

## FIRST AID

### (Grades X and XII)

The Course of Instruction is that laid down by the St. John Ambulance Association. A 294-page handbook of the Association presents the instructional material in as brief form as possible. It has, therefore, been considered inadvisable to attempt any further abridgment. The material presented in this chapter takes the form of supplementary information, memory codes, or suggested practice exercises, which along with certain reference sources, should make the course a good deal more profitable to the student.

### PRINCIPLES OF FIRST AID.

It is almost as important to know what not to do in an emergency as it is to know what to do. How often, on a football field, we see the well-meaning team-mates of an unconscious player, rush over to him and without analyzing his injury begin to pump his legs up and down, oblivious of the harm that might result if he had a broken bone. In the same way, the first reaction of the crowd at an accident is to pick up the victim and rush him to a drug store. As a result of these and other characteristic blunders, many doctors are prejudiced against first aid instruction. They have seen so much irreparable harm done by half-trained individuals that they would have all emergencies treated by doctors only. In normal times where doctors are readily available there might be something in favour of this attitude, but in a country like this, with accidents happening all the time in our vast vacation land, and especially in war time, it will be increasingly difficult to get medical aid in time to save life and

suffering for all the emergencies that must arise. Nonetheless, we should be impressed with the importance of learning both what to do and what not to do. The handbook tells us that the object of first aid treatment is:—

1. To preserve life.
2. To promote recovery.
3. To prevent aggravation of the injury until the arrival of the doctor or during transport.

It is the duty of the First-Aider to summon medical assistance as soon as possible and to surrender the patient to him immediately on his arrival. After treatment does not come within the scope of first aid.

The "Readers Digest" for March, 1942, contains an excellent article on this topic entitled "Trained First Aid—or none at all."

For convenience in discussion, the student should know the difference between:

**Signs.**—Things which the First Aider discovers for himself by:



*Seeing*—e.g., deformity of dislocation.



*Hearing*—e.g., the grating of broken bones.



*Smelling*—e.g., alcohol on breath of patient.



*Feeling*—e.g., swelling of a bruise.

**Symptoms.**—These are discovered by questioning the patient about his feelings e.g., pain, giddiness, numbness, etc. (Less reliable than signs).

**History.**—This is obtained by questioning the witnesses (including the patient) about the circumstances surrounding the accident, e.g. automobile collision, falling from ladder, etc.

It is easy to give a long list of directions to instruct the First-Aider how to behave in an emergency. The difficult thing is to get a realistic picture in advance of the things that are apt to happen and reduce our actions to an habitual routine that can be learned in advance. For instance, in our classes we will learn chapter by chapter how to deal with different individual types of accidents, but in war time we are apt to be confronted with several different types of accident all at once. This requires not only a cool head and quick fingers, but good judgment to know which to tackle first and how far to proceed before turning one's attention to another victim.

In general it may be said that the First-Aider's most likely opportunity to save life will occur in either:

1. Checking serious bleeding.
2. Applying artificial respiration.

Two suggestions are offered as an aid to the visualization of emergencies:

1. Read Chapter I of the Canadian Red Cross booklet *Emergencies in War* entitled "Psychology of Emergencies". Particular attention should be given to the following topics, which are dealt with in far greater detail than would be possible in a book of this kind:

Fear as an instrument of war.

Psychology of the Civilian Population in war time.

Civilian Activity in war time.

Public Health in war time.

Fear in Civilian Accidents—Mental attitude of Victim.

Fear in Civilian Accidents—Mental attitudes of Bystanders.

Fear in Civilian Accidents—Mental attitude of First Aider.

The questions at the end of the chapter are particularly pertinent.

2. Although at this stage the student is not yet equipped with knowledge of the proper technique for dealing with specific First Aid Cases, nevertheless he should receive some practice in the practical application of the Principles of First Aid. Typical cases, or combinations of cases, should be conjured up for him to render snap decisions upon. The questions may be presented as

simple oral posers or may be dramatized for psychological effect. Game situations could be devised which would put the pressure on the First Aiders to render an instant judgment of what to do first. As they become more skilled the incidents can be complicated. Students should vie with one another to invent situations to "stump" the other team. An excellent technique has been devised by the A.R.P. for playing realistic games of this sort, which could easily be adapted to First Aid situations. It is called "Tactical Training in A.R.P. for Wardens and other civil Defence Services" by S. Evelyn Thomas. (It may be obtained from Wm. Dawson Subscription Service Ltd., 70 King St. East, Toronto.) At this stage students cannot be expected to describe the treatment to be followed, but merely the order of importance, method of removing clothing, advisability of employing stimulants, transportation, etc. The method should be continued, however, as these techniques are acquired, so that the Principles of First Aid will be constantly applied.

### SHOCK

The average First-Aider is apt to discount the importance of Shock. It cannot be too often emphasized that every accident causes some degree of shock. This may vary from a slight degree of faintness to complete collapse, unconsciousness, and even death. Most of us have experienced that mild form of shock which comes when you smash your finger with a hammer. You break out in a cold sweat, the pulse quickens, and you want to hang on to something to keep from fainting. The explanation of this phenomena is that the vital centres controlling blood pressure, have become paralyzed by the violence of

the injury and the nervous system has lost its normal control of the blood vessels. As a result the capillaries dilate and there is a sudden drop in blood pressure. The blood stagnates and the heart is not filled each time it pumps. The condition may be recognized by the following signs and symptoms:

1. Colour—pale and slatey with blue lips in contrast to the waxy whiteness of haemorrhage victims.
2. Cold sweat-breaks out in drops on the forehead.
3. Listless or unconscious. Does not seem to care.
4. Pulse—rapid and feeble.
5. Breathing—shallow.
6. Temperature—will be subnormal.
7. Eyes—give vacant expression.
8. Skin—is cold and clammy.

#### Treatment:

1. Treat haemorrhage first, if serious.
2. Apply warmth to bring back normal temperature.
3. Restore mental confidence. Talk reassuringly in quiet tones.
4. Quiet should be obtained if at all possible.
5. Test ability to swallow with teaspoonful of hot water. Then use stimulants like hot tea or coffee, aromatic spirits of ammonia. Avoid alcohol. It causes further dilation of bloodvessels.
6. Head down position. Pillows under feet, body flat on ground.
7. No unnecessary moving or handling.

### DRESSINGS AND BANDAGES.

Advantages of the Reef Knot for securing bandages:

1. It lies flatter than the Granny Knot, thus making a more comfortable and less unsightly bandage.
2. On the arrival of the doctor, he will likely wish to remove the First-Aiders bandage, either to judge the effectiveness of the First-Aid Treatment, or for further attention. The Reef Knot is easier for him to untie. This saves time and discomfort to the patient.

3. The Reef Knot is less likely to come undone accidentally than the Granny.

An easy method of learning to tie the Reef Knot:

So that you may follow the instructions easily, colour one end of your bandage with red chalk. Suppose you practice tying the bandage around your own upper leg, just above the knee. The first half of the knot is the same whether you are going to tie a Reef Knot or a Granny Knot. Pass the bandage under the leg so that the red end is in your right hand. Bring the ends of the bandage up over your leg; cross the red end over the white, pass it underneath the white and pull tight in a half-knot—just as if you were going to tie a parcel. Now comes the difference. Hold the red end in your left hand and the white end in your right. With your right hand, place the white end across the leg over the part of the bandage that is already tied. In this position the red end will be behind the white end. Now, with your left hand, pass the red end over the white, back underneath the loose white end and pull tight. This completes the reef knot. Teaching Jingle: "Red over white, then white under red."

To test the Reef Knot, to make sure it is not a "Granny".—By loosening the knot slightly, you should be able to trace the tying. If it is done properly the red end will emerge from the knot on the same side as it went in, and the knot will lie flat. "In a "Granny" the red end will emerge at right angles and the knot won't lie flat.

The American Red Cross teach this method by tying two contrasting neck-ties together in order to secure ends of different colours. Opposite p. 35 of their text book they give a full page illustration of the three stages in tying this knot. (Fig. 14).

## FRACTURES.

Doctors like to have their little jokes. One of their pleasantries is to ask the unsuspecting layman "What is the difference between a fracture and a break?" The correct answer is "no difference". The word "fracture" is derived from a latin word meaning a break.

An easy way of remembering the General Signs and Symptoms of Fractures:

Picture a skiing accident. The victim loses control of his speed and is SPILLED, sustaining a fracture. Each letter in the phonetic spelling of the word SPILD gives us a separate sign or symptom to investigate.

"S"—	suggests investigation for "swelling".
"P"—	" " " " "pain"
"I"—	" " " " "Irregularity of the bone."
"L"—	" " " " "loss of power in the limb."
"D"—	" " " " "deformity of the limb."

In addition to the above five (which are the only ones to be sought after by the First-Aider) in some cases YOU SEE two others. Again we use the phonetic letters "U.C" as memory tags for what YOU SEE.

"U"—	indicates "unnatural mobility".
"C"—	" " "crepitus" or "grating of the bones".

It should be emphasized that while the above two may be observed, they should be sought for only by a physician. They will not be present in greenstick or impacted fractures.

## DISLOCATIONS.

The memory tag used for recalling the signs and symptoms of fractures may be applied to dislocations by merely substituting "Fixity of Joint" for "Irregularity of Bone".

## WOUNDS AND HEMORRHAGES.

## Local Signs of Haemorrhage:

1. From an artery: crimson blood issues in forceful spurts.
2. From a vein: dark-coloured blood flows slowly and steadily.
3. From capillaries: blood oozes rather than flows.
4. From a varicose vein: persistent forceful flow of dark coloured blood. The blood is darker than from a normal vein and more forceful often than from an artery, but it does not come in spurts.

## General Signs of Haemorrhage:

1. Pallor—because capillaries in skin are emptied.
2. Waxy whiteness of skin—even in the lips.
3. Dizziness and faintness—due to lack of blood reaching the brain.
4. Pulse will be rapid and feeble (often over 100 per minute).

## General Care:

1. Treat the patient in a flat position, with the head lower than the feet if possible.
2. Open windows. Loss of blood means loss of oxygen.

## Local Care:

1. Elevate the limb.
2. Apply direct pressure on the wound, preferably with gauze between the wound and the fingers, but do not lose valuable time applying pressure because sterile materials are not at hand. **THIS IS THE FIRST**

AND MOST IMPORTANT THING TO DO. It is the first-aiders most likely chance of saving life and should never be forsaken for more complicated or more spectacular measures. Only after this has been done should consideration be given to tourniquets or digital pressure at other points. The beginner will be amazed at the efficiency with which even the largest haemorrhages may be stopped by direct pressure on the wound.

3. A skilful First Aider may reduce further flow of blood by using pressure or a tourniquet on the pressure point applicable to the wound. These pressure points cannot be learned too thoroughly. The First-Aider should practice sustaining pressure on different pressure points. The effectiveness of the pressure may be tested in various ways, e.g., by feeling the pulse when applied to the brachial artery or by the sensations of the patient.
4. First-Aiders should be warned of the limitations of the Tourniquet.
  - (a). It must never be applied below the knee or the elbow. Here the arteries run between two bones. The tourniquet would first have to crush the bones before it could compress the artery.
  - (b). Unless it is painfully tight, it is worse than useless, for it will prevent the return of venous blood (Veins lie near the surface) without compressing the artery. One should be deaf to entreaties to loosen the tourniquet.
  - (c). It must be loosened every 15 minutes and then applied again, otherwise oxygen is denied to the tissues and gangrene sets in, which may necessitate amputation of the limb. The most useful application of the tourniquet is to enable the First-Aider to stop the haemorrhages of one person while he turns his attention to other victims. There is a danger in this procedure of patients being picked up by stretcher

squads and transported elsewhere by persons who are unaware that the victim has a tourniquet applied under the covering blanket. To offset this danger the British have devised the plan of marking a large "T" with lipstick, car grease, soot, etc., on the victim's forehead or collar. They also add the time the tourniquet was applied, e.g., "T-7.30".

5. Never use direct pressure on a skull wound, you may force pieces of broken skull into the brain.

#### INSENSIBILITY.

A table to assist in recalling the common causes of unconsciousness. Code letters: C.A.S.F.

*Pallid skin.*

*Flushed skin.*

Concussion (immediate stupor)	←C→	Compression (signs delayed)
Asphyxia from drowning	←A→	Alcohol and other poisons
“ “ poison gas		
“ “ electric shock		
“ “ strangulation		
Shock	←S→	Stroke (Apoplexy, Sun, Heat)
Fainting	←F→	Fits (Epilepsy, Hysteria)

In regards to Artificial Respiration, recognition should perhaps be made of the fact that there are two schools of thought as to the proper method of applying the Schaefer Method. The method to be followed by those taking the St. Johns Ambulance Course is the original method. Certain local improvements have been instituted by the Ontario Hydro Electrical Power Commission for training its employees, which have obtained wide acceptance in this province and are approved by the Ontario Branch

of the Royal Life Saving Society. As many students will be aware of the differences, it is perhaps just as well to recognize their existence. Briefly the differences are these:

*St. John Ambulance advocates:*

- Kneeling position beside the patient.
- Hands kept in contact with patient's back.

*Hydro advocates:*

- Kneeling position astride the patient.
- Hands completely removed from patient's back to induce a sudden inrush of air.

Since the differences are minor ones, there is little point in taking sides in the controversy. A clear recognition of these differences, however, will prevent confusion. Students who are trying St. John Ambulance examinations, should, of course, adhere to that method during the examination and the preparation for it.

It should be remembered that Artificial Respiration, along with the Arresting of Haemorrhage, provide the two most likely opportunities for the First Aider to save life. Continual practice to make the technique automatic is most important. Linemen of the Ontario Hydro Electric Commission practise constantly and are inspected monthly on their efficiency. They have the best record in the world for saving life by artificial respiration. One of their number was restored to life after eight hours of artificial respiration. If they need practice, how much more so must the layman require it!

*Two "Don'ts" for handling unconscious persons:*

1. Don't try to bring them to by shaking. They may have head injuries. Let them lie, e.g., Fritz Kreisler,

the famous violinist, was found lying in the ditch by bystanders—victim of an automobile collision. They propped him up against a hydrant. Later it developed that he had a concussion of the brain. The well-meant intentions of the untrained first-aiders cost him an extra month in hospital and prejudiced his chances of recovery.

2. Don't try to make them swallow anything. In unconsciousness they lose the ability to swallow and may choke to death, through the liquids being diverted into the windpipe.

*Reference:* First Aid and Resuscitation in Electric Shock—A Manual of Standard Practice for Employees—Electrical Employers Association of Ontario, Toronto.

### BURNS.

Since prevention is better than cure, the information in the St. John Handbook could well be supplemented with some well-recognized rules for preventing fires and scalding. The commonest preventable fire hazards are listed below:

1. Using gasoline for cleaning purposes. Friction causes it to ignite.
2. Amateur electrical instalations and repairs. Unsoldered joints and loose connections cause short-circuits. These result in stubborn blazes inside the partitions.
3. Bonfires started and left to die out. Careless vacationists annually cause more timber to be lost by fire than we export.
4. Starting fires with coal oil.
5. Smouldering cigarette butts.
6. Christmas tree candles (non-electrical).

7. Unscreened fire-places.
8. Window curtains blowing too near a stove.
9. Grease, used in cooking, catching fire.
10. Pot handles extending over the edge of a stove may be clutched by children or pulled over by some one brushing by the stove
11. Matches in improper containers where rodents may chew them or left where children may play with them.

### HOW TO ESCAPE FROM A BURNING BUILDING.

1. Keep your head. In the panic of the moment people often do the very worst things. It is a matter of common knowledge among fire-fighters that people are frequently found dead in fire-gutted houses with a burn on their heads.
2. In planning your escape bear the following points in mind:
  - (a). Before opening a door, put your hand on it to see if it is hot. This may save your life. If there is a fire on the other side of the door, the air may be super-heated. Inhaling such air is apt to be fatal.
  - (b). Remember that stairways and communicating halls furnish a splendid central draft for the fire.
  - (c). Keep as close to the floor as possible. Heat and smoke rise.
  - (d). Do not jump wildly from windows. Attract the attention of onlookers. Wait till they bring a ladder. Failing this try to improvise a rope from bed sheets, clothing, etc. If this is out of the question, lower yourself as far as possible before letting go.

## ENTERING A BURNING HOUSE.

In normal times, as a general rule, it is better to leave the task of rescuing persons and their belongings to professional firemen. All too often the tragedy is increased by the death or serious injury of the amateur fireman. If, however, civilian rescue is imperative, keep the following facts in mind:

1. Keep close to the floor where the air is cooler and the smoke less dense.
2. A saturated handkerchief tied over the face is useful in filtering out smoke. However, don't imagine that this is a satisfactory substitute for a gas mask. In the presence of illuminating gas, automobile fumes, poison gas, etc., only those equipped with proper respirators should attempt rescue work. It should also be borne in mind that certain commercial fire extinguishers release poisonous gases in their normal operation.
3. Removal of the patient: Tie his wrists together with a bandage or handkerchief. Place him on his back. Insert your head between his arms, so that his wrists engage your neck. Now crawl towards the fresh air or exit. (This method is called "The Morgan Carry" or "Low Seam Drag".

## TREATMENT OF BURNS.

1. Do not break blisters.
2. Small burn treatment: Exclude air by means of some greasy lotion. Avoid frequent dressings, which increase the opportunity for infection.
3. Large burn treatment: Any burn over 3 inches across is considered serious.
  - (a). If prompt medical aid can be secured, merely exclude air by covering with cotton wool and bandaging lightly. Treat for shock. Give fluids. NEVER APPLY OILY DRESSINGS TO LARGE BURNS. They interfere with the Tannic Acid Treatment.

- (b). If medical aid cannot be secured promptly:
  1. Remove clothing around burned area. Do not remove any material that adheres to the burn.
  2. Don't break blisters. While preparing dressings keep under water at body temperature, to exclude air.
  3. Dressings:
    - (a) *Tannic Acid.*  
2 teaspoons of Tannic Acid in a cup of water.  
Continuous application is required until skin turns brown.  
This may be done by an atomizer spray or by keeping the gauze dressings saturated day and night, every half hour for about 48 hours.
    - (b) *Bicarbonate of soda.* (ordinary baking soda).  
1 dessert spoonful of bicarbonate of soda to a pint of water (warm). This makes a soothing solution and will also help soak off any clothing which adheres to the wound, but it is not as effective as Tannic Acid.
    - (c) *Tea.*  
When strong tea is boiled instead of being merely steeped, it provides a 3% solution of Tannic Acid. This is used in the same way as the Tannic Acid solution given above, but the tanning process will take longer, as the solution is weaker.
4. Keep the patient warm. In the hospital treatment so much emphasis is placed upon this factor that a tent of blankets is erected over the burned part and heat maintained by powerful electric light bulbs placed inside the tent.

## DEMONSTRATIONS.

While it is true that most demonstrations of First Aid are planned to acquaint the public with the work being taught, it is the common experience of the performers (even the subjects) that the preparation for the "show" served to crystallize their studies as nothing else could have done. For this reason alone every class should have a demonstration, and plans for its success should be begun with the very first lecture. A healthy competitive spirit can be built up within the class if it is understood from the outset that the most skilful operators will be selected for the demonstration and the others will have to content themselves with serving as supernumeraries or subjects. The actual selection of the First-Aiders should be left as long as possible, consistent with good preparation.

The value of the demonstration to the First Aider is that he is called upon to react to conditions which he sees with his own eyes rather than to conditions which he must imagine for himself. He is also spurred on by the knowledge that critical eyes are watching him and he must do well to earn public approval.

The best experience is obtained in rehearsals. As suggested before, every chapter provides additional material for realistic exercises, which should be undertaken in the mood of rehearsal for the demonstration, e.g., let a group designated as operators leave the room while the rest of the class make suggestions for setting the stage. It is previously understood that all casualties will be found lying down when they return to the room, whether the nature of their injuries calls for a prostrate position or not. The rest of the class act as bystanders and when we say "act" we mean "act". i.e., they may be questioned re-

garding the "history" of the accident. They may be sent to secure medical assistance, bring blankets, hot water bottles, etc. Some of them may play the part of "difficult" bystanders, who crowd around the patient and offer bad advice from the fund of medical heresies. The teacher will act as a referee to see that the proper degree of realism is observed here, i.e., that only a few of the bystanders are troublesome and that they respond normally to authoritative action on the part of the First-Aider. Various devices may be used to indicate the nature of the injuries:

1. Details of the injuries may be pinned on their clothing.
2. If conscious, they may tell the operators what is the matter with them.
3. Realistic codes may be devised, e.g., a bone tied over the patient's shin would indicate a fractured Tibia. Lipstick smeared on the forehead would suggest a deep cut.

Casualties with minor injuries, which would permit them to stand or sit up, remain lying down until the operator begins to attend to them, when they assume their normal positions. In this way all casualties may be distinguished from bystanders by their initial prostrate position.

Classes that are drilled regularly on realistic exercises of this sort adapt themselves readily to more formal demonstrations, because they have accustomed themselves to the harder task of working out the solution to the problem without advance notice. The games also provide a good schooling in showmanship. In devising problems for one another and setting the stage they have become critical judges of realistic atmosphere. Such classes will

require very little assistance in setting up a demonstration. The chief difference between their realistic class exercises and the demonstration will be the spectators' point of vantage, eg., the technique of removing a splinter could be observed by the bystanders in a class exercise, but it would be a poor subject for a demonstration. Students should compete for the privilege of acting as master of ceremonies. See which student can produce the best script, describing the purpose of the demonstration, the nature of the injuries and essential features of the treatment, which might be overlooked by the spectators. Voice tests could then be arranged, over the loud speaker, to see which student can read the script so that it can be heard in all parts of the auditorium with the most pleasing effect.

The students should be able to devise most of the sound effects and staging for themselves. A difficulty common to demonstrations given as part of a Physical Education Display, is the lack of a curtain. This may be surmounted by simulating air-raid conditions. The stage is set with a number of casualties during the blackout, meantime the audience is instructed of the nature of the demonstration over the public address system. When the lights go up the scene must be completely set and all operators standing smartly at "attention". Needless to say, to set the stage quickly in the dark requires considerable practice and nice direction. The same procedure may be used to clear the stage after the number, if desired, or the casualties may be removed by stretcher or other carries and the properties cleared by stage hands.

If a coeducational feature is desired, the boys can do the First Aid and transport the patients to a Dressing Station where girls from the Home Nursing Classes can render supplementary treatment.

### Information regarding the examinations of the St. Johns Ambulance Association.

Candidates are classified according to age:

Juniors must be under 16 years of age.

Seniors are those 16 years of age or over.

Seniors and Juniors receive the same course of instruction, which calls for an attendance of at least 12 hours. Half of this time is devoted to theory and half to practice. (See outline of lectures, p. 4 St. John Handbook) Seniors are expected to attain a higher degree of excellence in their examinations. They must obtain 72 marks out of a possible 120—Juniors 50 marks. The society recognizes the importance of refresher courses in first aid, by providing for yearly re-examinations. After obtaining the Senior Certificate a candidate may try for higher awards. In four months' time he may try his "Voucher"; four months hence his "Medallion", after another 4 months his "Label". The last mentioned examination may be tried every year. Medallions cost 85c. and the bars for each label 20c.

#### *Examination Fees:*

\$5.00 for any group under 30 persons.

\$10.00 for any group of 30 persons or over.

#### *Address correspondence to:*

Mr. J. B. Wallace, Secretary, 863 Bay St., Toronto 5.

#### *Conduct of the examination:*

Candidates should be prepared for:

- 1 question on dressing wounds and bandaging.
- 1 " on fractures.
- 1 " on bleeding.
- 1 " on artificial respiration.

2 miscellaneous questions on such things as bites, burns or poisons. The questions may be given on a written paper, but the usual custom is to ask them orally while the candidate is demonstrating his practical skill. 70% of the mark is based on the practical work.

In a general way Seniors are expected to know more theory than Juniors, e.g., a Junior might not be marked down for forgetting that the collar bone is also called the clavicle. A review table of the questions that may be asked of Juniors and Seniors is given below:—

**A Review Table of questions that may be asked in examination for St. Johns Ambulance Certificates.  
Junior and Senior.**

<i>Fractures</i>	<i>Triangular Bandage</i>	<i>Hemorrhage</i>
Leg	Head	Digital pressure applied to above to stop Bleeding
Forearm	Hip	Facial
Jaw	Chest	Artery of thigh
Thigh Bone	Hand	Temporal
Crushed Hand	Foot	Artery of Arm
Collar Bone	Knee	Varicose Veins
Knee Cap	Elbow	Lips or Cheek
Ribs	Shoulder	
Thigh (Sr.)	Lower Jaw (Sr.)	<i>Artery Behind Collar Bone</i>
Humerus (Shaft) (Sr.)	Arm Slings	
Arm at Shoulder (Sr.)		<i>Seniors</i>
Finger (Sr.)		Bleeding from Lungs
Pelvis (Sr.)		Carotid artery
Ribs, Int. Hemorrhage		Radial and Ulna from palm
Two Handed Seats		From Auxillary
Schafer's Artificial Respiration		Subclavian
Arm Bone		Brachial
		Femoral
		From Foot

## MISCELLANEOUS QUESTIONS.

*Juniors*

1. Wounds bleeding severely.
2. Bite by rabid animal or snake.
3. Shock and collapse.
4. Compound fracture.
5. What are Varicose veins?
6. How to improvise splints.
7. Splints.
8. Bruises.
9. Dislocation.
10. Wounds.
11. Treatment of suffocation.
12. General rules treatment of wounds.
13. Suffocation by smoke or gas.
14. Suffocation by hot water.
15. Wounds bleeding slightly.
16. General rule, treatment of insensibility.
17. General treatment of fractures.
18. Fracture of spine.
19. Dislocation.
20. Varieties of fracture.
21. How to improvise stretcher.
22. Grit in eye.
23. Women's dress on fire.
24. Pressure points.
25. Poisoned wounds.
26. Sunstroke.
27. Stimulants.
28. Choking.
29. Insect stings.
30. Scalds and burns.
31. Treatment of spine.
32. How to improvise tourniquet.
33. Fracture of spine.
34. Complicated fracture.
35. Sign of fracture.
36. Treat burn by Vitrol.

*Seniors*

1. Shock, fainting, collapse.
2. Asphyxia.
3. Stimulants.
4. Arterial hemorrhage.
5. Venous hemorrhage.
6. Convulsions in children.
7. Rupture.
8. Epilepsy.
9. Fish hook in hand.
10. Apoplexy.
11. Concussion of brain.
12. Examination of unconscious person.
13. Scald and burns.
14. Signs of fracture.
15. Hemorrhage from internal organ.
16. Compression of brain.
17. Improvised arm slings.
18. Complicated arm fractures.
19. Treatment wound in abdomen.
20. Treatment by hanging.
21. Treatment injury to a joint.
22. General rules treatment poisoning.
23. Poisoning by bad food.
24. Treatment burn by rosive.
25. Treatment of suffocation.
26. Swelling tissue of throat.
27. Hysteria.
28. Poisoning by alcohol.
29. Poisoning by Narcotic.
30. Foreign body in eye nose.

*All pupils preparing for a Junior or Senior St. John Ambulance Certificate should make sure that they have a good knowledge of the above questions, especially fractures, bandages, pressure points and artificial respiration.*

*Use common sense and remember that the First Aider's work finishes when the doctor arrives.*

## VISUAL AIDS FOR TEACHING FIRST AID.

Silent 16 mm Moving Picture Films:

*First Aid—Care of Minor Wounds*— $\frac{1}{4}$  reel—\$6. Stress the importance of immediate care for even the slightest wound. Demonstrates in detail the proper method of applying sterile dressings.

*First Aid—Carrying the Injured*—Demonstrates the making and using of stretchers in emergencies, and the methods of carrying injured persons without stretchers— $\frac{1}{4}$  reel—\$6.

*First Aid—Control of Bleeding*— $\frac{3}{4}$  reel—\$18. By means of animated drawings shows the accepted methods of controlling bleeding in various parts of the body. The best way to teach pressure points.

*First Aid—Life Saving and Resuscitation*—1 reel—\$24. Demonstrations in water and in slow motion photography of American Red Cross methods of Life Saving, grips and releases, and artificial resuscitation. There is considerable divergence in the technique used by the American Red Cross, the Royal Life Saving Society and the St. John Ambulance Association. However, the film makes an interesting contribution to the subject.

The above films, along with an interesting series on Home Nursing, belong to the Eastman Teaching Films Inc., Rochester, New York, but may be rented from local firms.

There are any number of excellent films for teaching the chapter on "The Structure and Functions of the Body, e.g.

*The Human Skeleton*—2 $\frac{1}{2}$  reels—Price \$70. Rental \$4.

*The Human Skull*—2 $\frac{1}{2}$  reels—Price \$70. Rental \$4.

*The Respiratory System*—Price \$28. Rental \$1.50.

*The Blood Vessels*—Price \$28. Rental \$1.50.

*How We Breathe*—Price \$16. Rental \$1.00.

*The Heart and How It Works*—Rental \$1.50.

*The Mechanism of Breathing* (Sound)—1 reel. (An excellent film, which includes artificial respiration).

Filmstrips (for 35mm filmstrip projectors, such as are used for projecting amateur coloured pictures).

*Man and His Body* (Muir)—Part I—Bones, Muscles, Digestion, Heart and Lungs, \$2.25.

Part II—Circulation, Nervous Systems, Eye and Ear, \$2.25.

Price if both are purchased together, \$4. (Manuals included).

*Bones and Muscles* (Spencer), \$2.

*Blood and Its Circulation* (Spencer), \$2.

*How We Breathe* (Bray-Eyegate).

Filmstrips of British origin (Visual Information Service).

*First Aid—Part I—Physiological Diagrams*. Intended for use with the British Red Cross Manual No. 1. \$1.

*Part II—Practical Work*. From a special series of photographs showing bandaging limbs, head and body, and correct methods of lifting and carrying injured persons. \$1.50. Manual, 50c.

*Work of the Red Cross Today*. Showing wide range of activities—motor ambulances, mobile x-rays, road patrols, camp hospitals, first aid in accidents, fire and gas poisoning, etc.

Local organizations selling and renting visual aids:

*The Screen and Sound Service Ltd.*, 156 King St. West, Toronto.

*The Ryerson Visual Instruction Service*, Ryerson Press, Toronto.

*Associated Screen News*, 100 Adelaide St. West, Toronto.

*The Royal Life Saving Society* have a new film on Land Drill and Artificial Respiration. Make application to the Ontario Branch Secretary, Mrs. J. M. Pretty, 206 St. Leonards Ave., Toronto. Free.

Charts for teaching First Aid:

St. John Ambulance Association—863 Bay St., Toronto—Set of 8 charts, \$15.

Large Single Life-Size Chart on Skeleton and Pressure Points—\$5.

First Aid Memory Chart—a summary of the course of lectures—30c.

Ingram & Bell, 256 McCaul St., Toronto—The Michel Chart 4½ ft. x 2 ft., \$4.50—a skeleton chart with pressure points indicated.

Macmillan Publishing Co., 70 Bond St., Toronto, The A. L. Physiology Charts, on heavy paper, approximately 3 ft. long. Probably the least expensive set of charts for teaching Health or First Aid. Set of 8, \$5.50. Individual charts, 75c. each. No. 1 Skeleton. No. 4 Circulation.

Rudolf Schick, Publisher, 99 Bedford Rd., Toronto. Set of 12 charts. The following First Aid Charts are in preparation, size 35" x 45", \$4.75.

First Aid in case of bleeding. First Aid in case of fractures. First Aid after drowning (Artificial Respiration). First Aid for gassed persons.

There are also two large charts for teaching structure and functions of the body.

1. The human body with all bones, muscles and the system of nerves.

2. The human body with all organs and the circulation of the blood.

Size 30" x 54". Price, \$6.50, mounted on linen with rollers. Available now.

Free First Aid Charts: with supplementary information:

Johnson & Johnson, Medical Supplies, Montreal—Chart for First Aid Instruction.

Elastoplast, Safety Supply Co., Hermant Building, Toronto 2. Chart for First Aid Instruction.

First Aid Supplies, procurable from St. John Ambulance Association, 863 Bay St., Toronto.

Stretcher, \$15. Junior Text Book, 20c. each. Senior Text Book, 55c. each. Pocket Guide to First Aid, 5c.

Set of Splints, \$3.50. A.R.P. Memory Chart, 15c. Home Nursing Memory Chart, 35c. Triangular bandages, 15c. each.