

FIRST AID

POISONS AND BITES

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1. POISONS - INTERNAL

1.01 SYMPTOMS -

These vary considerably with the drug taken. There may be no early symptoms. Pain in the stomach, nausea, vomiting, and cramps frequently occur. If a corrosive poison has been taken, the mouth and tongue may be burned or stained. Headache, powders and sleep-producing drugs, of course, cause drowsiness or sleep, or even unconsciousness.

1.02 CARE - Always call a physician at once but in the meantime give First Aid. Two main points should be remembered:

- (1) Dilute - A poison diluted with a large amount of fluid is never absorbed as rapidly as when in a concentrated form. Vomiting is much easier to induce if the stomach is full.
- (2) Wash Out - When the poison is removed it can do no further damage. Repeatedly induce vomiting until the fluid is as clear as when swallowed. Both of these objectives are accomplished at the same time by any of the following emetics:

(a) Soapsuds, use any ordinary soap.

Note: Do not use present day detergents, as they may be harmful.

(b) Salt water.

(c) Soda water (dissolve ordinary baking soda in water).

(d) Quantities of lukewarm water.

(e) Milk, particularly in corrosive poisons.

1.03 Antidote - When the stomach is well washed out, one may give the antidote, if known and on hand.

1.04 Liquid - Give liquid if the victim is showing symptoms of shock. Also apply heat. If breathing stops apply artificial respiration.

1.05 Stimulants - Liquid stimulants, such as alcohol or aromatic spirits of ammonia should never be given. Coffee or tea given as hot as can be comfortably taken may be given every half hour.

1.06 The exception to the general rules, above, is when acid and alkali poisons are taken. You then neutralize and give a demulcent. (See American Red Cross First Aid Textbook.)

1.07 Gas Poisoning

(1) Symptoms are yawning, headache, dizziness, nausea, skin is often cherry-red color.

(2) Don't try to walk a gas victim around. You may make him worse.

(3) In severe cases, where breathing has stopped, give artificial respiration (see G10, 207, 4-S) and attempt to get an inhalator at once with a trained attendant.

2. POISONS - EXTERNAL

2.01 Poison oak, ivy, and sumac - The effects of poisoning from these three plants are all similar. Poison oak is illustrated.



(1) PREVENTION

- (a) Learn to recognize the plants and avoid contact with them. When in a locality where they are commonly found avoid exposing any more of the body than is necessary by wearing sleeves and trousers rolled down. Avoid, if practicable,

walking through or near the vines and shrubs. Also avoid any exposure to smoke from brush fires in which poison oak plants are likely to be present.

- (b) When exposure to poison oak is expected it is advisable for employees to immunize themselves by taking Oral Immunizing Extract Broemmel as outlined in subparagraph (f).
- (c) Employees who are known to be susceptible to oak or ivy poisoning should not be assigned to work in known infested areas unless they have been immunized against the infection by the doctor or as covered below in subparagraph (f).
- (d) Instructions for use of B-Y's Medicated Ointment - Before entering poison oak areas, rub in thoroughly to all exposed parts. Continue rubbing until greasiness or stickiness disappears. Repeat application after washing up or bathing.
- (e) Instructions for use of Vanfaire Lotion - Before entering poison oak areas apply a protective coating to all exposed parts. Do not rub it in, rather let it air dry to form a protective coating or invisible film. Repeat application following excessive perspiration, washing up or bathing.

Note: It is important that the legs from the shoe tops to the knees and the arms to the elbows receive the same preventative measures. The use of strong yellow soap should be discontinued as a preventative measure by the employees using the lotion and ointment.

- (f) Immunizing Extracts and Injections - The use of immunizing extracts and/or immunizing injections administered by physicians should be continued in lieu of or in addition to the use of ointment or lotion by those employees who have found this treatment to be helpful.

Use of Immunizing Mixture - Persons with known susceptibility to oak or ivy poisoning can generally secure immunity from these plants each season by taking an immunizing extract internally. This extract may be ordered in the usual manner, as a first aid supply and is listed as, MIXTURE, IMMUNIZING, EXTRACT, POISON OAK. The following precautions and instructions should be observed with its use:

- (1) It should be taken only by persons known to be susceptible to the poisoning.

- (2) No more than the contents of one bottle should be taken each season and it should be taken in doses only as directed on the bottle.
- (3) For best results the mixture should preferably be taken up to one month in advance of exposure, but it may safely be used, and generally proves helpful if taken after known exposure or after infection has started. When used for treatment after the infection has started it should not replace the use of calomine lotion or other approved first aid measures.
- (4) In cases where the infection has become serious and wide spread, or when it involves the eyes, medical care should always be secured in addition to the use of the mixture and other approved first aid measures.
- (5) Since the degree of immunity obtainable through the use of the immunizing mixture is uncertain, and since the duration of the immunity may vary with different individuals, anywhere between four months and one year, the preventative measures outlined in the foregoing should not be discontinued after taking the mixture.

(2) SYMPTOMS -

After contact with these plants, the skin becomes red and swollen and itches violently. Some small blisters begin to form, which may unite into large blisters. Frequently these become infected from scratching and form pus.

(3) CARE -

- (a) Wash exposed areas of skin with hot water and strong laundry soap. Repeat four or five times. Do not scrub with a brush or rough materials.
- (b) If a rash develops, first wash thoroughly with soap and warm water, and then with rubbing alcohol, if available.
- (c) Apply BY's medicated ointment or Vanfaire lotion liberally as instructed under "Prevention" (d) and (e). Repeat as often as necessary and continue treatment until rash disappears.

- (d) Calomine lotion may be used by those employees who feel it a more effective remedy.
- (e) Instructions for use of Calomine Lotion - The lotion should not be rubbed into the skin, but should be painted or daubed over the areas involved by means of a small wad of cotton, cloth, or sponge, or it may be spread on with the fingers. Repeated applications of the lotion should be made at intervals necessary to keep the parts covered until the rash heals or disappears. Calomine lotion, BY's Ointment and Vanfaire Lotion may be ordered in the usual manner as a first aid supply and are listed in Section G of catalog of supplies. In severe cases, a physician should be consulted.
- (f) The use of calomine solution or other preparations for first aid treatment should be discontinued by employees using BY's medicated ointment or Vanfaire Lotion.
- (g) A physician's services should always be obtained in serious cases affecting the eyes.

3. BITES

3.01 ANIMAL BITES, especially those of dogs and cats.

- (1) Special Dangers - The mouths of dogs and particularly cats are likely to contain germs that may cause infection. The wound made is usually a puncture wound, but may be a laceration.
- (2) CARE - Wash wound to remove saliva. When dry, apply iodine sterile compress, dress as other puncture, or lacerated wound.

Always consult a physician at once if the wound requires medical attention or if there is any possibility of rabies.

3.02 SNAKE BITES -

There are 2 types of First Aid treatment in connection with poisonous snake bites, insect bites and stings, the "Tourniquet and Ice" treatment known officially as "Ligature Cryotherapy" or "L-C"; ligature meaning "Tight Tourniquet" and cryotherapy meaning to treat with lowered temperature, and the "Lancing and Suction" method. Both of these methods are described under "Care."

(1) PREVENTION -

Most snake bites can be prevented when working in snake infested regions by wearing high-topped boots or heavy leggings and by being extremely careful about putting the hands in places where they might be bitten. Avoid sleeping on the ground.

(2) CARE -

- (a) **TOURNIQUET AND ICE TREATMENT** start treatment at once. Make victim lie down and keep quiet. Place a tourniquet at once between the site of the bite or sting and the body, but as near the point of entrance of the venom as possible. A handkerchief, necktie, shoestring or bandage will serve very well as a tourniquet. Do not make any incisions at the site of the bite or sting. This is unnecessary and is only inviting more difficulties.

Place a piece of ice on the site while preparing a suitable vessel of crushed ice and water. Place the entire bitten hand or foot in the iced water prepared. In general, immerse the member bitten or stung in the iced water well beyond the tourniquet.

After the hand or other member has been in the iced water for five minutes, the tourniquet must be removed, but the hand or member must be kept in the iced water until the bitten person is under the care of a physician. In case no physician is available at least six hours will be necessary in order to prevent serious destruction of tissue from poisonous insect bites and stings and at least 20 hours for poisonous snake bites. During this time it is imperative that the patient be kept warm so that circulation through all parts of the body except the poisoned member is good. If the individual is bitten on an area other than the lower hands or feet a large ice pack of finely chopped ice may be used. In using the ice treatment, the initial pain experienced during the first five minutes must not be confused with the action of the venom.

Note 1: Venom action is chemical action. Lowered temperature reduces the chemical action and causes the tissues to contract and the capillaries to constrict; thus the venom is so held that it will enter the body very slowly and will

be distributed throughout the body in an extremely diluted condition, too diluted to cause adverse effects. In addition to the above the anesthetic action of the cold provides ample time for the physician to administer anti-toxin where such is available. Death can be prevented with this treatment alone if sufficient time is given for its use.

Note 2: The use of ethyl chloride or other substitutes for ice is not approved for first aiders at this time since there is extreme danger in its use by other than trained personnel of the medical profession.

When it is not possible to administer the "Tourniquet and Ice" treatment, the "Lancing and Suction" method may be used.

(b) LANCING AND SUCTION METHOD WITH SNAKE BITE KIT-

Start treatment at once. Make the victim lie down and keep quiet. Tie a constricting band around the limb just above the bite to restrict the spread of the poison and make the veins "stand out" on the surface. This band may be a handkerchief, necktie, shoestring, or bandage. It should be tight enough to prevent the return flow of blood and lymph in the surface vessels, but not tight enough to affect the deeper arteries and veins.

Sterilize a sharp knife or razor blade with match flame, iodine or alcohol. Make a crosscut incision through each fang mark, about 1/4 inch long. When the fang marks are close together, a single cut can be made connecting both with two crosscuts. Avoid large veins and arteries near the surface.

Apply suction immediately and keep it up until the doctor arrives. If mechanical suction devices are not available, suction by mouth is possible. Mouth suction may be needed immediately while you get a mechanical device. Be careful not to swallow any of the fluid.

Give a dose of epsom salts internally to act as a purgative. Give plenty of water to drink and continue the regular first aid for treatment of shock.

If a snake bite pocket outfit containing a syringe is available, follow its directions. The syringe may be used to best advantage as follows:

Place mouth of syringe over cuts with plunger or syringe down. Hold tight against skin and pull plunger back but NOT out of syringe. This will draw out the poison and blood. Empty the syringe and repeat. If you find that you are not drawing blood, loosen the constricting band for five seconds and retighten. Continue using syringe as very little fluid will be extracted during the first hour. As swelling develops a large quantity of fluid may be drawn out.

REMEMBER, THREE DROPS OF VENOM WILL KILL, so if only one drop is extracted during the first hour, a life may be saved.

If the bite is between the fingers or on any part of the body that does not permit the mouth of the syringe to obtain a tight seal, place the cork or the rubber attachment tube, whichever is furnished, in the mouth of the syringe and extract venom through the hole in the cork or tube.