

VALUES IN EDUCATION



FIRST AID

HANDBOOK

SUN LIFE ASSURANCE COMPANY
OF CANADA

IS PLEASED TO HAVE PARTICIPATED WITH THE ST. JOHN
AMBULANCE IN BRINGING THIS HANDBOOK TO YOU.

Important

This is a pocket size First Aid Handbook based on St. John Ambulance teaching. It covers only simple and common aspects of first aid and for full instruction the reader should complete a St. John Ambulance course.

John W. Crawford

Surgeon-in-Chief
Priory of Canada
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SIMPLIFIED FIRST AID

PAGE

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FIRST AID TO THE SICK AND INJURED

P R E F A C E

First Aid is the immediate assistance which a trained person can give the victim of an accident or of sudden illness, pending the arrival of a doctor. First Aid cannot replace proper medical or surgical care but it may prove vital if a doctor is not immediately available.

Lack of training may cause serious errors to be made and of these the most important is delay in obtaining medical assistance. The following pages contain guidance only on simple matters, and the teaching is based upon the latest St. John Ambulance text books.

There is no one who would not benefit from a course of training in First Aid; the reader is urged to contact the local branch of St. John Ambulance to arrange attendance at one of the regular classes.

OBJECTIVES AND PRINCIPLES OF FIRST AID

FIRST AID training to have real value must be entirely practical. Its only purpose is to teach non-medical personnel how to apply common sense in helping their injured fellows. FIRST AID is not an abbreviated course in medical theory, — rather it is intended to be a simple practical guide for effective action in time of emergency.

The **OBJECTIVES OF FIRST AID** are:

1. to preserve life.
2. to minimize the effects of injury.
3. to relieve pain and distress.

Before carrying out FIRST AID treatment it is necessary to

FIND OUT WHAT IS WRONG
(i.e. "DIAGNOSIS"):

LISTEN carefully to the story of how the accident occurred; it may give valuable clues as to the probable nature of the injuries. Such clues are particularly helpful in assessing the injuries of unconscious casualties; e.g., a person who has fallen 30 feet will almost certainly have at least one broken bone in addition to

the head injury which renders him unconscious.

ASK the injured person to tell where he is hurt.

EXAMINE the casualty quickly but systematically.

- Look for bleeding to indicate wounds.
- Feel the scalp for “bumps”.
- See if he is able to raise his head and move his neck without pain. If he can do this his neck is not broken.
- Ask him to lift each arm and leg separately. If a limb cannot be moved, run a hand gently along it looking for areas of tenderness or swelling.
- Ask him to take a deep breath and cough. If he can do so without pain he is unlikely to have broken ribs or serious chest injury.
- Ask him to “pull in his stomach” and “blow it out again”. If he can do this without distress, he is probably free from “internal” injury.
- Without moving or lifting the casualty run a firm hand down the centre line of his back. A tender spot may mean a broken spine.

In examining an injured person, it may be necessary to remove some clothing.

Do not remove or destroy clothing unnecessarily, but if further access to a part is essential, do not hesitate to cut the clothing sufficiently for the purpose. When removing jacket, shirt, or trousers, always slip garment off the sound limb first, then off the injured limb.

IN CARRYING OUT FIRST AID TREATMENT THERE ARE CERTAIN GENERAL RULES WHICH ARE APPLICABLE IN EVERY CASE:

1. SEND FOR THE DOCTOR

When dealing with severely injured casualties it is of prime importance to get medical help quickly. SPEED is important because it is now well established that the main factor in saving lives and limbs of those who are seriously hurt is early surgical treatment. FIRST AID is administered during the few minutes before doctor or ambulance arrives, or before a stretcher is found on which the casualty may be carried back to hospital or FIRST AID Post. First Aid must be carried out promptly with materials which are immediately available. FIRST AID must not delay FIRST TREATMENT.

2. REST

It is generally wise to keep an injured person lying quietly at rest. This is particularly true if he seems badly hurt or if there is doubt as to the exact nature of his injuries. Unless it is certain that the damage is trivial no attempt should be made to help the casualty to his feet. Nevertheless, if the casualty is in an exposed or dangerous situation, or if he is obstructing traffic, he must be transferred to a safe spot. First, however, he should be quickly examined so that the First Aider can decide if he needs to be moved on a stretcher, or whether it is safe to use some method of hand carriage.

3. ORGANIZATION

The competent First Aider will promptly take control of bystanders. Those with knowledge of FIRST AID may be asked to help with treatment. Others should be sent for doctor, ambulance, stretcher, blankets, hot drinks, bandages, splints, etc., as necessary. In the case of road accidents, someone should be detailed to control traffic and so prevent further injuries.

4. WARMTH

Blankets, coats, etc., should be used to prevent the injured person from becoming chilled. It is important to place as many thicknesses underneath as over him.

5. FLUIDS

If an injured person seems thirsty it is permissible to give him a drink unless internal hæmorrhage is suspected. There is, however, no value in forcing the intake of large amounts of liquid—this may result in nausea and vomiting. As a general rule it is best to give only small amounts at a time. Water is always acceptable but hot tea or coffee may be more satisfying, particularly in cold weather. Alcohol should not be given. Under no circumstances should one attempt to give fluids by mouth to an unconscious casualty.

6. REASSURANCE

Fear and anxiety are often the most distressing aspects of accident cases. Words of comfort help only a little, but an attitude of calmness combined with a display of quiet efficiency will do much to inspire confidence and relieve fear.

ARTIFICIAL RESPIRATION

May be required after drowning, poisoning by gases (household gas, automobile exhaust gas) or electrocution (electric shocks, lightning).

Remove victim from water or from gas-filled room, taking care not to fall victim yourself. If in contact with electricity, break the current or contact by switching off the current or by using a non-conductor such as a long, dry wooden pole.

Send for doctor.

ORAL RESUSCITATION (MOUTH-TO-MOUTH) METHOD

Press the casualty's head to the fully extended position and draw the chin well forward (Fig. 1). The airway to the lungs will now be fully open, unless it contains foreign matter of some sort. In some cases it may be necessary to insert the thumb into the mouth in order to hold the tongue forward.

Fig. 1



The rescuer now takes a deep breath, and places his mouth over the mouth of the casualty. The rescuer's cheek may block the casualty's nose (Fig. 2). If not, the rescuer should pinch closed the casualty's nostrils (Fig. 3), using the hand not engaged in holding the chin up. This is generally the better procedure.

The rescuer then blows into the casualty's lungs, sufficiently strongly to cause the casualty's chest to rise. This movement may be seen by the rescuer looking out of the corner of his eye.



Fig. 2



Fig. 3

The rescuer then turns his head away, takes another breath and repeats the cycle. In the interval, air passively exhales from the casualty's lungs. There may be an audible sound and the chest will fall.

The cycle should be repeated about every three to five seconds for an adult, and a little more frequently for a child. The blowing will be less strong for a child or baby, but in any event should be strong enough to cause the casualty's chest to rise.

NOTE:

When it is not possible to make a satisfactory seal mouth-to-mouth, the operator's hand supporting the chin should be brought up over the casualty's mouth to close it off completely while the operator blows through the casualty's nose (Fig. 4).

Fig. 4



In the case of very small infants, it may be found better for the operator to cover with his mouth both the mouth and nose of the casualty, and blow through both at the same time.

THE HOLGER-NIELSEN METHOD OF ARTIFICIAL RESPIRATION

Lay the victim in the prone position and place his hands, one over the other, under his forehead.

To ensure that the air passages are straight tilt the head and chin upward by putting a book or folded clothing or a heap of earth or sand, under the victim's hands.

The nose and mouth must be unobstructed.

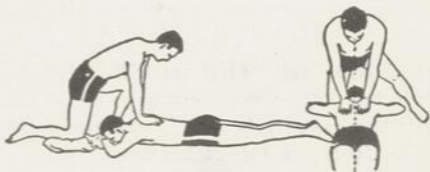
POSITION OF THE OPERATOR —

Place one knee with the inner side in line with the casualty's cheek, six to twelve inches from the top of his head.

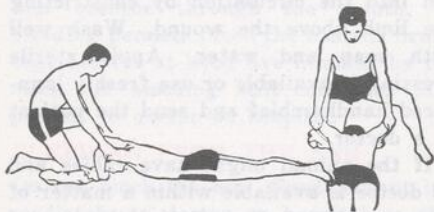


Place the other foot with the heel in line with the casualty's elbow.

Place the hands on the casualty's back with the heel of the hands on the lower part of the shoulderblades, the thumbs alongside the spine, and the fingers pointing to the casualty's feet. Or, the fingers may be spread downward and outward, with the tips of the thumbs just touching.



MOVEMENT 1 — Keeping the arms straight, rock gently forward until the arms are vertical or almost vertical, depending on the build of the casualty or that of the operator, using no special force, counting "one, two." This pressure causes expiration.



MOVEMENT 2 — The operator now rocks back, counting “three” and slides his hands past the casualty’s shoulders until they can grip his upper arms near the elbows. He raises and pulls on the arms until tension is felt, counting “four, five”. He should take care not to raise the chest from the ground. This movement causes inspiration. The operator’s arms should remain straight for the whole period.

Counting “six” the operator gently lowers the casualty’s arms to the ground and replaces his hands in the original position.

BITES BY ANIMALS

Encourage bleeding; delay entry of poison into the circulation by constricting the limb above the wound. Wash well with soap and water. Apply sterile dressing if available or use freshly laundered handkerchief and send the patient to a doctor.

If the animal might have rabies and no doctor is available within a matter of minutes, probe all parts of the wound with clean wood (e.g., a match stick) dipped in permanganate of potash.

BITES BY SNAKES

Encourage bleeding; delay entry of poison into the circulation by constricting the limb above the wound. Wash with soap and water. Apply clean or sterile dressing. Send patient to a doctor.

If possible, kill the snake and send it with the patient so that the type of reptile can be identified.

BLEEDING

For external bleeding, see WOUNDS. Bleeding from internal organs is handled depending upon the source.

BLEEDING FROM THE NOSE

Loosen collar, sit patient upright, have him breathe through the mouth. If bleeding persists pinch the nostrils firmly together for at least five minutes by the clock. If bleeding still continues take patient to doctor or hospital.

BLEEDING FROM THE EAR

Do not block the ear. Send patient immediately to doctor or hospital as this may be a sign of fracture at the base of the skull.

BLEEDING FROM THE LUNGS

Coughing up frothy bright red blood may be due to disease or from damage to the lungs—e.g. penetration by a fractured rib. Make patient comfortable in a sitting position and remove him to hospital immediately.

BLEEDING FROM THE STOMACH

Vomited blood may be red in colour or dark brown like coffee grounds. In some cases nothing is vomited but the patient shows general signs of internal bleeding and passes tarry black stools. Disease of the stomach is usually the cause. Give nothing by mouth and remove patient immediately to hospital.

BLEEDING FROM THE KIDNEYS OR BLADDER

The urine is smoky or red. This may be due to disease of these organs, crushing injury or blows to the kidneys or by fracture of the pelvis. Have patient rest comfortably until removed to hospital at earliest opportunity.

BLEEDING FROM THE BOWELS

Bright red blood or black tarry material is passed. Remove patient to hospital.

BLEEDING FROM THE LIVER, SPLEEN, OR PANCREAS

Haemorrhage into the abdominal cavity may follow rupture of these organs due to severe blows or crushing injury. The only evidence may be signs of acute or increasing blood loss without visible bleeding. Remove patient to hospital as a matter of extreme urgency.

The general signs of severe blood loss include pallor, excitement and restlessness, cold clammy skin and rapid pulse. Pain and fear may aggravate these symptoms.

BLISTERING FEET AND HANDS

Prevent by wearing properly-fitted foot-gear with heavy socks. Treat by washing in warm soapy water, by drying and rubbing with Rubbing Alcohol.

Do not break the blisters. Dust with powder and cover with sterile dressing.

BRUISES

The size of a bruise can partly be controlled by the application of cold dressings immediately following the injury.

BULLET WOUNDS

Stop bleeding, if possible, by application of firm dressing and take patient to hospital.

BURNS AND SCALDS

Do not remove clothing. Do not break blisters. Cover entire area with sterile dressings or freshly laundered handkerchief or sheets. Bandage firmly. Wrap patient in blankets. Give warm fluids, preferably weak tea sweetened with sugar.

BURNS BY STRONG ACIDS

Drench the area with water followed by an alkaline solution (2 tablespoons of Bicarbonate of Soda to each pint of water). Treat as a burn.

BURNS BY STRONG ALKALIS

Drench the area with water. Cover with sterile gauze dressing and refer patient to a doctor or hospital as soon as possible for further treatment. If caused by quicklime, brush off any particles before washing.

CHOKING

Usually due to something sticking at back of throat. Try to dislodge by thumping the back between the shoulders. If a child, turn upside down and thump on back. If this fails, open the mouth and pass two fingers to back of throat and try to pull up obstruction. If impossible try to push it back down the gullet. If vomiting results turn patient's head to one side.

CLOTHING ON FIRE

Smother flames by covering patient with rug or other material. If in the open, roll patient over and over. Treat as for burns.

FAINTING

The patient should lie flat with the feet raised on a pillow. Recovery will occur naturally but may be hastened by using smelling salts. Insist upon further rest after consciousness is regained.

FITS AND CONVULSIONS

These pass of their own accord and First Aid is limited to efforts to prevent the patient injuring himself during fit.

If not a known epileptic the patient should visit a doctor.

FISH HOOK—EXTRACTION OF

Do not attempt to remove. Cover with clean or sterile dressing and take patient to doctor.

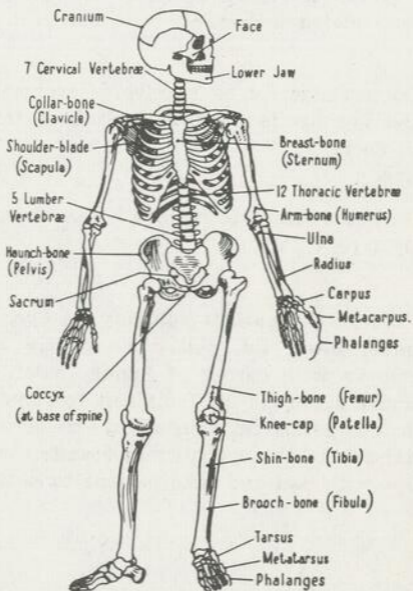
FOREIGN BODY IN EAR

Do not attempt to remove—take the patient to a doctor.

FOREIGN BODY IN EYE

Prevent the patient rubbing the eye. If under lower lid, pull down gently and remove with corner of handkerchief. If under upper lid or if difficult to remove, do not persist in your efforts as serious damage to the eyeball may result. Cover eye with pad and take patient to doctor.

THE HUMAN SKELETON



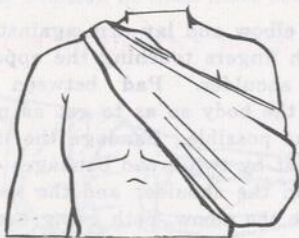
FRACTURES

GENERAL RULES

Any injury to a bone or joint should be treated as a fracture unless proved otherwise by a doctor with X-Rays. Attend to injury on the spot. Render limb immobile with splints, etc.

If the ends of broken bone stick through the skin, control bleeding, apply sterile dressing and immobilize with splints. Remove patient to a doctor or hospital as soon as possible.

FRACTURE OF THE COLLAR BONE



Support in a sling the arm on the injured side. If both collar bones are broken cross the arms across the chest and apply a broad bandage around the body to include both forearms.

FRACTURE OF ANY BONE OF THE UPPER ARM

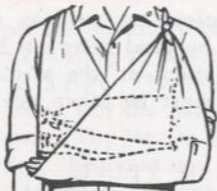


Bend the elbow and lay arm against the chest with fingers touching the opposite side of shoulder. Pad between the limb and the body so as to get as much comfort as possible. Bandage the limbs to the chest by two broad bandages—the first up on the shoulder and the second just above the elbow, both going around the chest under the opposite arm.

FRACTURE OF JAW

First Aid splinting is impractical and unnecessary. The injured person should be taken to a doctor or dentist.

FRACTURE OF RIBS



Apply two broad bandages around the chest and tie firmly when the patient has breathed out as far as possible. These two broad bandages should be tied on the opposite side of the injury. Use an arm sling. Transport the patient to hospital in the position he finds most comfortable.

FRACTURE OF ANY BONE OF THE LEG



Gently place the broken limb into line with the other but stop if severe pain is caused. Pad well and immobilize by bandaging to the unbroken leg or to a well-padded splint covering length of lower limbs.

FRACTURE OF THE SPINE

Move the patient as little as possible; transport to hospital lying on his back. In placing patient on the stretcher the utmost care must be taken not to bend the spine.

FRACTURE OF PELVIS

Lay the casualty in the position which gives the most comfort. This should be preferably on his back with the knees straight. If he wishes to bend his knees slightly, they should be supported on a blanket.

HANGING

There is always the chance that life still exists. Do not wait for the police. Grasp and lift the patient, cut the rope and apply artificial respiration. Send for doctor.

HEADACHES

Headaches should never be treated by First Aid worker. They may be caused by serious disease. Patient should be referred to a doctor.

HEAT STROKE AND SUN STROKE

Undue heat and humidity interfere with the natural cooling of the body by evaporation of sweat. The temperature of the body rises and the patient may lose consciousness. The face is livid, the skin hot and dry, the breathing is deep and noisy, the temperature very high. Place patient in a cool shady spot, remove clothing and sponge the body with cold water until his temperature comes down. When consciousness returns remove the patient to hospital for observation. The patient may have as much water to drink as he wishes.

HICCUPS

Have the patient draw a deep breath and hold it to cover the time when the next hiccup should occur. Success may require this manoeuvre to be repeated several times.

POISONING

Send for doctor or remove patient to hospital immediately. Give artificial respiration if breathing not discernible. Retain for inspection any bottles or other evidence of the nature of the poison.

METHODS OF CARRYING INJURED PERSONS

If one bearer



PICK-A-BACK



HUMAN CRUTCH



CRADLE

If two or more bearers



3 HANDED



2 HANDED

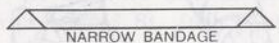
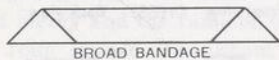
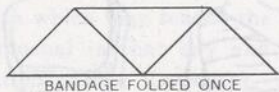


4 HANDED



FORE & AFT

TRIANGLE BANDAGE



REEF KNOT



GRANNY KNOT

BANDAGES

HEAD



SHOULDER



Front view

CHEST



Back view



KNEE



FOOT



HIP



HAND



ELBOW

WHAT IS THE ORIGIN OF ST. JOHN AMBULANCE?

St. John's tradition of service goes back to the Crusades. When Jerusalem was captured by the Crusaders in 1099 many of the Christian soldiers were nursed in an ancient hospice by a group of men known as the Brothers of St. John of Jerusalem. The care and devotion with which they tended the wounded were unusual in that day and won the admiration of the Crusaders. Many of the knights joined the Brothers in their work of mercy and the fame of the Order of St. John spread throughout Europe. It grew in numbers and influence. Today's members of St. John continue the same great tradition of care for the sick and wounded.

Throughout the Commonwealth St. John is active—"the sun never sets on the white cross of St. John". In Canada St. John has been active since 1883. First Aid and Home Nursing training are available in 800 communities from coast to coast and over 100,000 persons are trained a year.

HOW TO TAKE A COURSE IN FIRST AID OR HOME NURSING

FIRST AID

With a knowledge of First Aid you know what to do in emergencies. If someone is injured in an accident you can provide aid until the doctor comes—prevent injuries from becoming more serious—perhaps save a life. The things you learn in a St. John First Aid course are useful all your life.

A First Aid course requires a minimum of seven instructional periods of 1½-2 hours each. Upon successfully completing the course you receive a St. John First Aid Certificate.

HOME NURSING

Sickness comes to every family at some time or other. The St. John Home Nursing course prepares you to care for your own family and for voluntary service. It is invaluable training for everyone—both women and men—and includes instruction in the care of children and of the aged.

A Home Nursing course requires a minimum of 12 instructional periods of two hours each. Upon successfully completing the course you receive a St. John Home Nursing Certificate.

JUNIOR COURSES

Junior (Preliminary) courses in both First Aid and Home Nursing are provided for those under 15 years.

WHERE TO REGISTER

St. John Ambulance provides courses in First Aid and Home Nursing in more than 800 communities across Canada. You may join a class — or a class may be arranged for an organization to which you belong — church group, service club, etc. When charges are made, they are nominal and include a text book and bandage. Enquire from your local St. John Ambulance Branch about these courses or write your St. John Ambulance provincial headquarters listed on the back page.

HOW TO JOIN THE ST. JOHN AMBULANCE BRIGADE

Members of St. John Ambulance Brigade are volunteers who wish to give service to others, using their First Aid or Home Nursing training.

Membership in the Brigade provides an interesting form of voluntary service —and prepares you to be of assistance to

your community and country in time of major emergency or disaster.

IF YOU ARE A MAN you will be attached to an Ambulance Division. You will receive further training in First Aid. Duties include transport of the sick and injured, attendance at sporting events, exhibitions and other places where crowds may lead to accident or illness. In addition there are many other opportunities for service in related fields.

IF YOU ARE A WOMAN you will be attached to a Nursing Division. You will receive further training in First Aid, Home Nursing, Child Welfare and related subjects. There is a great variety of service available, including duty at First Aid posts, voluntary nursing assistance in hospitals, clinics and convalescent homes, with the aged, with children, the handicapped and chronically ill.

IF YOU ARE A BOY OR A GIRL of 11 years or older you may join the Cadet Branch.

QUALIFICATION FOR MEMBERSHIP
Most important of all is a desire to serve, combined with the ability to work together with others. There is no restriction in respect of race or creed. To

join the Brigade you must hold a recently gained First Aid Certificate. Your local St. John organization will be glad to arrange classes for you so you may qualify. Other requirements for adult membership are a minimum age of 17, good character, suitable physique, and acceptability in all respects.

REQUIREMENTS FOR MEMBERSHIP

There are certain minimum requirements. You will be expected to attend at least 12 instructional meetings a year and also give voluntary service to the community. (Members of their own accord usually attend many more than 12 meetings and you will have to decide, depending on your own circumstances, how much time you can give to St. John.) Members are also required to pass re-examination each year in First Aid, and in the case of women, in Home Nursing as well.

Divisions maintain their efficiency through regular instruction and service. They are ready to help in time of emergency or disaster. Members are accustomed to working with others and thus up-to-date in their training.

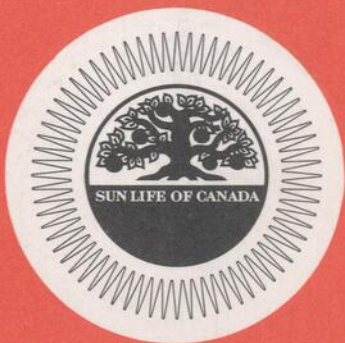
ST. JOHN AMBULANCE PROVINCIAL COUNCILS

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- Nova Scotia 452 Barrington St.,
Halifax, N.S.
- New Brunswick 27 Prince William St.,
Saint John, N.B.
- Quebec 3489 Drummond St.,
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The Values in Education Series
is issued as a public service by
SUN LIFE ASSURANCE COMPANY OF CANADA
Head Office : Montreal

*Additional copies may be obtained from any office
of the Company in Canada or from 218,
Sun Life Building, Montreal, Que.*





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