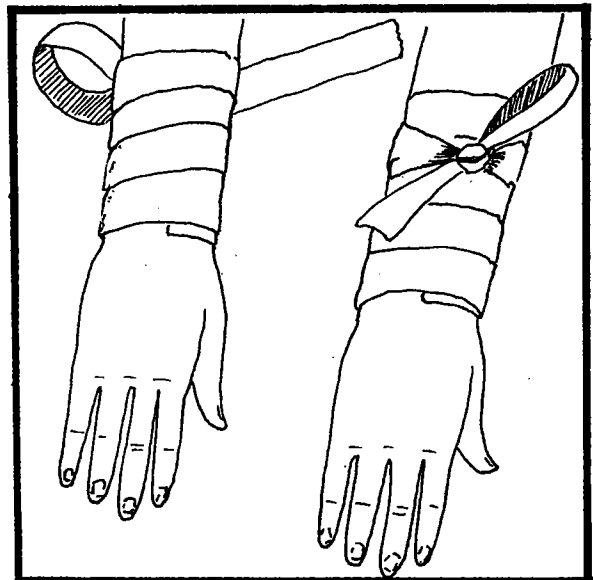
2. With your right hand, roll the bandage twice over the affected area.

3. Overlap each remaining turn by three-quarters of its width.



4. Secure the end by any of the following:

- Cut the end and secure with adhesive tape.
- Cut the end and secure with a safety pin.



- Use a loop knot. Allow about eight inches of bandage, form a loop, pull the plain end through the loop, and knot.

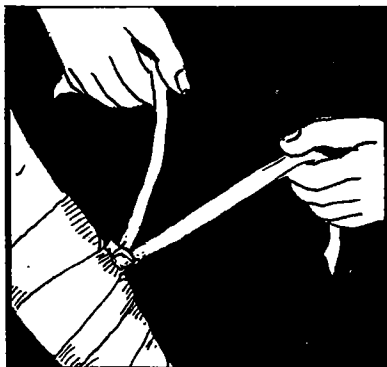
- Cut the width of the bandage in half for about eight inches (20 centimeters).



- Form a knot with the two strips.



- Tie the ends around the bandage to secure with a knot.

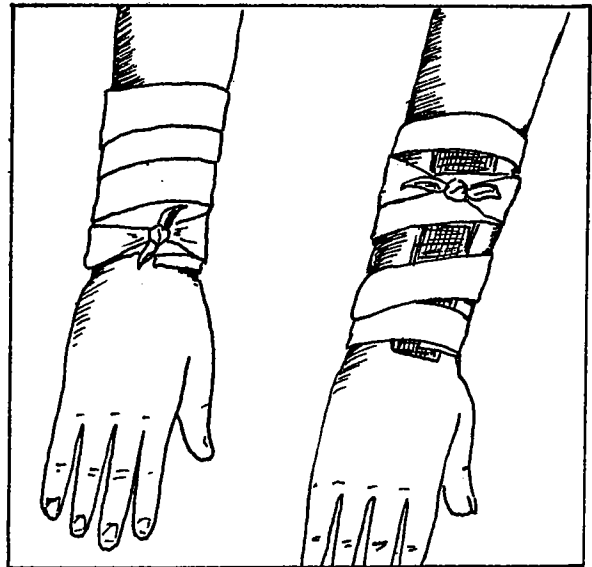


B. Spiral

This type of bandaging is most suited for the arm, thigh or leg.

Technique

1. Secure the bandage by making two circular turns around the affected part.



2. Continue to spiral the bandage so it does not overlap (open spiral). You may make it a closed spiral by having each spiral overlap.
3. Complete the bandage by securing.

C. Figure-of-eight

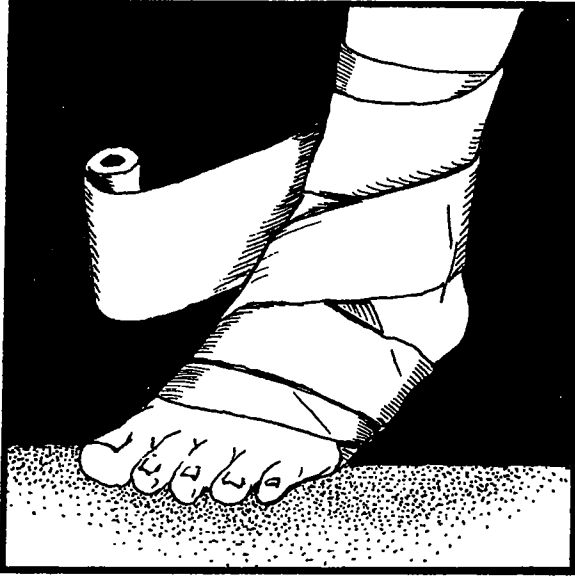
This bandage is most suited for the ankle, wrist or elbow.

Technique

1. Secure the bandage by making two circular turns around the affected part.
2. Roll the bandage diagonally across the foot to start the figure-of-eight pattern.



- Continue under the foot and then back around the ankle.
- Overlap each previous figure-of-eight by three-quarters of its width.



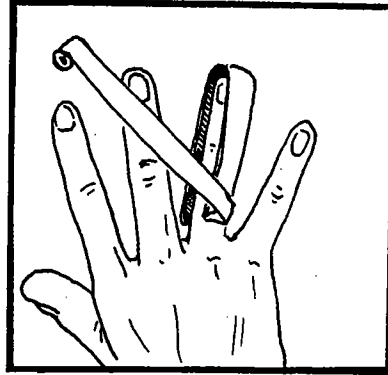
- Secure the end.

D. Fingertip Bandage

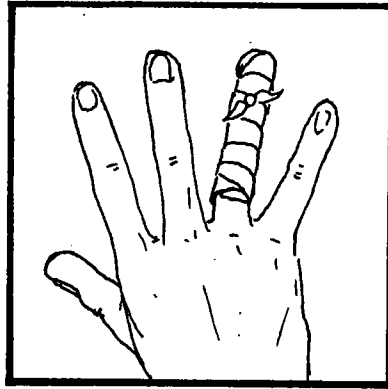
This bandage is most appropriate for fingers, toes, scalp, or stumps of limbs.

Technique

- Make a series of back and forth turns (recurrent) of the finger.



- Secure the recurrent turns with circular or spiral turns.

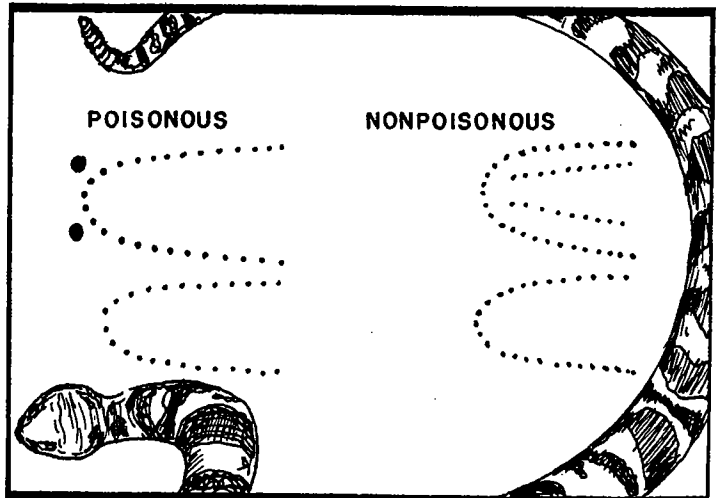


- Secure the end by tying.

Snake Bites

Any snakebite victim should be transported to the nearest hospital or medical facility. All snakebites, poisonous or non-poisonous, should have medical treatment.

If you're not sure the snake was poisonous, take the dead snake with you to the hospital. Poisonous snakes usually leave fang marks.



SYMPTOMS

- Slight burning to acute pain
- Mild to severe swelling
- Nausea and/or vomiting
- Weakness
- Slurred speech
- Sweating
- Paralysis
- Convulsions
- Shock
- Possible coma
- Difficulty breathing
- Blurred vision

TREATMENT

- Calm and reassure victim
- Transport to hospital fast
- Have victim lie down
- Immobilize bitten extremity and keep it lower than heart level
- DO NOT cut or apply suction
- DO NOT apply ice
- Treat for shock: "*If the face is pale, raise the tail.*"
(see section in this Project on "Shock").
- DO NOT give any alcohol
- DO NOT apply a tourniquet

Animal and Human Bites

Human bites can be dangerous because the mouth is heavily contaminated with bacteria. Wash the wound with soap and water, cover it with an antibiotic ointment such as Neosporin, Bacimycin or Furacin and bandage with a sterile dressing. If the skin is penetrated, seek immediate medical aid.

Bites from a wild animal or pet can be dangerous if not treated properly. Dog and cat bites are common and cat bites can be more serious due to the wider variety of bacteria found in a cat's mouth. Tetanus is an added risk and any bite has a high risk of infection.

There is no cure for rabies, so if an animal is rabid, vaccine therapy must be given immediately to prevent the disease.

TREATMENT

- Wash the wound thoroughly with soap and water.
- Rinse with hydrogen peroxide, antiseptic soap, or clear running water.
- Call the Health Department for instructions.
- Try to contain the animal so it can be observed for signs of rabies.
- Seek medical attention.

Summary, Health Unit III, Project 6



1. What was your main objective? _____

2. Please describe your progress toward your objective. _____

3. List four new things you learned to do during this project.

- a. _____
- b. _____
- c. _____
- d. _____

4. How many people at home, school or work did you tell about this project or teach some part of it?

none _____
9-12 _____

3 or less _____
13 or more _____

4-8 _____

5. Which activities did you like best? _____

6. Please describe any special projects you did in health as an individual, club, or community effort. _____

Activities

Choose at least *four* of the following activities to complete each year:

1. Become a certified CPR instructor through the American Heart Association or the American Red Cross.
2. Teach Poison Prevention to a group of young children at a nursery school. Contact your local poison prevention center, hospital emergency room, or local pharmacy for support and assistance in setting up a program. Try to locate a film or filmstrip geared to your age group and use several posters and visuals. A puppet show would be very effective, too.
3. Become a certified Life Saver through the American Red Cross.
4. Spend a day with an Emergency Medical Technician (EMT) or in a hospital emergency room. Observe how often basic first aid skills are used. Ask the personnel how often they update themselves on their skills. Make a summary of all the cases you observed, keeping all names anonymous: list type of injury, medical treatment given and your evaluation of how the incident may have been avoided, if it was an accident.
5. Use 4-H 328 to teach "First Aid: First Help" to 8-11 year olds.
6. Teach the "Heimlich Maneuver" to food workers in restaurants or in day care centers.
7. Prepare and stock a first aid kit for your family's car, boat, and camping trailer.
8. Invite a veterinarian to speak to your 4-H club about immunizations for pets and how to act around strange animals.
9. Contact the Safety Council in your community and volunteer to help set up a community awareness program on safety. For example, set up a booth in a mall, teach bicycle safety to elementary children, or teach household safety to senior citizens.
10. Assist your 4-H leader in giving a "Survival Skills" field day in your community. For example, you could assist with publicity, invite guest speakers, coordinate the sessions, and present the awards.
11. Become an advanced First Aider with the American Red Cross.
12. Invite a herpetologist to speak to your 4-H club on snake and spider identification.

Heat Exhaustion

Heat exhaustion is a response to heat characterized by fatigue, weakness, and muscle cramps. The body cannot compensate for loss of fluids through sweating and inadequate intake of fluids.

SYMPTOMS

- Body temperature normal or subnormal.
- Skin moist.
- Profuse sweating.
- Cramps or muscles spasms.
- Fainting or weakness.

TREATMENT

- Place in cool, shaded, ventilated room; apply cool cloths after removing clothing.
- If conscious, give sips of salt water (1 teaspoon per glass) every few minutes for an hour.

Water Safety

Drowning accidents need never happen; they could be prevented in nearly all cases. Many drownings occur because there is no one nearby to rescue the victim and administer first aid.

By following these safety tips you can make swimming a fun, healthy, and safe pastime:

SAFETY TIPS

- Learn to swim and float. Learn how to **DROWNPROOF** yourself.
- NEVER** swim alone; use the "buddy system".
- TAKE NO RISK.**
- Swim only in protected areas and obey safety rules enforced by the lifeguard.
- Know and observe your swimming limitations.
- DO NOT** swim when you are tired, overheated, or chilled.
- Keep hands off others in deep water.
- Do not swim in the dark.
- NEVER** dive in unknown waters.
- Never jokingly call for help.
- If fatigued, float or tread water.
- Stay out of the water in a thunderstorm.
- Never use an inner tube or other floating devices as a substitute for swimming skills.
- NEVER** attempt to rescue someone unless you are properly trained.

If you are properly trained in life saving, observe the following:

- Know your capacity for rescuing another swimmer.
- Swim only when other means, (boat, surfboard), are not available.
- Remove shoes and outer clothing first.
- Carry a stick, shirt, or rope for the distressed person to grasp.
- If the swimmer is not trained in lifesaving, the safest procedure is to approach the victim from the rear, grasp his head, and tow him to safety.

Sunburn

The best treatment for sunburn is **PREVENTION**:

- Limit exposure to small, increasing doses.
- Use a sunscreen (with PABA, para-aminobenzoic acid), especially if fair skinned; reapply sunscreen every few hours and after swimming.
- Wear wide-brimmed hat or visor.

Ultraviolet radiation (in sunlight) has an aging effect on the skin; dry, wrinkled, and leathery skin may result after years of overexposure, as well as skin cancer.

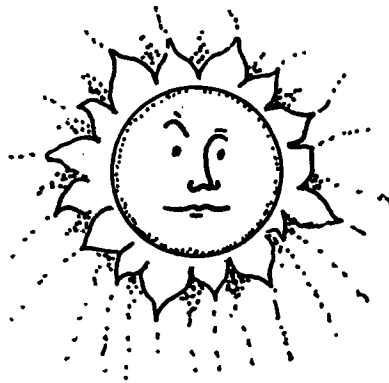
Sunburn is caused by overexposure to sunlight.

SYMPTOMS

- Painful, reddened skin.
- Formation of blisters.
- In severe cases; fever, weakness, and gastrointestinal upset may occur.

TREATMENT

- Apply cold compresses to area.
- Give Aspirin for relief of discomfort or fever.
- Apply commercially prepared lotions for soothing effect.
- If severe, consult a doctor.



Sunstroke

Sunstroke occurs when there is a failure of the heart-regulating mechanism that prevents the body from eliminating excess heat through sweating.

SYMPTOMS

- Body temperature extremely high (106° F or higher).
- Skin flushed and dry.
- NO sweating.
- Rapid pulse and breathing, low blood pressure.
- May be unconscious.

TREATMENT

- Place in tub of cool water (**DO NOT** add ice); sponge entire body until temperature drops.
- Or place in cool, well-ventilated room and wrap in wet, cool sheets until temperature drops.

Sprains and Strains

Sprains

A sprain is an injury to the soft tissue surrounding joints, a joint ligament or a muscle tendon in the region of the joint. It's usually caused by forcing a limb beyond the normal range of the joint. It involves injuries to blood vessels, ligaments, muscles, and tendons. The ankles, fingers, wrists, and knees are most often involved.

PREVENTION: never force a joint beyond its normal range of motion.

SYMPTOMS

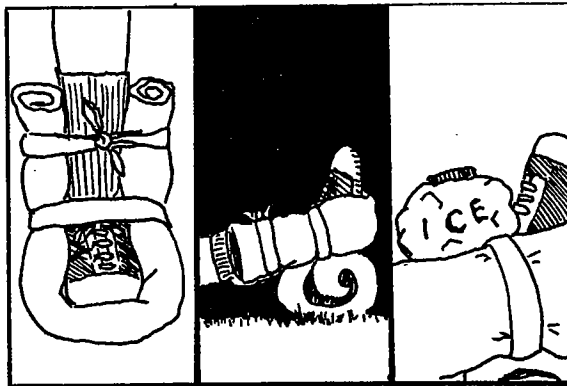
- Pain.
- Rapid swelling.
- Tenderness.
- Discoloration of soft tissue.

TREATMENT

- If a knee or ankle is involved don't allow victim to walk.
- Loosen or remove victim's shoe.
- Immobilize the injured area with a blanket or pillow splint.
- Elevate affected part: elbow, knee or ankle.
- Apply cold wet packs or an ice bag to affected part.

NOTES

- DO NOT SOAK IN HOT WATER.
- DO NOT SOAK IN ICE WATER.
- DO NOT PACK THE JOINT IN ICE.



Strains

Strains are muscle injuries due to overexertion. Muscle fibers are stretched and sometimes torn.

PREVENTION: always do a five-minute warm-up and a five-minute cool-down to prevent excess stress on muscles.

SYMPTOMS

- Muscle pain.

TREATMENT

- Rest the injured part.
- Apply warm, wet compresses.
- Seek medical care for severe back strains.



Shock

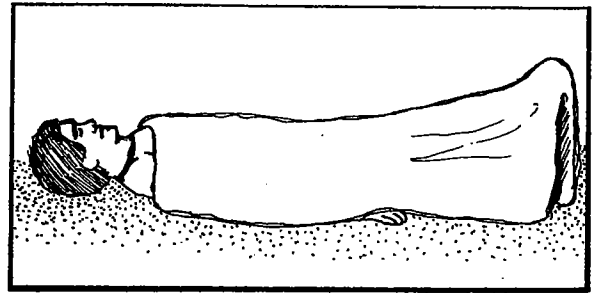
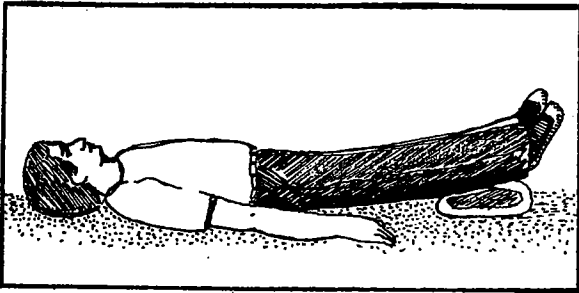


Shock may be caused by serious injuries of all types: hemorrhage, severe vomiting or diarrhea, infection, poisoning, burns, stroke, heart attack, lack of oxygen, or injury to the respiratory system.

In shock the blood volume is reduced, as fluid shifts out of the blood into the tissues. This low blood volume in the vessels puts a strain on the heart to adequately pump blood and provide oxygen to all tissues. If shock is not treated immediately the victim will lose consciousness and the heart will begin to fail.

SYMPTOMS

- Pale (bluish) skin.
- Skin cold to touch.
- Vacant look in eyes, dilated pupils.
- Shallow, rapid, irregular breathing.
- Fast pulse (over 100) and weak; may not be felt at wrist (try carotid pulse at neck).
- Weakness.
- Restlessness.
- Pronounced thirst.
- Nausea and vomiting.
- Unresponsiveness.



TREATMENT

- Have victim lie down; elevate the lower body and legs eight to twelve inches. ("If the face is pale, raise the tail.")
- Keep the victim warm; cover with a blanket or overcoat.
- Transport immediately to a medical facility or call an ambulance.

NOTES

- DO NOT** give the victim anything to drink, especially alcoholic beverages.
- DO NOT** move the victim if you suspect a neck injury.
- DO NOT** elevate legs if it causes pain.
- Elevate neck and shoulders if head injured or difficulty breathing.
- DO NOT OVERHEAT** the victim, just keep from chilling.

2) For any other poisons (aspirin or other medicines, alcohol, poisonous plants, fingernail remover, cologne, insecticides), take action immediately.

TREATMENT

- DO NOT wait for symptoms to develop.
- Give the victim 1-2 glasses of milk or water to dilute the poison.
- Give 1 tablespoon of syrup of ipecac; if no vomiting occurs in fifteen minutes give a second tablespoon, but DO NOT repeat a third time.
- If no vomiting occurs after 30 minutes, induce vomiting by placing your finger or a spoon on the back of the victim's tongue.
- Make sure the victim's head is between his knees so vomit does not enter the lungs.
- Take victim to a medical facility (take poison container).

Removing a Fish Hook

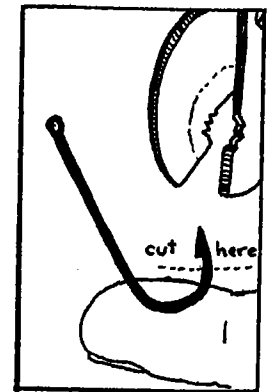
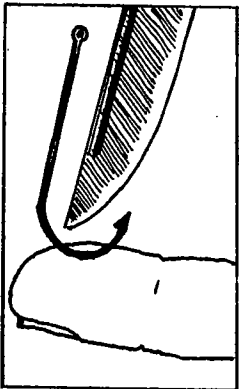
Removing a fish hook is a common problem that happens on camping trips.

TREATMENT

If a fish hook is deeply embedded, removal by a first-aider may be impossible. If medical help is not available there are two methods for removal:

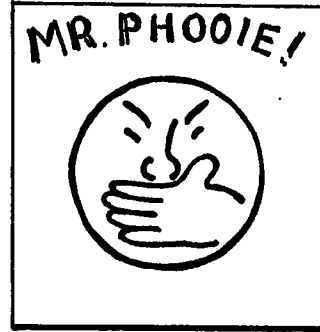
- 1) If hook cannot be easily removed, make a small opening in the skin by using a sterilized needle, knife or razor blade. Cut into the flesh so the hook can be removed. Clean the wound well and apply antibiotic ointment and a clean dressing.
- 2) Push the hook further into the flesh. Cut the tip of the protruding fish hook off with heavy scissors or wire snippers. Withdraw fish hook. Apply antibiotic ointment and a clean dressing.

Regardless of which method is used, check with your doctor and see if you need a tetanus shot.



Contact Poisons

Poison ivy, poison oak, and poison sumac are common sources of contact poisoning. All campers should familiarize themselves with these three plants so they can recognize them well enough to avoid them. Also, wear adequate protective clothing in infested areas.



SYMPTOMS

- Local itching, burning, and redness of skin will occur.
- Small blisters may form.
- In severe cases, large blisters and swelling may occur.

TREATMENT

- Carefully remove all contaminated clothing for washing.
- Wash all contaminated skin with soap and water.
- Apply cool, moist compresses to relieve itching.
- Apply soothing lotion to the skin, such as calamine lotion.
- **DO NOT SCRATCH.** This may cause a secondary infection.
- If blisters ooze, treat them with sterile gauze pads saturated in baking soda and water (one tablespoon baking soda to one pint water).
- Seek medical advice for severe itching, fever, or if a large area of the body is involved.

Ingested Poisons

The best form of treatment for poisoning is prevention. If small children are around, keep all medication, cleansers, and poisons out of reach and have safety latches installed on all cabinets that contain such items.

Teach all children about anti-poison stickers, such as Mr. Phooie.

These insignias are replacing the skull and cross-bones to indicate poisons. Place one on all medicine and poison containers. They are

available at any poison control center, local emergency room, or pharmacy.

Accidental poisoning is common, especially in households with small children. All households should be equipped to handle a poisoning emergency: syrup of ipecac should be readily available and the phone number of your **POISON CONTROL CENTER** or physician should be by the telephone.



There are two different types of treatment depending on the type of poison swallowed.

1) If the victim swallowed a petroleum product (turpentine, paint thinner, furniture polish, gasoline, liquid shoe polish) or a strong acid (toilet bowl cleaners, rust remover) or alkali (bleaches, lye, drain cleaners), vomiting should never be induced. These strong substances can cause chemical burns of the mouth and esophagus and if the person vomits he will be burned a second time.

TREATMENT

- Take the victim to a medical facility at once (take poison container).
- **DO NOT INDUCE VOMITING.**
- Give victim 2-3 glasses of milk or water to dilute the poison on route to hospital.

SYMPTOMS

- Victim may have heard or felt a bone snap.
- Swelling.
- Discoloration.
- Pain or tenderness to touch.
- Obvious deformity.
- Victim may feel bones grating against each other.

- If you suspect a broken neck or back **DO NOT MOVE** the victim without medical help unless the victim's life is in further danger.
- If the victim must be moved, splint the fracture to prevent further damage and lessen the victim's pain.
- Elevate the limb to reduce swelling.

TREATMENT

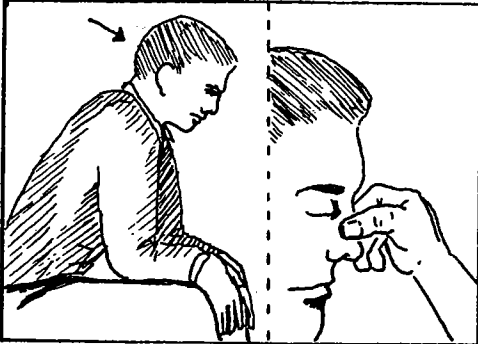
- DO NOT** try to reset dislocations yourself.
- Control bleeding with a sterile or clean cloth.
- DO NOT CLEAN THE WOUND.**

SPLINTING

- Use magazines, boards, or other appropriate objects for a splint and cloth for padding.
- Tie splints with clean strips of cloth, belts, rope, or neckties.

Nosebleeds

Nosebleeds are usually caused by injury, blowing the nose too hard, drying of the mucous membranes, or nose picking.



Nosebleeds may occur in people with hypertension, nasal tumors, or bleeding disorders.

TREATMENT

- Have the person sit up and lean forward to prevent blood from being swallowed or inhaled.
- Gently squeeze the affected side of the nose for 10-15 minutes.
- If the bleeding stops, have the victim rest quietly for a few hours. He should avoid stooping, lifting, or vigorous nose blowing or nose picking.
- See a doctor if bleeding recurs or if nosebleeds are frequent.

Poisonings

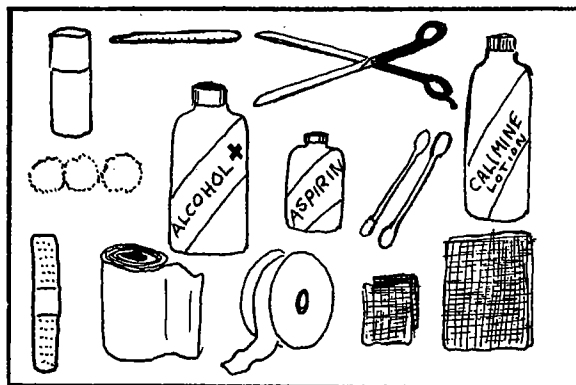
There are two major groups of poisons. Become familiar with treatment for both, as described in the following two sections.

First Aid Kits

Every home should have a first aid kit and it should be kept out of reach of children. A first aid kit for camping or hiking should differ in its contents. The variety and quantity of supplies will depend on the number and ages of people using it; how long you will be away; the distance and terrain you are to travel; and the overall health of the travelers.

For general purposes a first aid kit should contain the following:

- Absorbent cotton
- Sterile eye pads
- Rubbing alcohol
- Butterfly bandages
- Hydrogen peroxide
- Epsom salts
- Activated charcoal
- Calamine lotion
- Paper cups
- Sterile gauze pads
- Sterile gauze bandages
- Measuring cup
- Adhesive bandages
- Ammonia inhalent
- Syrup of ipecac
- Adhesive tape
- Salt tablets
- Cotton tipped swabs
- Needles
- Oil of cloves
- Petroleum jelly
- Tourniquet and stick
- Scissors
- Children's aspirin
- Tongue blades
- Thermometer

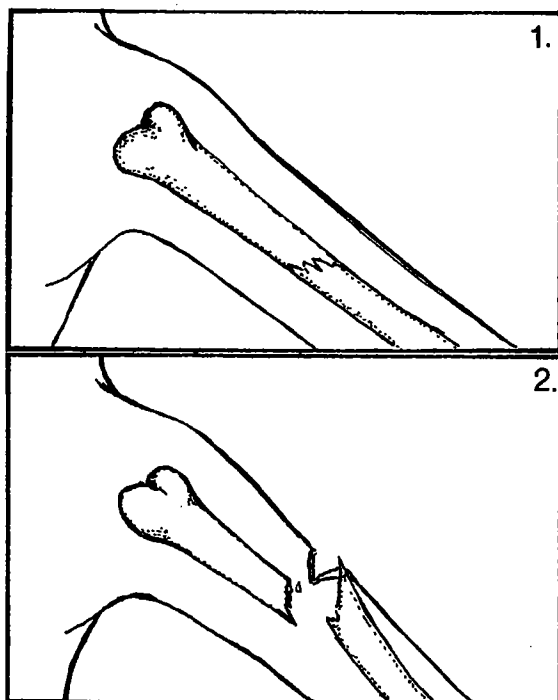


A small first aid kit could include the following:

- Absorbent cotton
- Sterile eye pads
- Rubbing alcohol
- Sterile gauze pads
- Sterile gauze bandages
- Adhesive bandages
- Ammonia inhalent
- Adhesive tape
- Cotton tipped swabs
- Tourniquet and stick
- Scissors
- Tongue blades

If anyone in your group requires medication*, be sure it is well marked and someone else knows how to administer it. (Example: if there is an insulin-dependent diabetic make sure someone knows how to give him his shots.)

Fractures



Fractures are rarely life threatening. The victim needs to be checked for breathing and pulses before an attempt is made to immobilize the injured limb.

There are two types of fractures:

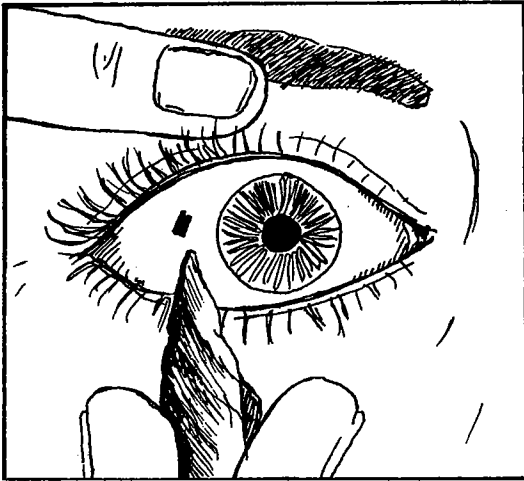
1. Closed or simple — the broken bone does not protrude through the skin.
2. Open or compound — the broken bone does protrude through the skin.

*A MEDIC ALERT bracelet is suggested.

Eye Care (Debris or foreign objects)

The cornea is very sensitive and even a small amount of dirt or trash can cause severe pain and tearing. **DO NOT RUB THE EYE.**

TREATMENT

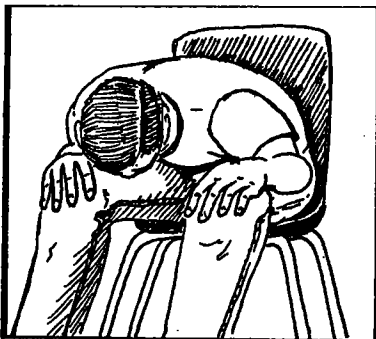


- Look for the object by pulling the lower lid down while lifting the upper lid off the eyeball. Most specks will be visible.
- Gently try to wipe the speck off with a damp clean cloth, handkerchief, or cotton swab. If it does not come off and pain and irritation persist, see a doctor.
- If irritating chemicals are splashed into the eye, irrigate the eye with cool tap water for 15-20 minutes.
- If a large object penetrates the eyeball, **DO NOT TRY TO REMOVE IT; SEE AN EYE DOCTOR AT ONCE!**

Fainting

Fainting is a momentary loss of consciousness that may be caused by many things: fatigue, hunger, emotional upset, sudden shock, or poor ventilation. The person who has fainted looks limp and pale, but is breathing and has a normal pulse; the unconsciousness lasts only a few seconds.

TREATMENT

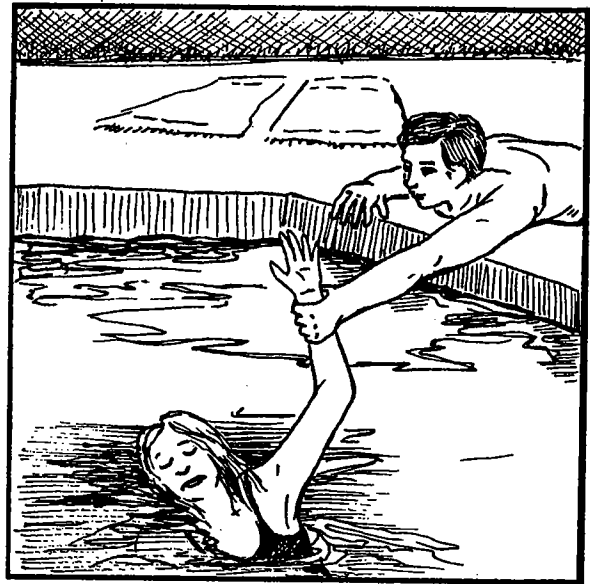


- Place the victim on back or sides with legs higher than head or sitting with head between knees.
- Check airway, breathing, and pulse.
- Apply cold compresses to victim's forehead and have him inhale aromatic spirits of ammonia.
- A person who faints often should see a physician.

NOTE: DO NOT let the victim grab you. He may pull you under due to fear.

If the swimmer is in trouble in a pool, lie down and offer your foot or an arm, inner tube, pool brush, stick, or other appropriate object.

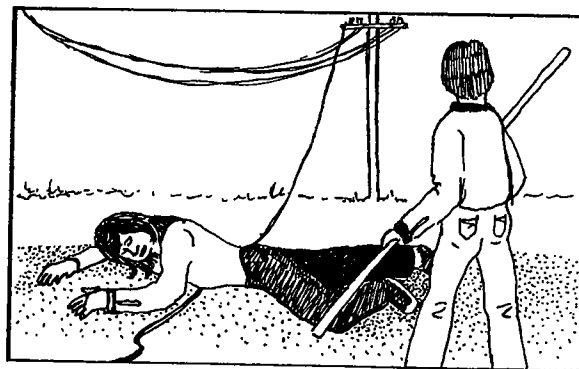
Once the victim is breathing on his own, treat for shock and transport to hospital. (see section in this *Project* on "Shock".)



Electric Shock

The most important action is to remove the victim from the source of electricity without becoming a victim yourself.

If possible, disconnect the current by unplugging a cord or removing a fuse. If that isn't possible and no head, neck or back injury is suspected, roll the victim away from the live wire with any nonconductor such as wood, rubber, leather or cloth.



CAUTION: DO NOT TOUCH THE VICTIM UNTIL HE IS DISCONNECTED OR YOU MAY BECOME ANOTHER VICTIM!

TREATMENT

- If not breathing, begin CPR immediately.
- Call for medical assistance.
- Treat for shock. (See section in this *Project* on "Shock")
- Transport to hospital as soon as possible.

Convulsions

A convulsion is a seizure caused by disorderly discharges of electrical action in the brain cells producing jerky muscular movements.

Children may have a convulsion with high fevers. They may be associated at any age with head injuries, brain disease, (tumor, abscess or hemorrhage) or, most commonly, epilepsy.

SYMPTOMS (may include)

- Loss of consciousness.
- Rolling of eyes.
- Loss of bowel and bladder control.
- Rigidity of muscles, followed by jerking.
- Foaming at the mouth.
- Clenching of teeth.
- Moaning.
- Vomiting.

TREATMENT

- Seek medical assistance promptly (**DO NOT** leave victim alone during convulsion).
- Help victim to floor before he falls.
- Clear area of hard or sharp objects.
- Loosen tight clothing, but do not restrict victim.
- Prevent victim from hurting himself.
- Place a rolled handkerchief between teeth. **NEVER FORCE MOUTH OPEN. NOTE: DO NOT** use a pencil or hard object. The victim may break his teeth.
- If vomiting, roll on side to prevent aspiration of vomit into lungs.
- Give artificial respiration if indicated.
- Seek medical assistance if none has arrived.

Drowning

SEND FOR HELP IMMEDIATELY!

Drowning is the result of water entering the lungs and blocking the normal intake of oxygen.

Try to reach the victim without attempting a swimming rescue, unless you are properly trained. Use a rowboat if available and let the victim grasp the side. If he is unable to hold on to the boat, pull him in and start immediate mouth-to-mouth breathing.

Immediate mouth-to-mouth breathing is essential. Start resuscitation before trying to get water out of lungs. After four minutes irreversible damage occurs to the brain due to oxygen deprivation. Time is of utmost importance.

If necessary, begin mouth-to-mouth

breathing in the water or in a boat as soon as you reach the victim.



If possible, wade to the person and throw him a rope, buoy, board, clothing, pole, or other appropriate object to grab onto.

Choking (The Cafe Coronary)

Sometimes choking is confused for a heart attack. If a person is choking, he will be unable to breathe or speak. If the victim cannot speak, the foreign object is probably lodged in the windpipe (trachea) or voice box (larynx). Choking is usually caused by swallowing food or fluid the wrong way. Immediate action is required by the first aider.



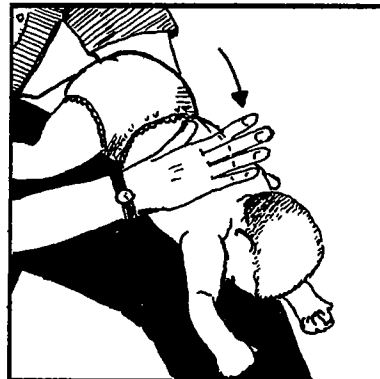
Stand behind the victim and place your arms around his waist, with the thumb side of your fist against his stomach between the naval and rib cage. Grasp your fist with your other hand and make 4 quick upward thrusts.



This is known as the "Heimlich Maneuver." The force of air should aid in the expulsion of the foreign object.

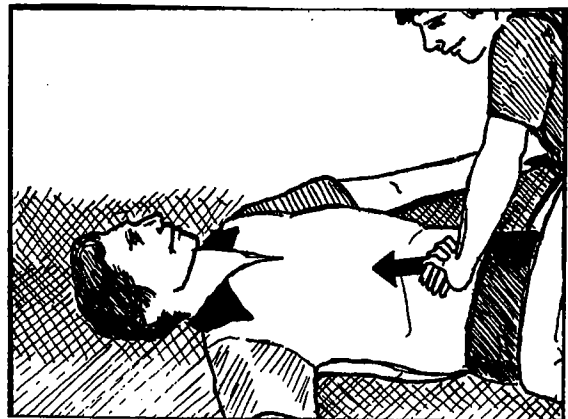
The size of your victim should guide you in judging the force of your thrusts.

If the victim is an infant or small child, you should place him over your forearm and administer 4 rapid forceful blows between the shoulder blades.



Sometimes you can take your index finger and sweep the back of the victim's throat and remove or loosen the foreign object.

If the victim is lying down, roll him on his back and sit over his abdomen. Place the thumb side of your fist against his stomach between the naval and rib cage. Grasp your fist with your other hand and make 4 quick upward thrusts.



RESCUER #1

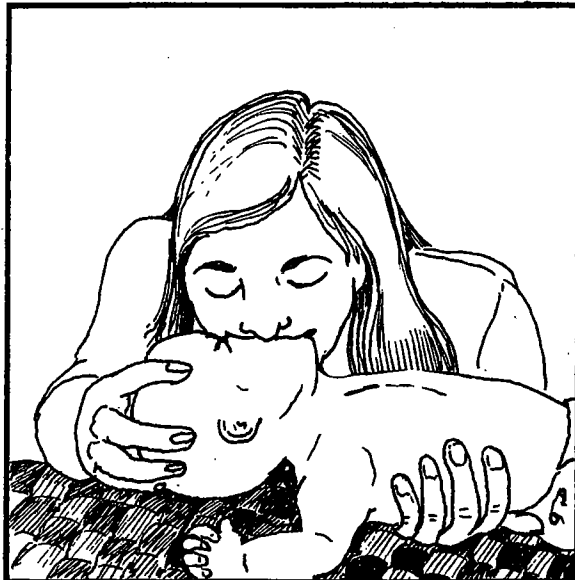
9. Give 1 breath after each five compressions while Rescuer #2 says aloud,
 "One one-thousand
 Two one-thousand
 Three one-thousand
 Four one-thousand
 Five one-thousand."
10. There is no pause between mnemonic (in the counting pace). Rescuer #2 does not pause for ventilation.
11. Use the ratio of 60 compressions a minute with a ventilation after every five counts. If the rescuers want to switch positions, Rescuer #1 calls for a change in the same rhythm as one-thousand. He says, "change after next breath." The ventilator moves immediately after the breath and takes over compressions no later than the count of three. The other takes over ventilation and checks pulse every four full minutes.



Infant CPR

Do the following:

1. Establish unresponsiveness: while turning child on back, shake shoulder and shout, "Are you Okay?"
2. Turn neck to side to clean out any foreign matter.
3. Tilt head back to open airway.
4. Establish breathlessness: put your ear over victim's mouth to feel for breathing. Observe chest for respiratory effort.
5. Give four quick breaths.
6. Establish pulselessness: place fingers between voice box and muscle below the chin to palpate a carotid pulse.
7. If **NO PULSE**, place tips of index and middle fingers over the **MIDDLE** of the sternum. Make short, quick thrusts toward the sternum 80-100 times a minute.
8. Use the ratio of 5 compressions and 1 ventilation. Continue uninterrupted until medical personnel arrive, another first aider arrives to assist, or the victim begins breathing on his own.

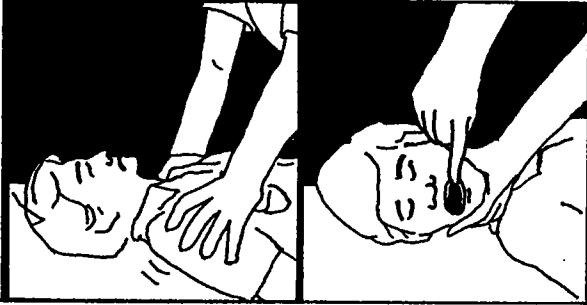


Two Man CPR

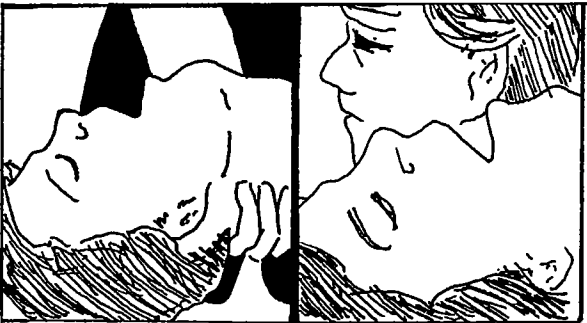
RESCUER #1 (Ventilator)

Do the following:

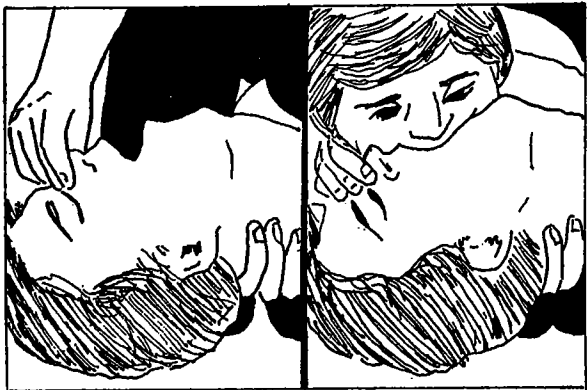
1. Establish unresponsiveness: while turning on back, shake shoulder and shout, "Are you Okay?"
2. Turn neck to side to clean out any foreign matter.



3. Tilt head back to open airway.
4. Establish breathlessness: put your ear over victim's mouth to hear and feel breathing. Observe chest for respiratory effort.



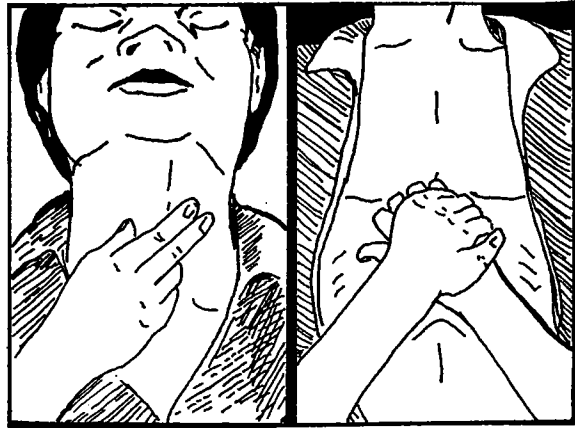
5. If not breathing, then pinch off nostrils with thumb and forefinger, seal your mouth around victim's and breathe into the victim's mouth.



6. Give four quick ventilations removing your mouth after each to observe victim's chest for expiration.

RESCUER #2 (Compressor)

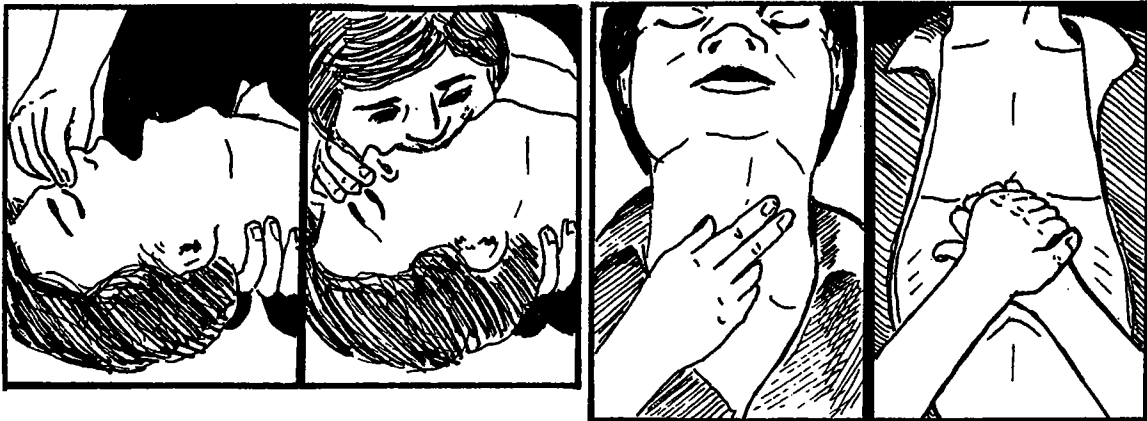
7. Establish pulselessness: place fingers between voice box and muscle below the chin to palpate a carotid pulse.
8. If NO PULSE, place the heel of your hand about two finger widths above the tip of the sternum. Keeping your fingers off the chest, place the heel of your right hand on the back of the heel of your left hand. Apply pressure to compress the chest. Weight is transmitted vertically.



Count aloud to establish rhythm:

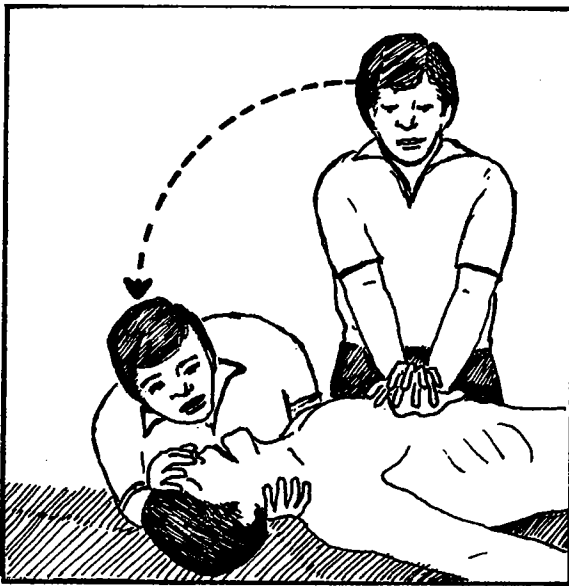
"One and two and three and four and five,
One and two and three and four and ten,
One and two and three and four and fifteen."

5. If not breathing, then pinch off nostrils with thumb and forefinger, seal your mouth around victim's and breathe into the victim's mouth.
6. Give four quick ventilations, removing your mouth after each to observe victim's chest for expiration.
7. Establish pulselessness: place fingers between voice box and muscle below the chin to palpate a carotid pulse.



8. If **NO PULSE**, place the heel of your hand about two finger widths above the tip of the sternum. Keeping your fingers off the chest, place the heel of your right hand on the back of the heel of your left hand. Apply pressure to compress the chest. Weight is transmitted vertically. Count aloud to establish rhythm:

One and two and three and four and ten,
One and two and three and four and fifteen."



9. Ventilate two times.
10. Use the ratio of 15 compressions to 2 ventilations.
11. Continue this rhythm until medical personnel arrive, another first aider arrives to assist, or the victim begins breathing on his own. Check for pulse every four to five minutes.

First, determine if the victim is breathing. Observe the chest or upper abdomen for an up and down motion or test for movement of air through the nose or mouth.



Second, determine if the heart is pumping. Listen over the heart for a heart beat or feel for a pulse in the neck (carotid) or groin (femoral).

If the victim is NOT breathing, but the heart is still pumping, only mouth-to-mouth breathing is necessary.

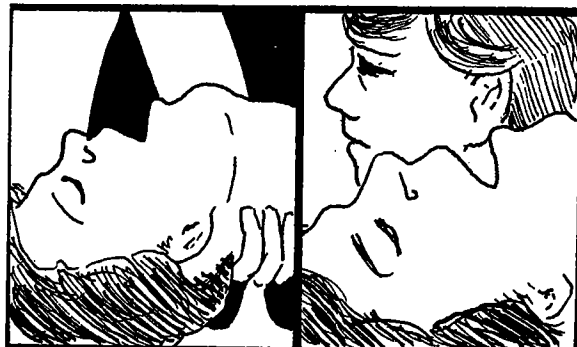
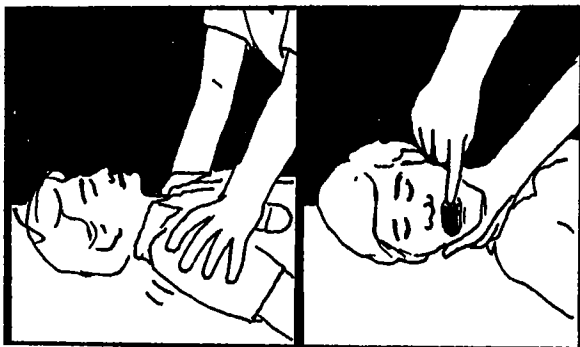
If the heart is NOT PUMPING (no pulse obtained), external cardiac massage is vital and should be initiated immediately. Use the ABC's to help you remember the sequence:

- A — establish airway
- B — establish breathing
- C — establish circulation

One Man CPR

Do the following:

1. Establish unresponsiveness: while turning on back, shake shoulder and shout, "Are you Okay"?
2. Turn neck to side to clean out any foreign matter.
3. Tilt head back to open airway.



4. Establish breathlessness: put your ear over victim's mouth to hear and feel breathing. Observe chest for respiratory effort.

Camping Safety

Forest fires are usually the result of careless campers. Careless campers leave fires not fully extinguished; also they do not follow safety precautions in other ways: they build fires in dry areas too close to trees and they neglect to dig a trench around the area.

There are safety precautions to be followed when camping and lighting a fire. By following tips listed below, you can make your camping trip fun and safe for you and others:

- Choose a site at least 10 feet from brush, trees, and overhanging limbs.
- Clear a ten-foot circle, removing dry leaves, dry grass, pine needles, and twigs.
- Dig a small trench around the fire area to keep flames from spreading.
- A more permanent area can be surrounded by dead logs or rocks.
- Check with appropriate officials about fire regulations before building a fire. (In some areas, open fires are not allowed in dry seasons.)

- Extinguish fires completely. Soak all embers and sticks with water if available or with dirt.
- Restore the fire area to its natural state.



Cardiopulmonary Resuscitation* (CPR)

CPR is mouth-to-mouth artificial respiration and external cardiac massage — either or both.

CPR should be used in the following situations:

1. Electrocutation
2. Drowning
3. Sudden heart attack
4. Shock
5. Foreign objects in air passages
6. Suffocation
7. Asphyxiation
8. Drug overdose
9. Severe auto accident where victim has lost consciousness
10. Cessation of breathing due to ANY cause!

A first-aider must act quickly, without hesitation, because CPR must be initiated within four minutes after the victim is stricken. Brain damage and death may result if breathing is not restored within 6-8 minutes.

NOTE: DO NOT leave the victim. Send for medical assistance and initiate CPR by yourself or with another qualified first-aider.

*According to standards established by the American Heart Association.

TREATMENT OF BURNS

	SKIN	RINSE WITH WATER	APPLY COLD WATER TO BURN	COVER WITH STERILE OR CLEAN DRESSING	SEEK IMMEDIATE MEDICAL ATTENTION
CHEMICAL		X for 15-30 minutes	X		X
HEAT					
FIRST	red		X	X	
SECOND	red, blisters		X	X	
THIRD	white or black			X	X maintain airway, treat for shock

DO NOT:

- APPLY GREASY OINTMENTS
- USE BUTTER ON ANY BURN
- BREAK BLISTERS
- PULL OFF ANY CLOTHING THAT ADHERES TO BURN

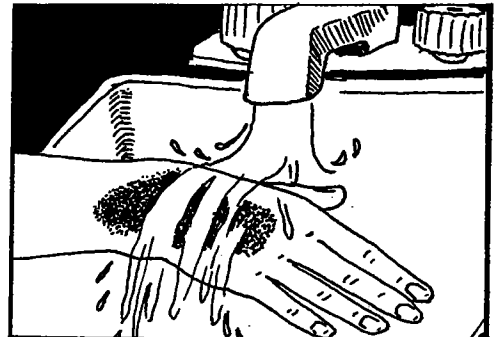
Burns

Burns should be treated according to the agent causing the burn and severity of the burn. Become familiar with the following two types of agents that cause burns:

CHEMICAL

TREATMENT

- Immediately rinse burn with a cool shower or hose for at least 5 minutes (if neither shower or hose is available, pour cool water over burn with clean pail).

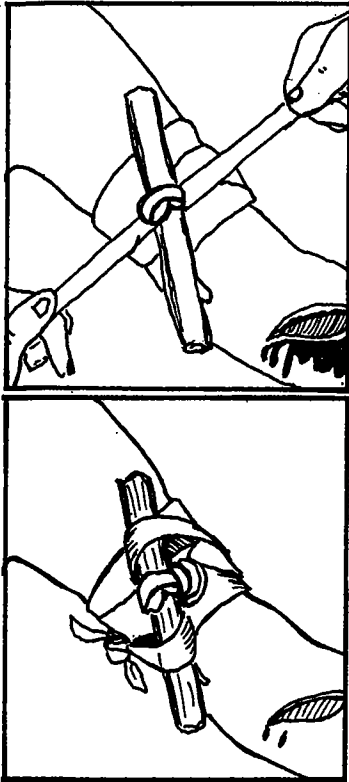


- Remove all contaminated clothing.
- Cover with a clean, nonadhering dressing or cloth.
- Seek medical assistance.
- If specific first aid directions are available for the chemical, follow them after rinsing with water.

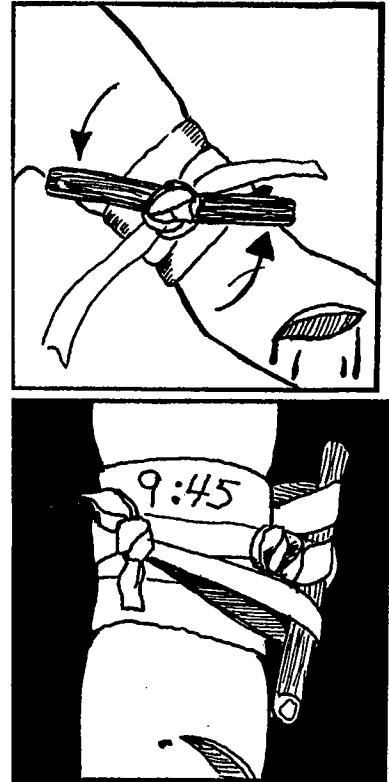
HEAT

TREATMENT

Heat burns are usually classified according to depth or degree of skin damage. Also, an estimation is made of the percentage of body surface burned. For first aid treatment, see the following chart.



3. Place a short, strong stick, metal or plastic object, about 6" long over the knot and tie two more overband knots on top of the stick.
4. Twist the stick and tighten the tourniquet until the bleeding stops.
5. Secure the ends of the stick to keep it from loosening.
6. **DO NOT LOOSEN** except on the advice of a physician.
7. Write down the exact time the tourniquet was applied and attach a note either to victim or the body.
8. Treat the victim for shock (see section in this *Project* on "Shock").



Internal Bleeding

Internal bleeding can occur in the head, chest, abdomen, or in any of the organs (liver, spleen, kidney, intestines, lung, heart) or from a ruptured blood vessel. With internal bleeding the symptoms will vary, and it may not be obvious where the bleeding is.

Severe internal bleeding should be treated with utmost urgency and immediate medical assistance should be obtained.

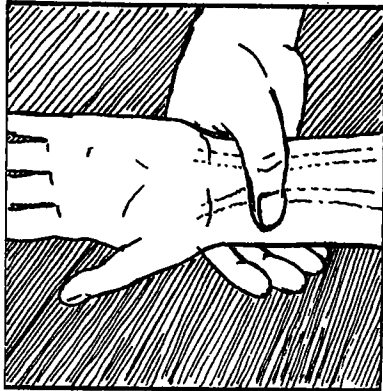
SYMPTOMS

- Victim in shock with no obvious bleeding (see section in this *Project* on "Shock").
- Tenderness of abdomen (may indicate rupture of the liver, spleen, or intestine).
- Bloody vomit.
- Blood in the urine (may indicate rupture of a kidney).
- Severe blunt injury or penetrating wound from a bullet or knife. (A severely fractured rib may lacerate a lung, the spleen, or a portion of the liver.)

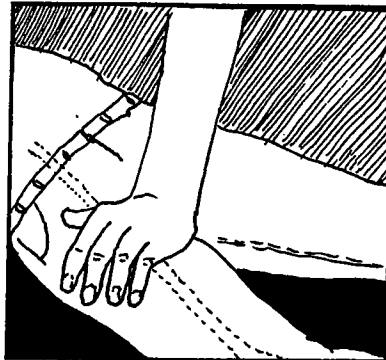
TREATMENT

- Transport to nearest medical facility as soon as possible.
- Treat for shock (see section in this *Project* on "Shock").

6. **HAND**—place your thumb on the inner side of the wrist and press toward the bone and compress the radial artery.



7. **LEG**—place the heel of your hand on the inner thigh at the crease of the groin. Press against the bone and compress the femoral artery.



Tourniquets

If the bleeding is so severe and not controlled by direct pressure or the use of pressure points, then the use of a tourniquet is appropriate.

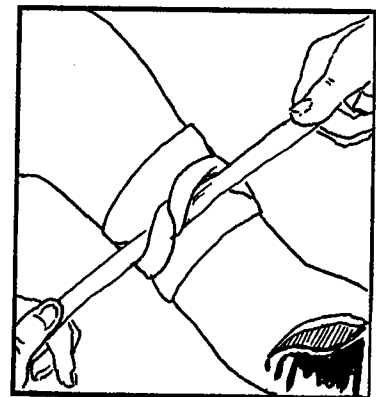
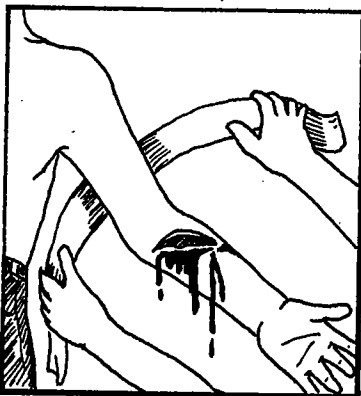
The use of the tourniquet is **DANGEROUS** and should only be used in life-threatening emergencies where all else has failed.

Bleeding from a torn vein is usually controlled by direct pressure or the use of pressure points. In contrast, bleeding from an artery is recognized by bright red blood spurting intermittently with each heartbeat. Most likely this type of bleeding cannot be controlled by pressure and the use of a tourniquet is needed to control life-threatening bleeding.

NOTE: Once a tourniquet has been applied, care by a physician is **IMPERATIVE!**

A tourniquet (cloth, belt, rubber $\frac{1}{2}$ " to 1" wide or rope if nothing else available) should be at least 2 inches wide. The following procedures should be used when applying a tourniquet:

1. The tourniquet should be placed between the wound and the heart and slightly above the wound (or just above a joint if a joint is involved).
2. Wrap the tourniquet tightly around the limb twice and tie a half knot.



Pressure Point Technique

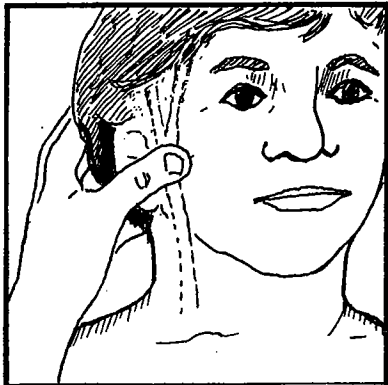
This simply means you compress the main artery supplying blood to the wound against an underlying bone.

Use it in conjunction with and not in place of direct pressure and elevation.

NOTE: This stops circulation to the entire limb so it is to be used **ONLY** if necessary and only until you get bleeding under control.

When choosing a pressure point you need to select an artery between the wound and the heart. The following are major pressure points:

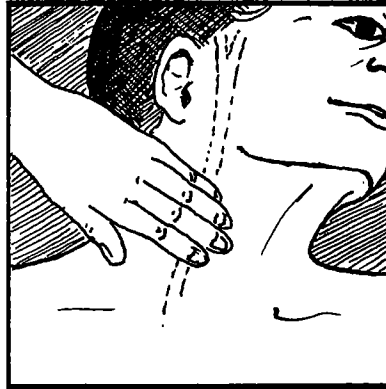
1. **SCALP**—press your thumb against the bone in front of the ear.



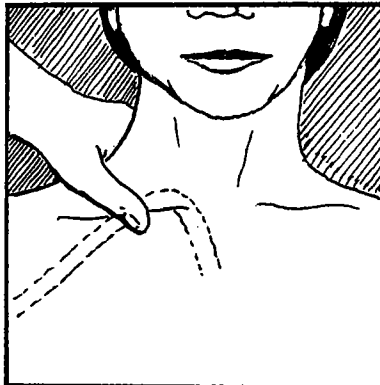
2. **FACE**—press your fingers (always use the pads, never the tips) against the hollow spot in the jaw.



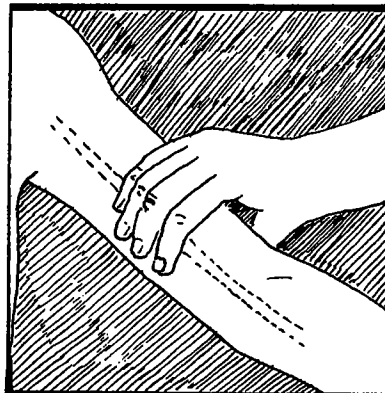
3. **NECK**—place your thumb against the back of the victim's neck. Put your fingers over the carotid artery (next to the windpipe) and press toward your thumb.



4. **CHEST OR ARMPIT**—press thumb in the groove behind the collarbone (Subclavian artery).



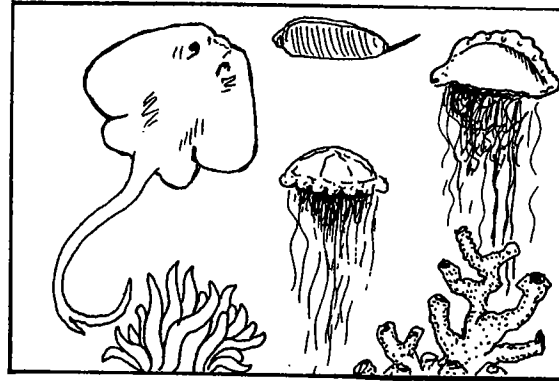
5. **ARM**—place your fingers on the inner side of the arm, pressing in the groove between the muscles. Keeping your thumb on the outside, press toward the bone and compress the brachial artery.



Marine Life Bites and Stings

Reactions to marine animal bites or stings can vary with individual sensitivity and the amount of venom injected. Medical aid should be sought immediately. The victim's breathing should be observed closely and mouth-to-mouth breathing should be given if necessary.

The treatment for marine life bites is similar to treatment for marine life that leave tentacles or stingers. Be cautious when removing them. Use a cloth instead of bare hands.



TREATMENT

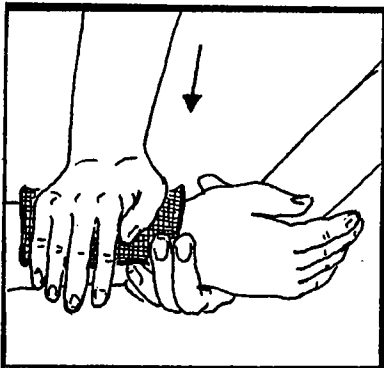
- Wipe the area with alcohol or diluted ammonia.
- Seek medical attention.

Bleeding

NOTE: Seek immediate medical aid for serious bleeding.

For treatment of bleeding, do the following:

1. Apply gauze or clean cloth over wound.
2. Apply direct pressure over the wound with the palm of your hand.



3. Elevate injured limbs higher than the heart (unless there is evidence of a fracture).
4. The cloth should not be removed; it may disturb a clot. If it becomes soaked with blood, add additional cloth.
5. Apply a pressure bandage by wrapping a strip of cloth or bandage over the pad on the wound; maintain a steady pull as you wrap both ends around the body part.
6. Check the pulse below the wound. If none, loosen the bandage until you feel one.

If direct pressure plus elevation does not stop severe bleeding, you need to use the **PRESSURE POINT** technique.

Insect Bites and Stings

If a person is subject to asthma, hay fever, or has a history of allergic reactions to insect bites, seek immediate medical assistance. Death can ensue very rapidly from an allergic reaction.

Also, anyone who receives a bite from a black widow spider, brown recluse spider, scorpion, or a tarantula should seek immediate medical assistance.

Bites or stings from fleas, mosquitoes, lice, gnats, chiggers, or other common insects produce local pain, itching irritation, and small red welts.

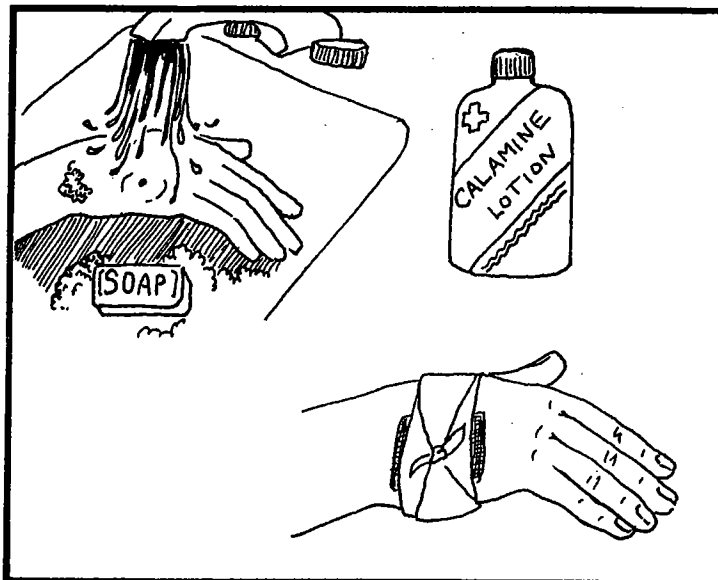
TREATMENT

- Wash the area with soap and water.
- Soothe with calamine lotion or cold compresses.
- Stings from bees, wasps, hornets and yellow jackets occasionally cause death due to an allergic reaction. If severe swelling occurs, give mouth-to-mouth breathing and seek immediate medical assistance.
- To remove the stinger from a bee sting, use tweezers and gently scrape the area to remove the venom sac.
- Ticks attach their mouthpart to the skin and may be visible as a dark spot.

TREATMENT

- a. Cover area with heavy oil (mazola, etc.) to smother tick.
- b. After 30 minutes lift tick out with a tweezer.
- c. Remove ALL parts.
- d. Wash with soap and water.

NOTE: Ticks may transmit Rocky Mountain spotted fever. A physician should be consulted.



ADDITIONAL REFERENCES

- American Heart Association. *A Manual for Instructor-Trainers and Instructors of Basic Cardiac Life Support*. 1974.
- American Red Cross. *Standard First Aid and Personal Safety*. Garden City, New York: Doubleday & Co., Inc. 1975.
- Bates, B. *A Guide to Physical Examination*. Philadelphia: J. B. Lippincott Co. 1974.
- Cox, M. *Protocol for Emergency Room Procedures and Hospital Management of Snakebites*. 1979.
- Green, M. I. *A Sigh of Relief: the First Aid Handbook for Childhood Emergencies*. New York; Bantam Books Inc. 1977.
- Hartley, J. *First Aid Without Panic*. New York: Hart Publishing Co., Inc. 1975.
- Thomas, L. J., & Sanderson, J. L. *First Aid for Backpackers and Campers*. New York: Holt, Rinehart and Winston. 1978.

RESOURCES

Check your phone book for the local chapter:

American Red Cross

Phone_____

American Heart Association

Phone_____

