

Making Vacations Safe For Pleasure

What To Do When Accident Mars Your Holiday

By Jane Stafford

DRIVING all day, hurrying to make the next town before nightfall, you fail to see the car coming up the side road until too late. After the crash you find yourself uninjured but the other fellow wasn't so lucky. Motor laws of most states require that you stop and give first aid. Of course you want to help the man, but what should you do first?

Before you can decide that you must find out how badly he is hurt. Is he unconscious? Has he broken any bones? Is he badly cut or bruised? The chief thing to do is to make the man as comfortable as possible and then take him to the nearest doctor, unless you have someone to send for a doctor.

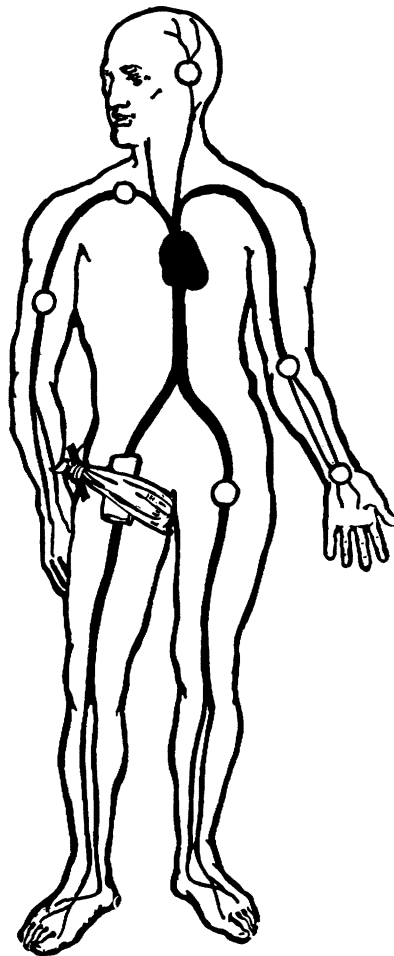
Broken bones should be put in temporary splints, profuse bleeding must be checked, wounds should be protected from further infection. Further treatment should be left to the doctor.

Over 80,000 people are killed in this country each year by traffic accidents, drowning, burns, falls, etc., and over two million more are seriously injured in the same way. Obviously the vacationist and motorist needs to know methods for giving first aid and the correct equipment to have handy for use in such emergencies.

A PERSON who has broken a bone nearly always feels faint and nauseated, is pale and may lose consciousness. The same thing occurs after every injury, including poisoning, apparent drowning, etc. It is known as surgical shock (not to be confused with electrical shock).

The patient should be made to lie down with his head lower than the rest of his body. He should be covered with warm blankets or clothing, and hot water bottles should be put around him under the coverings. Hot bricks or stones may be used if you have no bottles, but be careful that the bottles or bricks are not too hot. An unconscious patient cannot tell you when he is being burned.

If the patient is conscious, give aromatic spirits of ammonia, hot strong tea, or hot black coffee. If he is not conscious, give nothing by mouth but pour a little aromatic



Pressure applied at points indicated by circles will check bleeding from the arteries. A tourniquet, professional or home, should be used.

spirits of ammonia on a cloth and hold under his nose.

The arms and legs should be massaged, always rubbing toward the body, and keeping them covered while rubbing.

The most important thing in cases of broken bones is to keep the bones absolutely motionless. In this way further damage is avoided. When a bone breaks and there is no wound or break in flesh or skin, it is called a simple fracture, in contrast to a compound fracture, where the skin is broken and the end of the broken bone is sticking through.

The great danger in compound fractures is from infection. Simple fractures must be handled carefully to prevent them from becoming compound.

In either case the broken bone should be held between splints which are padded and held in place with a bandage. In compound fracture, the wound is covered with a sterile dressing. In putting splints on, the injured part should be held in the most natural position possible without moving too much to get it in that position.

SERIOUS cuts from knife or axe are often the lot of the inexperienced camper. Bobby tries to help his father cut wood for the camp fire but the heavy axe slips and cuts a nasty gash in Bobby's leg. The chief thing for Bobby's father to do is to keep the wound free from dirt, which means to keep everything, including his own hands, out of it.

Only a dry, sterile compress or bandage compress should be put on an open wound. Nothing else should touch it. It is far better to leave the wound uncovered than to put just any bandage or handy piece of rag, even though apparently clean, on it. Only in this way can the danger of blood poisoning, or infection with harmful bacteria, be avoided.

Pieces of wood or glass or clothing that are in the wound may be removed, if this can be done without touching the wound itself, or its edges, with the hands.

In bandaging a wound, the bandage should be handled so that the part of it which is to cover the wound is not touched by the hands or anything else. That part should be laid directly on the wound. Compresses and bandage compresses are usually made so that they may be opened and handled without touching the part meant to cover the wound. A roller bandage should be held by the ends, keeping the center clean and free from germs.

BLEEDING from an ordinary cut will stop as soon as the blood clots, but if a vein or artery has been cut, the blood will continue to flow so that clotting is impossible. Blood from an artery is bright red and spurts out, that from a vein is dark and flows evenly. Either type of bleeding must be checked at once to prevent serious, possibly fatal harm to the injured person from loss of blood.

Pressure over (Turn to next page)

the vein or artery will stop the bleeding. When the bleeding is from an artery, pressure should be applied between the heart and the wound. When bleeding is from a vein, pressure should be on the other side of the wound from the heart.

A tourniquet is commonly used to apply pressure, but one may easily be made from materials at hand, such as tie, belt, handkerchief or suspenders. Wire, rope and cord should not be used. Wrap the bandage or strap over a pad at the point where pressure is to be applied, slip a stick of wood or even a lead pencil inside it and twist to tighten, until the flow of blood stops. A tourniquet should be loosened after twenty minutes. If bleeding starts again, the tourniquet should be tightened again.

Bleeding will increase if the heart action is speeded up, so the patient should be kept quiet, lying down, and no stimulants should be given.

THE perils of a vacation spent at the shore may be greatly lessened if the method of applying artificial respiration is learned before starting on the holiday. This first aid procedure is used after apparent drowning and also after electric shock or gas poisoning. It is likewise important to the motoring family, any member of which may be exposed to the hazard of carbon monoxide gas from the automobile exhaust.

The patient should be turned on his belly, one arm extending straight, the other bent at elbow with head resting on it, face turned to one side so mouth and nose are free to breath. The operator kneels, straddling the patient's thighs. The palms of the hands are placed on the small of the patient's back, little fingers just touching lowest ribs, arms held straight.

In this position, the operator swings slowly forward gradually bearing his weight on the patient, till operator's

What to Put in First-Aid Kit

Two gauze bandages 2½ inches wide.
Two cotton bandages 3 inches wide.
One roll adhesive plaster 1 inch wide.
One dozen safety pins.
One ounce absorbent cotton.
One yard of plain sterile gauze.
One ounce tincture of iodine.
Two ounces bicarbonate of soda.
One drachm permanganate of potash (for snake and insect bites).
One dozen compound cathartic pills (for adults only. Dose: 1 to 3 pills).
Four ounces castor oil (for children).
One clinical thermometer.
One hot water bag.
Aromatic spirits of ammonia (use ½ to 1 teaspoonful in glass of water as stimulant).

shoulder is above the heel of his hand. This should take about two seconds, and then immediately he should swing backwards, removing the pressure completely.

After two seconds the forward swing is started again. This should be repeated twelve to fifteen times a minute without interruption, for hours, if necessary, until the patient starts breathing or a doctor pronounces him dead. If the patient's natural breathing starts and after a short time stops again, artificial respiration must be started over again.

Artificial respiration should be started at once, without moving the patient from the spot where he is lying, except in cases of gas poisoning. While it is being carried out, an assistant should loosen tight clothing about the neck, waist or chest, and should keep the patient warm.

After he is restored he should be kept quiet and if he must be moved, it should be done while he is lying down.

IN treating burns, the two chief things to do are to keep out air and to keep the burn clean, as one would an open wound. Extreme sun-

burn should be treated like any other burn. Shock as well as pain may follow burns from the sun or other sources. Clothing should be gently removed and then a sterile gauze dressing, or a sterile picric acid dressing, should be put on the burn and held in place with a loose bandage. Keep patient quiet and treat for shock if necessary.

Bicarbonate of soda, or permanganate of potash, moistened with water, may be applied to insect bites. A solution of table salt or alcohol or cold water can also be used. Scratching mosquito bites should be discouraged, as there is danger of infection.

SICKNESS as well as injuries may occur on vacations. Food cooked over a camp fire is tasty but sometimes underdone. Strange combinations are often eaten by the vacationist. The active, outdoor life is a great aid to digestion, but even so the stomach may be overtaxed, and a digestive upset will ruin the most perfect vacation.

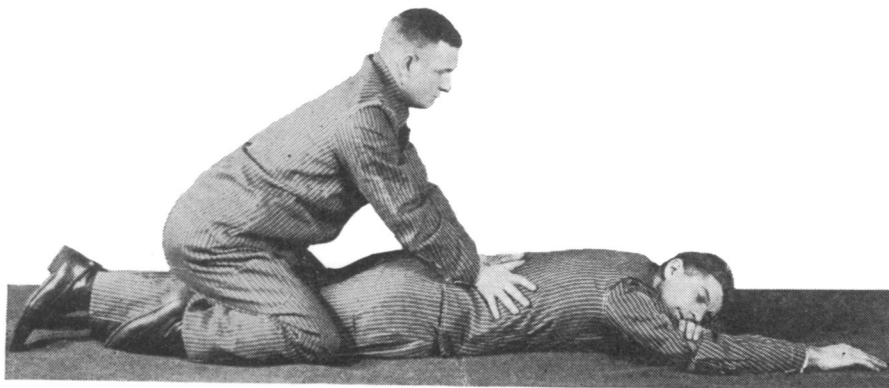
Bicarbonate of soda, ordinary baking soda, is first aid to the upset stomach, besides being valuable for treating insect bites and burns. For indigestion, a teaspoonful in a glass of water. For bites or burns, moisten and apply directly to the injured part.

POISONING, except from spoiled food, is not particularly a vacation hazard, but may occur even at home. When a person swallows poison, the thing to do is to send for a doctor and to give the patient something to make him vomit, so as to get the poison out of his stomach. But if the lips or tongue or throat are burned by a strong acid or caustic alkali, it is not safe to induce vomiting.

AFTER you have given first aid to an injured person, you must get him to his home or a hospital with as little further pain and injury as possible.

If he is able to walk, he should put his arm about your neck and shoulders, and you can further support him with your arm around his waist.

If the person is so badly injured that he cannot or should not walk, the stretcher is the best method of transporting him. (Turn to page 413)



This is the way the U. S. Bureau of Mines trains workmen to practice the prone pressure method of artificial respiration on each other.

Many Occupations Cause Deafness

Health

IF a group of weavers tried to strike for better pay or shorter hours they would have a hard time holding a meeting, because so many would be unable to hear what their leader was trying to say.

This possible outcome of deafness as a result of a noisy job was brought to the attention of the Federation of Organizations for the Hard of Hearing by Dr. Frank G. Pedley, of the Montreal General Hospital.

A Scottish physician has found that 75 per cent. of boiler makers either could not hear at all at a public meeting, or could hear only with difficulty and Dr. Pedley's own experience with weavers is similar.

"Every one has heard of boiler-maker's deafness, but there are many other occupations in which work is carried on amid a most frightful din, and in which the workers almost invariably lose their hearing," he stated.

Among occupations which are hard on the ears are: Spinning, carding and combing in the textile industry, chipping and stamping metals, stone cutting, tunnel construction, riveting,

stoking aboard ship. Some jobs in aviation, testing of firearms, cement manufacture, and wood work were included.

The number of individuals exposed to undue noise runs into hundreds of thousands, Dr. Pedley estimated. Chronic occupational deafness usually creeps on insidiously until some one calls the victim's attention to it. This type of deafness is traced to a degeneration of the delicate receiving apparatus of the internal ear.

DEFECTIVE hearing can be inherited, Dr. Emil Amberg, of Detroit, emphasized in an address on marriage and deafness.

Citing types of inherited deafness, Dr. Amberg spoke of otosclerosis, a disease characterized by the formation of spongy bone in the labyrinth of the ear. Investigations indicate that this condition exists in certain persons who have an inborn tendency to it. Marriage between close relatives is likely to result in deafness among the children, if the parents had a record of deaf-mutism in the family.

Science News-Letter, June 28, 1930

Fossils of Virginia—Continued

tropics all those regions in which the bones are found: the tropics being, as before observed, the natural limits of habitation for the elephant. But if it be admitted that this obliquity has really decreased, and we adopt the highest rate of decrease yet pretended, that is of one minute in a century, to transfer the northern tropic to the Arctic circle, would carry the existence of these supposed elephants 250,000 years back; a period far beyond our conception of the duration of animal bones left exposed to the open air, as these are in many instances. Besides, though these regions would then be supposed within the tropics, yet their winters would have been too severe for the sensibility of the elephant. They would have had too but one day and one night in the year, a circumstance to which we have no reason to suppose the nature of the elephant fitted. However, it has been demonstrated, that, if a variation of obliquity in the ecliptic takes place at all, it is vibratory, and never exceeds the limits of 9 degrees, which is not sufficient to

bring these bones within the tropics. —One of these hypotheses, or some other equally voluntary and inadmissible to cautious philosophy, must be adopted to support the opinion that these are the bones of the elephant. For my own part, I find it easier to believe that an animal may have existed, resembling the elephant in his tusks, and general anatomy, while his nature was in other respects extremely different.

Science News-Letter, June 28, 1930

Safe Vacations—Continued

A stretcher can be improvised from two poles and some coats. The poles are slipped through the sleeves of the coats which have been turned inside out. The flaps are then turned down and buttoned underneath.

In case you are alone with the injured person you can carry him in your arms for a short distance. For a longer distance it is best to use the fireman's lift and carry him on your back.

Science News-Letter, June 28, 1930

NEW BOOKS

SOME APPLICATIONS OF ORGANIC CHEMISTRY TO BIOLOGY AND MEDICINE—George Barger—*McGraw-Hill*—186 p. \$2.50. Six lectures given under the George Fisher Baker non-resident lectureship in chemistry at Cornell University by the professor of chemistry in relation to medicine at Edinburgh University. The subjects covered are hormones, vitamins, chemotherapy, chemical constitution and physiological action, and the blue adsorption compounds of iodine. The book is too technical to be read without considerable knowledge of chemistry, but scientists and students of biology, chemistry and medicine will enjoy these lectures by an eminent authority.

Biochemistry

Science News-Letter, June 28, 1930

AN ALBUM OF OUR WILD FLOWERS; AN ALBUM OF OUR TREES—S. Gabriel Sons and Co. \$2 each. These two books may be used to encourage young beginners in botany to found their own herbaria. Each consists of a number of sheets on which pressed specimens may be mounted, a sheet of gummed strips for holding them down, and several pages of pictures which will aid in identifications, printed in color on gummed paper which may be stuck to the herbarium sheets.

Botany

Science News-Letter, June 28, 1930

THE LONDON NAVAL CONFERENCE: ITS BACKGROUND AND RESULTS—B. H. Williams—*Univ. of Pittsburgh*. 111 p., 75c. A series of twelve radio talks, published in an attractive paper-bound book. With the Battle of the Treaty now looming in the Senate, these essays are timely and will be useful as a review of the naval situation.

Politics

Science News-Letter, June 28, 1930

FRUIT MARKETS IN EASTERN ASIA—B. H. Crocheron and W. J. Norton—*Univ. of California Printing Office*. 366 p. "Around the world each useful product flies," wrote Oliver Goldsmith many years ago. The author of "The Deserted Village" would doubtless have been amazed to learn that the appetite for fruit of Malays in the Dutch East Indies helps to keep villages in California and Palestine well populated. This and a thousand other like facts make this economic bulletin most interesting reading.

Economics

Science News-Letter, June 28, 1930