Air Raids

WHAT *YOU* SHOULD KNOW

WHAT *YOU* SHOULD DO

PRODUCED BY YOUR CIVILIAN DEFENCE COMMITTEE

YOUR Civilian Defence Committee is pleased to present you with this complimentary copy of its new booklet "WHAT YOU SHOULD KNOW AND WHAT YOU SHOULD DO". It contains vital facts concerning the safety of yourself and your family in the event of air raids, so we ask you to read it carefully, and keep it in a convenient place.

Many of your fellow citizens have voluntarily attended lecture courses and practice exercises that they may be better equipped to save the community in which you have your home. Your protection is their concern and willing co-operation with members of the Air Raid Precautions services will make this protection more certain and secure.

AIR RAID WARNING SIGNALS

ACTION WARNING	A fluctuating or intermittent signal lasting about five minutes. Indicates that an air raid may occur within a short time. If after dark—signal for blackouts.	Public Warning by SIREN
ALL CLEAR	Steady Signal, lasting about two minutes. Indicates "ALL CLEAR", that raiders have passed or threat of attack has been removed.	Public Warning by SIREN

CIVIL DEFENCE

Preparedness is the keynote of Civilian Defence. The enemy's blows may fall anywhere and no person should think that he is out of range. Therefore, everyone should know what the enemy is trying to do, what methods and what weapons he is using, and how to counter his attack. NOW is the time to get this information. Where the citizen has prepared for all eventualities, so far as he can, fear and panic are averted. It takes strength of character to survive an air raid, and the knowledge that everything that can be done has been done will enable people to stand by each other for mutual safety.

Your Civilian Defence Comittee has established an effective organization for dealing with air raids. But the efficiency of this organization depends in a large measure on the co-operation it receives from the general public and the extent to which each individual assists in helping himself. The Committee places this book in your hands for that reason. Here you will find described what the householder may do to protect his family and his neighbours. Studying it may be neither a pleasant nor an easy matter, but it is a small price to pay for preparedness. For preparedness will avert the loss of life and destruction of your property.

WAR ON CIVILIANS. War on the civil front usually develops along three main lines. These are:

1. High explosive attacks, which cause destruction, injury and loss of life.
2. Incendiary attacks, which cause multiple fires and disorganize essential civil services.
3. Gas attacks, which are not dealt with in this book, as the enemy has not yet used gas against civilians. Instructions as to countering gas attacks will be issued later.

From the householder's viewpoint, the attack which should attract first consideration is the incendiary attack by means of fire bombs. There cannot be too many people on the alert for the dropping of these fire bombs, nor too many persons competent to

handle them. Immediate attention must be given to these bombs after they have fallen to avert destructive fires as well as nullify the aid which such bombs give to the raiders in lighting up the target. A description of these bombs follows.

NEW INSTRUCTIONS ON HOW TO FIGHT FIRE BOMBS

According to the latest reports from Britain, the enemy is now making extensive use of several new types of incendiary bombs that are far more dangerous to deal with than any used in the past. Some of these contain powerful explosive charges which detonate on impact, while others are equipped with delayed action fuses so that they do not explode until some time after they fall. Some are of the ordinary magnesium type; others are filled with live phosphorus or a phosphorus-oil composition. These explosive incendiaries have no great demolishing power, but, like fragmentation bombs, they are designed to kill or wound.

These new types of fire bombs not only create new and greater hazards, making the work of those who may be called upon to fight them more difficult, but necessitate radical changes in the general tactics of defence against incendiary raids. Even more important, these bombs compel radical changes in the actual methods of dealing with all incendiaries, and the discarding of some previously effective methods now become dangerous because of the explosive menace.

The instructions given in this leaflet cancel all previous instructions on dealing with fire bombs. Read them carefully, study them, memorize them and practise them so you will be well prepared to carry them out if the necessity arises.

NEW ENEMY TACTICS. In an attempt to defeat well organized civilian defence and start a large number of major fires as quickly as possible, the enemy is not only using explosive bombs in conjunction with the ordinary type of incendiary but is employing new methods of attack. When conditions make it practicable, enemy raiders may fly at low altitudes and drop explosive and ordinary fire bombs in relatively large clusters. Or, if forced to attack from high altitudes, they drop containers, each filled with from 10 to 120 fire bombs, which burst at a low height or upon striking some object, and release their contents. In both cases, a large number of bombs fall within a small area and instead of one or two bombs penetrating a building, five or ten or even more may fall within a single room. This makes the task of dealing with them much more difficult and, if some of the bombs happen to be of the explosive type, the situation is definitely dangerous.

NEW TYPES OF INCENDIARIES. Of the new German incendiairies, one type is being used more extensively than any of the others. This is a high explosive modification of the small magnesium fire bomb. Actually it is an ordinary "kilo" magnesium bomb with a powerful charge of high explosive in an extension fitted to the nose. A wire, running the length of the bomb, holds the two parts together until impact when, usually, they break away and fall a short distance apart. The impact causes the fuse in the incendiary to light the thermite contents immediately and this, in turn, ignites the magnesium casing. At the same time it ignites a delayed action fuse in the explosive extension which usually *does not detonate until from one to seven minutes after, and therein lies its greatest danger.* The overall length of this bomb is about 21 inches and its weight is about five pounds—double that of the ordinary incendiary—which gives it much greater penetrative power.

Other types of explosive magnesium incendiaries used by the enemy carry the explosive charge in the casing or in the tail. These generally explode within the first two minutes.

Phosphorus and phosphorus-oil bombs are easier to recognize by the clouds of acrid smoke they give out and while these bombs are poor incendiaries, the fine particles of molten phosphorus are extremely dangerous. Water will put them out immediately, but every particle must be kept wet until placed where they can burn without causing damage. Phosphorus burns violently when dry and, wet or dry, *must never be touched with the bare hands.*

NEW BOMBS REQUIRE NEW METHODS OF ATTACK. Many of the fire bombs that may be dropped by enemy raiders will be of the old kind, but on the other hand, *any bomb dropped may be of the explosive type.* Therefore, *all* bombs must now be treated as if they are of the explosive type.

ADEQUATE COVER IS VITAL TO SAFETY. The explosive extension of the new German incendiary bomb is, in reality, a small high explosive anti-personnel or fragmentation bomb. When it explodes, the steel casing breaks into countless small pieces which are propelled at exceedingly high velocity in all directions and are capable of killing or seriously wounding at a distance of 100 feet or more. These fragments will penetrate an ordinary lath and plaster wall, a wooden fence or door and most pieces of furniture which, therefore, do *not* offer full protection.

Complete protection from the blast of these new bombs is provided by a solid brick, concrete, or stone wall 4½ inches thick, while reasonably good protection is afforded by similar walls 3 inches thick.

When fighting a fire bomb make the utmost use of the best available cover and be sure that the cover you choose affords protection from any other fire bombs that may have fallen nearby.

A STREAM OF WATER IS THE BEST WEAPON. *A stream or jet of water is the best weapon against all types of fire bombs* and is the only means by which both a burning bomb and any fires set by it can be attacked with equal effectiveness. It is also the only form in which water can be applied to a burning bomb from a relatively safe distance.

Properly used, a stream or jet of water from a stirrup pump or garden hose will control a burning incendiary in less than a minute and, often, in only a few seconds—using less than two gallons of water.

DO NOT APPROACH BURNING FIRE BOMBS. Short-range methods previously recommended, that involve approaching the bomb closely in the open, should *never* be attempted. To try to deal with a burning bomb by placing a sand-bag, sand-mat or loose sand on it will expose you unduly to danger not only from the bomb you are fighting—if it happens to be an explosive one—but from other explosive bombs that may have fallen nearby.

Do not approach or expose yourself to a burning bomb *during the first seven minutes*. After that it is reasonably safe to deal with it at close quarters in the normal way.

THESE ARE THE NEW INSTRUCTIONS FOR DEALING WITH FIRE BOMBS:

1 *Bombs falling where they will do no harm* should be left to burn themselves out. Keep away from them. If you have to pass one in the open do so on the run, giving it a wide berth and making use of any cover available.

2 *Bombs falling where they may start a fire* must be attacked promptly and resolutely but from behind the best cover available.

3 Use a *stream of water* on all types of burning incendiary bombs. Don't try to use sand-mats or other short range methods.
If you haven't a stirrup pump or garden hose and you have to act alone, throw water from behind cover in the direction of the bomb, using a small container filled from a bucket. Then, *after seven minutes* or when the bomb has exploded, enter the room and extinguish any remaining fire.

4 Concentrate on the fire first; then on the bomb.

5 If possible, attack a burning bomb in a room through a doorway from behind a wall or from the outside through a window, using the exterior wall of the building as a shield.

6 Search all floors for bombs. The new incendiaries have greater penetrative powers than the ordinary magnesium fire bomb and may go through to the ground floor.

7 Bombs lodging in the roof usually will be of the non-explosive type unless the roof is exceptionally strong. The new incendiaries usually penetrate the roof and one or two storeys.

8 *Do not touch, move or otherwise attempt to deal with an unignited bomb.* Some bombs contain a composition which will ignite spontaneously when wetted and allowed to dry. Others contain an explosive charge, to which is connected a delicate detonating fuse that will cause it to explode when touched.
Report unignited bombs immediately to the nearest Air Raid Warden or policeman.

THINGS TO REMEMBER

KEEP DOORS CLOSED. This prevents smoke from overcoming you, prevents the spread of fire, and restricts the movement of air currents feeding the fire.

SEARCH THE BUILDING. Start at the roof and work down. Look everywhere for an incendiary. It might be a dud or it might not burn the moment it strikes.

CLOTHING ON FIRE. If it is *your* clothing, clamp your hand over your mouth and nose to prevent inhalation of flames and roll about on the floor. If it is another person's, get him on the ground quickly, protect his mouth and nose, roll him around, or smother the flames with rug, coat or blanket.

Fig. No. 7

MAN OVERCOME. In a burning building, crawl on the floor, your nose close to the floor. Keep near walls (Fig. 7). Tie victim's wrists with tie, belt, or rope. Kneel across him. Put your head through the loop created by his bound wrists and crawl to safety with him. (Fig. 8).

Fig. No. 8

DOWN THE STAIRS. Turn the senseless man on his back, head pointing down the stairs; then cradling his head in the crook of your arm, slide him gently down. (Fig. 9).

OPENING DOORS WHEN NEEDED. If you have to enter a burning room of which the door opens outwards, place one foot within 2 inches of the door so any resultant blast of flame will not knock you down, and you can slam the door quickly. Keep your face away from the opening. Then drop on your knees and crawl in, keeping close to the wall. (Fig. 10).

Fig. No. 9

Fig. No. 10

WINDOW ESCAPE. If you are trapped in a burning building and no rope, ladder or sheet is available, and the drop is not more than 20 feet, follow these instructions: (Fig. 11).

(1) Sit on window sill facing outward.

(2) Turn around supporting yourself on forearms.

(3) Slide down until your fingertips grip edge of window-sill.

(4) Bend knees so you will drop away when you let go.

(5) Land on your toes, not flat on your feet.

When lowering a person from a window by a rope, ease the strain by standing with one foot on the rope, as in Fig. 12.

Fig. No. 11

AFTER AN ATTACK. First aid parties should reach the wounded speedily. Be prepared to tend any severe wounds.

GENERAL. Get in touch with your Warden and have him inspect your premises regarding the preparation of a refuge room, preferably the basement or ground floor.

Fig. No. 12

Clean up your attic and cellar. Remove all rubbish and other inflammable material, and make sure that you have access to all parts of your attic or roof space and cellar.

Store pails of water or containers of dry sand for use against incendiary bombs.

If you are out of doors in open spaces, and a raid occurs, do not risk running a distance for shelter. Lie down flat on the ground, in a depression if possible, and remain there until the danger is past. Bombs falling in parks or ravines will likely do less damage than those falling on hard surfaces.

SCREENING WINDOWS. In a blackout, it is advisable to have a room prepared in which the family can remain until the "All Clear" is sounded. It is a simple process to "Black Out" the windows so that light is not visible from the outside, and a room should be selected which affords the ordinary living comforts, and screened so that, if doors are opened, the light will not be visible through the unscreened windows of connecting rooms.

REFUGE ROOM DURING AIR RAID

No ordinary house or apartment will withstand the effect of a DIRECT HIT. Experience has shown, however, that properly re-inforced refuge rooms within such buildings have saved innumerable lives in the present war even when the buildings themselves have collapsed as a result of bomb explosions.

In the ordinary dwelling house or small apartment building usually the best place for such a refuge room is on the ground floor or in the basement, provided there is a means of exit directly to the outside that will enable the occupants to escape if the building collapses. A narrow room or space (or a hallway) should be selected in preference to a room or space with a wide expanse of ceiling because it will better withstand the weight of falling debris if the upper storeys collapse upon it, and will need less re-inforcing. It is also advisable to select a room in the rear of the building, such as the kitchen or pantry, or a room adjacent to a narrow alleyway (which will receive added protection from adjoining or nearby buildings) rather than one facing the street or a large open space.

The selection of a location away from the street is governed by the fact that, if a high explosive bomb falls on a street, the explosive effect is greater than the effect of a bomb which falls in the soft earth in the garden. Larger pieces of conrete and asphalt will fly with the explosion in the street.

By far the wisest course is to seek the advice of a competent architect, engineer or builder in the selection of best location for a refuge room and in connection with re-inforcing it.

Also, ask your Air Raid Warden for a copy of the book "Make Your Home Your Air Raid Shelter"—prepared by the office of Civil Air Raid Precautions, Ottawa.

SIMPLE FIRST AID

Pending the arrival of skilled aid, the reader will find it useful to have a fundamental knowledge of first aid. Following is an outline of conditions which may be met and treatment advised.

WOUND SHOCK. Every injury is followed by a condition known as Shock or Wound Shock, which is a failure of vitality varying in degree from transient faintness to extreme and dangerous prostration. In air raid cases Shock is likely to be very marked.

The condition can be divided into two stages, Primary Shock, which immediately follows the injury, and Secondary Shock, which may develop later as a result of excessive pain, bleeding or cold for a prolonged period, or through clumsy or incorrect handling. Primary Shock may lead to Secondary Shock, if proper care is not taken, and this, if allowed to develop, may endanger life.

Primary Shock can be treated, and Secondary Shock to a large extent prevented, by simple means:—

(1) Loss of blood must be checked.

(2) Pain must be relieved; for example, by gentle adjustment of the casualty's position, or by suitable support to the injured part before removal.

(3) The patient must be protected from chill, since in cases of shock, body temperature falls rapidly. Unnecessary removal of clothing should be avoided, and the casualty should be wrapped in blankets or coats, with one layer between him and the ground.

(4) Fractures or badly injured limbs or joints should be secured.

(5) Gentleness and smoothness are always essential in handling, lifting, and removing the patient.

(6) Warm sweet drinks, such as sweetened tea, are of advantage to patients suffering from shock, but it is dangerous to give any drink or food to an unconscious person, or to one who has a wound in the abdomen, or who complains of or gives evidence of abdominal pain.

Hot water bottles are useful for protecting casualties from chill. They can be placed where they can best warm the circulating blood, for example, between the body and outspread arms, or the upper part of both thighs, since in these regions main arteries are relatively close to the surface, and the warmth is circulated through the body by means of the blood stream. In doing this, care should be taken to wrap the hot water bottle in heavy material, to avoid burning the patient. Never lay a hot water bottle on the bare skin.

Where a domestic hot water bottle is not available, an ordinary bottle, or container, wrapped in any piece of heavy material will make a suitable substitute. If an ordinary glass bottle is used, it should not be filled with boiling water, as it may crack and subsequently break; care should be taken when moving the casualty to avoid breaking the bottle.

BLEEDING. (Haemorrhage) Profuse bleeding from a large artery endangers life. Loss of blood is, in any case, one of the main causes of both Primary and Secondary Shock, and even the continued oozing of blood from an extensive area of the body may lead, if neglected, to collapse and finally to death.

TYPES OF HAEMORRHAGE. Haemorrhage may be either external, in which case it is easily discovered, or it may be internal, caused by injury to blood vessels inside the body, from which the blood escapes to internal organs or cavities of the chest or abdomen. In the latter case, no blood is visible externally, unless it is coughed up or vomited.

SYMPTOMS OF HAEMORRHAGE. The signs and symptoms of severe uncontrolled bleeding, either external or internal, are as follows:

(1) There is a rapid loss of strength, accompanied by giddiness and faintness, especially if the casualty is raised to a sitting or standing position.
(2) The face and lips become pallid, and the skin cold and clammy.
(3) Breathing becomes hurried and laboured, and may be accompanied by yawning and sighing.
(4) The pulse quickly becomes so weak and rapid as not to be felt at the wrist.
(5) The patient becomes thirsty.
(6) He may become restless and throw his arms about or tug at clothing round the neck ("air hunger"), unlike a casualty suffering from Shock without serious bleeding, who will lie very still.
(7) Finally, the casualty may become wholly unconscious.

If these signs are observed, but no external cause is apparent, the case should be regarded as one of severe internal haemorrhage.

TREATMENT OF EXTERNAL HAEMORRHAGE. Blood escapes with less force if the casualty is sitting and still less, if he is lying, and the position of a casualty with external haemorrhage should be adjusted accordingly. Except in the case of a fractured limb, the bleeding part, where possible, should be raised to lessen the flow of blood to it. Firm, even, bandaging with a pad of cotton wool or other soft material placed over the wound will, normally, help to check the bleeding.

In the case of a severely lacerated limb, bleeding should be dealt with by bandaging over a splint even though no fracture has been definitely recognized.

Learn how to apply a tourniquet and the location of the 'pressure points', that is, the points at which pressure may be applied by the fingers in order to arrest bleeding. (Fig. 15).

TREATMENT OF INTERNAL HAEMORRHAGE. Internal haemorrhage can only be treated on the operating table. The first aid urgently needed is warmth, extremely gentle handling and lifting, and rapid removal for surgical treatment. Where there is even a suspicion of internal haemorrhage, the patient should on no account be allowed to eat or drink.

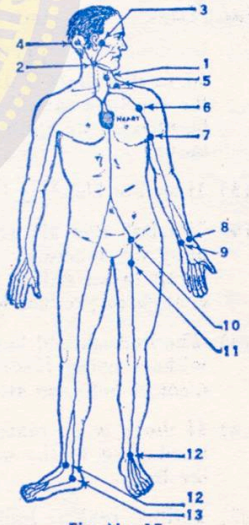

Fig. No. 15
PRESSURE POINTS
1. Carotid 2. Facial 3. Temporal 4. Occipital 5. Subclavian 6. Axillary 7. Brachial 8. Radial 9. Ulnar 10. Femoral (for finger) 11. Femoral (for tourniquet) 12. Tibial (front) 13. Tibial (back).

WOUNDS IN THE ABDOMEN. Casualties with wounds in the abdomen are more comfortable and less liable to further damage in moving if they are placed on the back, with the abdominal wall relaxed by bending the knees over a box, haversack, or rolled coat, and with the head and shoulders slightly raised. If any organs protrude, no attempt should be made to replace them, but they should be covered with lint, a soft towel, cotton wool, clean soft flannel, or similar material for protection, and the covering secured firmly, but not too tightly, with a broad bandage. It is desirable for the material used in contact with the wound to be wrung out of warm water to which table salt has been added in the proportion of one teaspoonful of table salt to a pint of hot water. A patient with an abdominal wound should never be given anything to drink

FRACTURES. **Simple Fractures**—When bone is broken and the surrounding flesh is undamaged, the injury is a simple fracture.

Compound Fractures—When bone is broken and in addition there is a flesh wound at the site of the fracture, the fracture is said to be compound.

Complicated Fractures—When bone is broken, and in addition there is damage to some important organ, the injury is a complicated fracture.

The following signs and symptoms may be present in cases of fracture:—

(1) PAIN at or near the point at which the bone is broken.

(2) LOSS OF POWER of movement in the affected limb.

(3) SWELLING around the part affected.

(4) DEFORMITY. The limb falling into an unnatural position, and having an abnormal shape.

(5) IRREGULARITY: if the bone is close to the surface, a bump may be felt at the break and, if the fracture is compound, the bone may be exposed and visible.

SIMPLE FIRST AID TREATMENT OF FRACTURES. (1) The first object is to prevent further damage being done by careless handling, and especially to avoid converting a simple fracture into a compound or complicated fracture.

(2) Unless the circumstances are such that danger to life is threatened, or that there is danger of further injury if the patient is not immediately removed, the fracture should be attended to where the patient lies. The injured limb should be secured by splints or in some other way, and then the patient may be carefully moved.

(3) If severe bleeding is endangering life, this must be first controlled.

(4) Warmth and air are required to guard against shock which will certainly accompany the fracture. Blankets or coats should be wrapped around the patient, care being taken not to disturb him unduly. Merely covering the patient is often not enough to prevent him from becoming chilled.

(5) The limb should be placed in as natural a position as possible, with great care and without using force. In the case of a compound fracture with a protruding fragment of bone, no attempt must be made to replace it.

(6) If there is no material for splinting, a fractured leg may be secured by careful bandaging to the opposite leg, or a fractured arm by bandaging to the trunk of the body.

(7) Splints, real or improvised, must be sufficiently firm, and long enough to keep the joints immediately above and below the fracture at rest. The bandages must be firm, but not so tight as to interfere with circulation.

(8) Splints should be put on over clothing and should if possible, be padded in places where there is risk of rubbing, or where there are gaps between the splint and the body. Any suitable material which is available, such as clothing, handkerchiefs, or newspaper may be used for padding.

IMPROVISED SPLINTS. Serviceable splints may be improvised from such things as laths from a venetian blind, walking sticks, pieces of cardboard, rolled up linoleum, or newspaper, and a number of other articles, provided that the resulting improvisation gives sufficiently rigid support for the limb, and is long enough to prevent movement of the joints immediately above and below the fracture.

IMPROVISED BANDAGES FOR SECURING SPLINTS. Where the proper bandages, such as a triangular bandage, cannot be secured, scarves, such as those worn by Boy Scouts, or pieces of cloth can be used. Ties, braces, straps, belts, or lengths of rubber tubing may be employed to secure splints or dressings.

IMPROVISED SLINGS. Slings may be improvised by pinning the sleeves of the coat to the garment or by turning up the lower edge and pinning it to the main body of the coat. Improvisation may also be successfully effected by passing the hand inside the coat or waistcoat, which should be buttoned. Scarves, ties or belts loosely slung around the neck will also provide support.

UNCONSCIOUSNESS (Insensibility). As a general rule, an insensible person should be laid on the back, wrapped in coats or blankets, with the head turned to one side; if he has false teeth, they should be removed. If the face is flushed, the head and shoulders should be slightly raised; if it is pale, they should be kept low.

Any tight clothing, especially at the neck, chest or waist, should be loosened. Nothing must be given through the mouth to a person who is partially or wholly insensible. If an insensible person must be moved, smoothness and care are essential.

SUFFOCATION (Asphyxia). Anything which prevents the body from getting sufficient oxygen will cause a condition known as asphyxia, which, if unrelieved, will lead to insensibility and death.

Common causes of asphyxia under air raid conditions include electrocution; continued pressure on the chest or obstruction of the upper breathing passages; confinement in a poisoned atmosphere (for instance, in an enclosed space containing domestic coal gas fumes or after-damp); and drowning.

The first action is to remove the cause of the asphyxia, or to move the casualty from the cause, whichever is the more suitable, and then immediately to begin artificial respiration, preferably by the Schaefer method, which is as follows:—

The patient should be placed face down with the head turned to one side and his arms forward. The helper should kneel astride the patient facing towards the head, and should place his hands on the small of the back, with wrists nearly touching, thumbs together, and fingers passing over the loins on either side. He should swing rhythmatically backwards and forwards from the knees at the rate of about 12 double swings per minute, keeping his arms straight, so that his weight presses the patient's abdomen against the ground and forces his abdominal organs against the diaphragm on the forward swing, pressure being entirely released on the backward swing. The pressure period should occupy 2 seconds, and the period of relaxation, 3 seconds; to ensure regularity the rescuer should count evenly up to 5 on each double swing. This should be continued until natural breathing returns, when the rhythmatic swing of the helper should coincide with the patient's respiratory movements. (Figs. 16 & 17).

Fig. No. 16

Fig. No. 17

Artificial respiration may have to be continued for an hour or longer, relays of helpers being employed if necessary.

While artificial respiration is being performed, other helpers should undo all tight clothing and wrap coats or blankets round the casualty.

REMOVAL FROM ELECTRICAL CONTACT. In cases of injury due to an electrical current, the current should, if possible, be switched off at once. If this is not possible, it is necessary that the helper should himself be protected from becoming electrocuted, and for this reason, he must place non-conducting materials between himself and the casualty, and between himself and the earth. Non-conducting materials, which may be available, include rubber, linoleum, wood, glass, clothing or newspaper. They should all be dry.

The injured person may be dragged away from the electrical medium with a hooked walking stick or a loop of dry rope; an umbrella should not be used since the metal parts will conduct electricity. Metal and moisture are good conductors of electricity, and therefore the helper should avoid touching the hands, arm-pits, wet clothing, nailed boots or metal equipment of the injured person.

BURNS (Other than from Gas) AND SCALDS. A burn is caused by dry heat, for example, by a flame, hot metal, or a strong acid or alkali. A scald is caused by wet heat, for example, by steam, boiling water, or boiling oil.

GENERAL RULES FOR THE TREATMENT OF ALL BURNS AND SCALDS ARE:

(a) Air should be excluded from the affected part as soon as possible. It should either be immersed in water, preferably at body temperature, or covered with clean cotton wool, lint, or soft clean cloths, and then bandaged. These are only temporary measures to meet the situation until suitable first aid dressings are prepared.

(b) If clothing has to be removed, great care should be used. If it sticks, it is necessary to cut around the pieces of cloth which adhere to the flesh so as to leave them in position when the garment is removed. If blisters have formed, they must not be broken or punctured, but should be kept intact, and be protected.

(c) Suitable first aid dressings may be made from strips of lint or linen about 2 inches wide; they should be:—

either (1) soaked in warm strong tea and allowed to dry;

or (2) soaked in a lotion made by stirring baking soda in clean warm water. In this case, the strips must be kept wet by repeated damping with the lotion, which can be poured on over the bandage without necessitating its removal each time. The strength of the lotion should be about two teaspoonfuls of soda to a pint of water.

or (3) smeared with tannic acid jelly on the surface to be applied to the skin.

The dressings, which should slightly overlap, should be covered with cotton wool or soft cloth and lightly bandaged, and the affected part supported.

In severe or extensive burns, shock will be marked and will require attention. The patient must be kept warm. Do not apply oil of any kind on burns and never use tannic acid jelly on burns caused by *incendiary bombs*, as the muscles contract and cannot be straightened out again.

Where there are casualties requiring treatment and the Casualty Services are not immediately available, those on the spot, even if they do not know the precise treatment required, will very often be able, with elementary knowledge, to relieve the sufferings and possibly even to save the lives of the wounded.

The first consideration must always be to deal with any immediate danger to life. Examples of such dangers are excessive bleeding, interference with normal breathing (through pressure on the chest, obstruction of the air passages by debris or by electrocution), or nearness to moving machinery, tottering buildings, a spreading fire, or a poisoned atmosphere. In all such cases, the source of danger must be removed from the casualty or the casualty moved away from the source of danger. After immediate danger to life, the second consideration is to try to avert or minimize injury, and the third, to reduce pain and shock and make the casualty as comfortable as possible.

IT MAY BE CONVENIENT TO SUM UP BRIEFLY SOME OF THE MAIN GUIDING PRINCIPLES IN ELEMENTARY FIRST AID:—

(1) Severe bleeding should be attended to at the earliest possible moment. This does not mean that every cut or wound should have prior attention. Discrimination should be used; the rule applies to profuse bleeding, the continuance of which would endanger life.

(2) The casualty must be able to breathe normally; any cause of difficult breathing must be dealt with; and artificial respiration must be started promptly, and maintained.

(3) In cases of severe injury to a limb, whether or not a fracture is recognized, and in all cases of injury involving joints, the affected part should be supported and secured by simple methods before the casualty is removed, unless for any reason, his life is in danger.

(4) Any person who is, or has been, entrapped or buried under debris must be treated on the assumption that the severest crush injuries have been received. These might include fracture of the thigh, pelvis or spine.

(5) A person who is wholly or partly unconscious, or one who is even suspected of suffering from internal injury, must not be given anything to eat or drink.

(6) The indiscriminate use of alcohol in first aid can be dangerous; it should not be given to persons suffering from any type of injury except on the direct order of a doctor.

(7) All injured persons will be suffering from Primary Shock; Secondary Shock, coming on some time after injury, may be fatal. Secondary Shock can, to a large extent, be prevented by the simple measures mentioned in this booklet.

(8) Chill should always be prevented; and the casualty should, at all times, be handled and moved with the greatest care and gentleness.

WHEN AN AIR RAID WARNING IS SOUNDED

1. Keep calm, avoid panic and confusion; obey orders, think before you act. Do not listen to rumours. Rely on your Warden.
2. If indoors, stay there until the "All Clear" is given. Don't run out on the street.
3. Stay away from windows, whether you are inside or outside.
4. Black out your premises. Turn out all lights not screened
5. Give shelter to any person seeking it.
6. Don't telephone, except in a case of real emergency.
7. If outdoors, take cover immediately. Walk, don't run, and keep to the sidewalks. If there is no cover, lie flat.
8. If driving, pull in immediately to the curb, off the roadway, or any parking place. Cut the motor, turn off the lights and take cover. Cover front and back bumpers with white paper, if you can. Don't park in forbidden locations.
9. Obey the orders of Police and Wardens. They're helping you.

IF AN AIR RAID IS IMMINENT:

1. Turn off the gas at the meter if bombs fall near enough to your house to rattle the windows.
2. Prepare against the shattering of glass by placing shields on the inside of windows or affixing adhesives to the glass.
3. Provide yourself with an emergency water supply by filling baths, sinks, and other large receptacles, in case water mains are burst by explosions.
4. Go to your Refuge Room quickly and quietly.
5. Stand ready to deal with incendiary bombs.
6. Managers of large premises should be prepared to afford protection to employees and others in the premises.
7. If your children are in school, do not rush to get them. They will be competently looked after and will be kept in the school. Do not telephone the school.

AN OUNCE OF PREVENTION IS WORTH A POUND OF CURE

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DUESBURY-JARRETT PRINTING HOUSE LTD

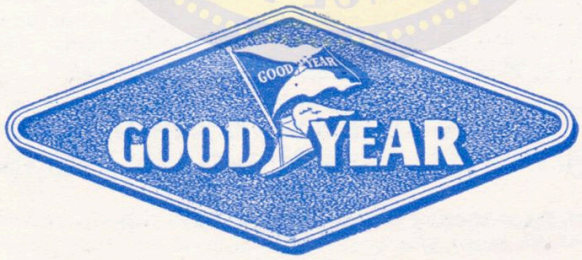
Our Contribution....

The Goodyear Tire and Rubber Company is pleased to contribute the printing of this book . . . . as helpful information for the citizens of this community, as an assistance to that splendid voluntary group, your Civilian Defence Committee, and in the interest of general preparedness.

Similarly, the Goodyear Company and its dealers are helping Canada to conserve vital rubber, helping motorists to lengthen the life of their tires, by means of the Goodyear Tire Life Extension Plan.

If you drive a car, you will be able to run it only as long as the tires last. The Goodyear Tire Life Extension Plan embodies a proven series of regular tire services that have been known to double and even triple tire mileage. By keeping your car going, you help bolster Canada's already over-loaded transportation systems.

Care for your tires. They are precious. Your nearby Goodyear dealer will be pleased to help you get the maximum mileage from them.



WHEN YOU NEED A.R.P. ADVICE, CONSULT YOUR WARDEN

Name .....

Address .....

Telephone No. .....

Don't use your telephone during an air raid unless it is vitally important