

CHAPTER 8

First Aid And Personal Hygiene

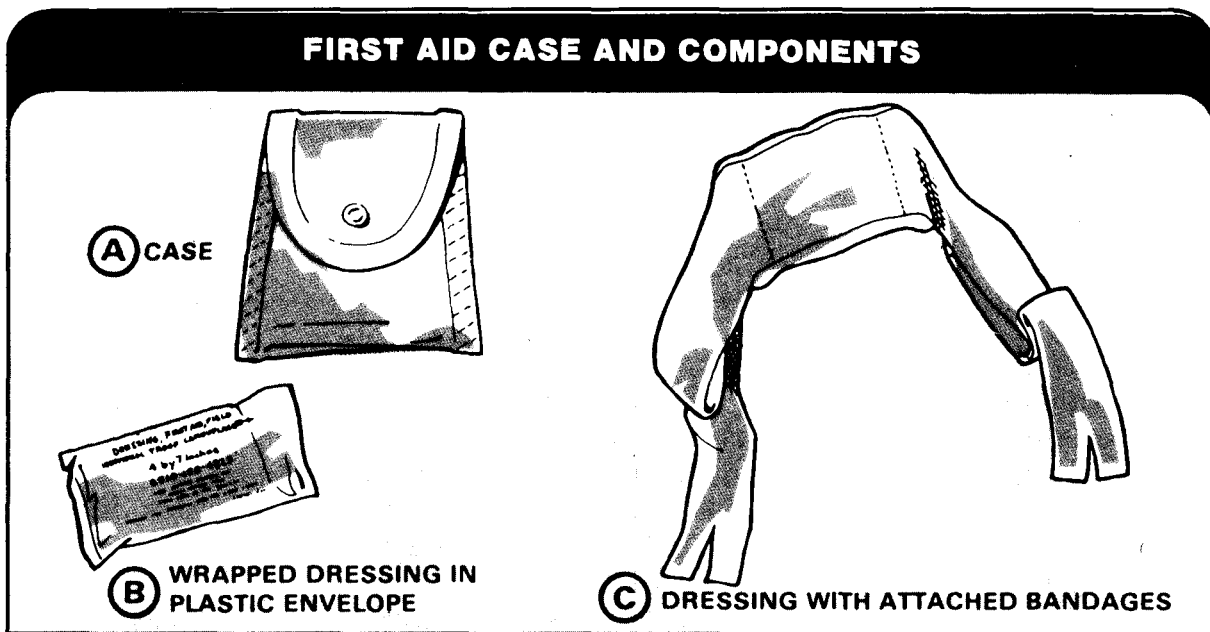
GENERAL

First aid is the care and treatment you give a casualty before medical personnel arrive. Personal hygiene is the steps you take to protect your own health and that of others. Your personal-hygiene and first-aid skills could save your life or the life of a buddy.

By knowing what to do, and by getting medical help quickly, you may be able to save lives, prevent permanent disabilities, and prevent long periods of hospitalization.

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The field first-aid packet issued to you should be carried at all times for personal use. It contains one or two field first-aid dressings. Use the first-aid dressings on wounds. When giving first aid to a casualty, you should use the casualty's first-aid items. You may need your own items later if you become injured. For more information on first aid, see FM 21-11.



LIFESAVING MEASURES

When you or your buddy is wounded, first aid must be given at once. The first step is to apply (as needed) the four life-saving measures. These measures are:

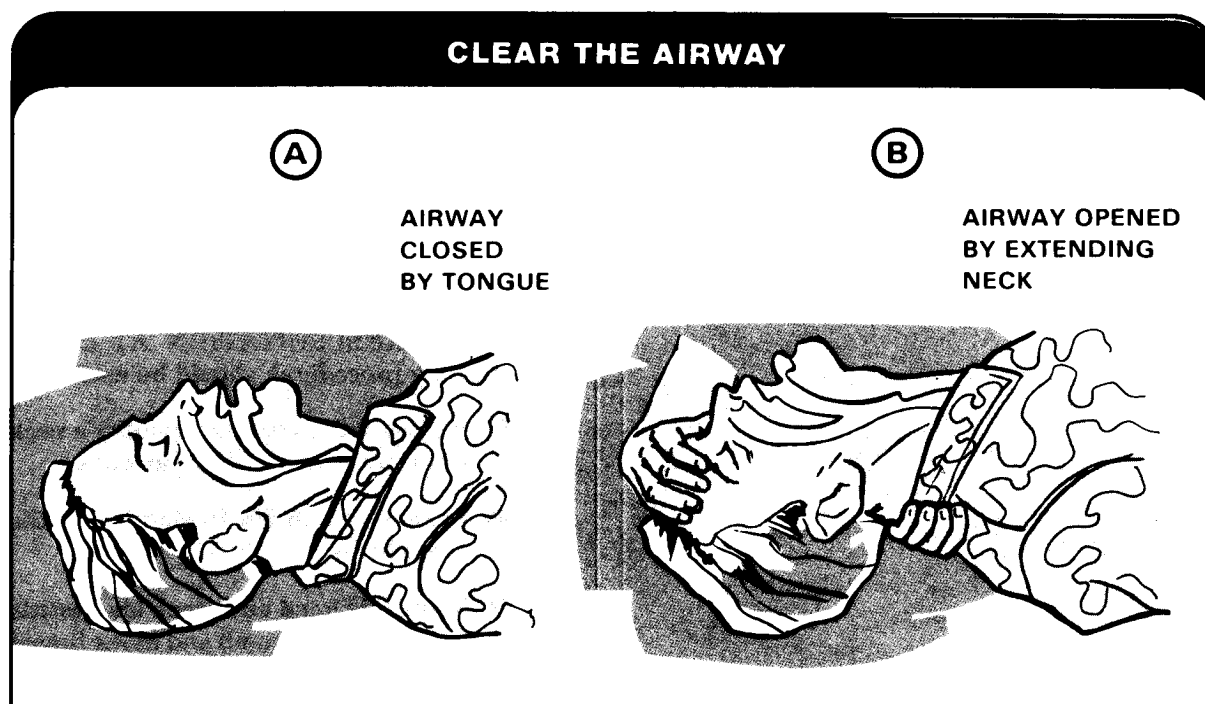
- Clear the airway; check and restore breathing and heartbeat.
- Stop the bleeding.
- Prevent shock.
- Dress and bandage the wound.

CLEAR THE AIRWAY; CHECK AND RESTORE BREATHING AND HEARTBEAT

Clear the Airway. The lack of oxygen intake through breathing and lack of heartbeat leads to death in a very few minutes.

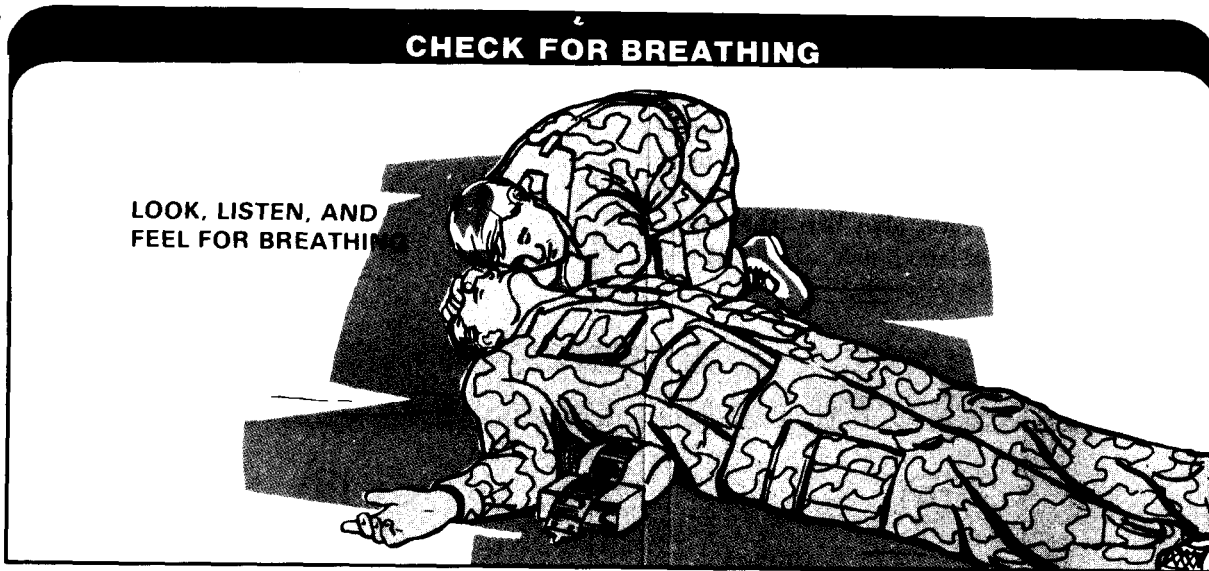
When treating a casualty, first find out if he is breathing. **If he is not breathing**

- Place him on his back and kneel beside his head.
- Clear his airway by removing any obstruction in his mouth.
- Place your hand (the hand nearest his feet) under his neck and put your other hand on his forehead. Extend his neck by lifting with the hand under the neck and pushing down on the forehead. This also lifts the tongue away from the back of the throat, opening the airway.



Check for Breathing. After opening the airway, LOOK, LISTEN, and FEEL to find out if the casualty is breathing. The following procedures should be used:

- Put your ear near the casualty's mouth and nose: hold this position for about 5 seconds.
- LOOK to see if the casualty's chest is rising and falling.
- LISTEN and FEEL for breathing.

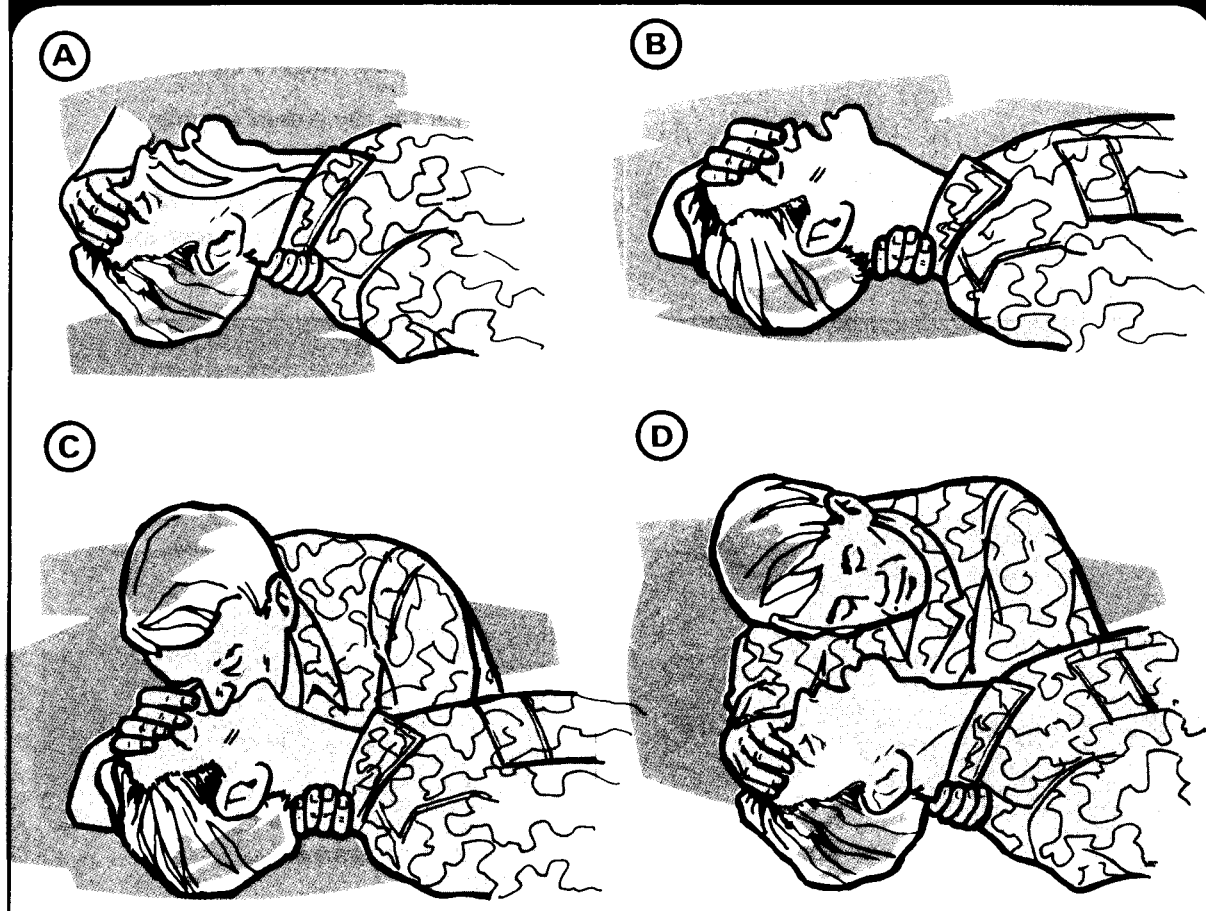


Restore Breathing. IF THERE ARE NO SIGNS OF BREATHING, START MOUTH-TO-MOUTH RESUSCITATION AT ONCE. The following procedures should be used

- Put a hand under the casualty's neck to keep the head tilted far back.
- Press down on his forehead with the other hand.
- Move this hand and pinch his nostrils between your thumb and index finger.
- Open his mouth wide.

- Take a deep breath and place your mouth over his, making an airtight seal with your lips.
- Blow into his mouth.
- Give four or five quick but full breaths to make sure his lungs are full.
- Remove your mouth, turn your head, and LOOK, LISTEN, and FEEL for exhaled air.
- Repeat this procedure once every 5 seconds until the casualty exhales.

GIVE MOUTH-TO-MOUTH RESUSCITATION



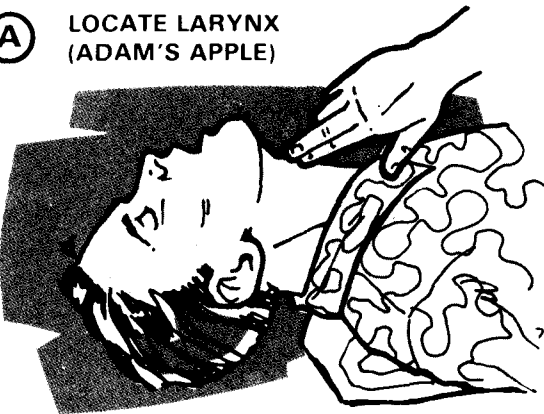
If you feel strong resistance when you first blow air into the casualty's mouth, quickly reposition his head and try again. If the airway is still not clear, roll him onto his side. Hit him sharply between his shoulder blades with the heel of your hand to dislodge any foreign objects. If the casualty's abdomen bulges (air going into stomach), apply gentle pressure on his abdomen with one hand to force the air out. If this makes the casualty vomit, quickly turn him onto his side, clean out his mouth, and continue giving mouth-to-mouth resuscitation.

Check for Heartbeat. When you find an unconscious casualty, check to see if he has a heartbeat and if he is breathing. To check for heartbeat, use the following procedures:

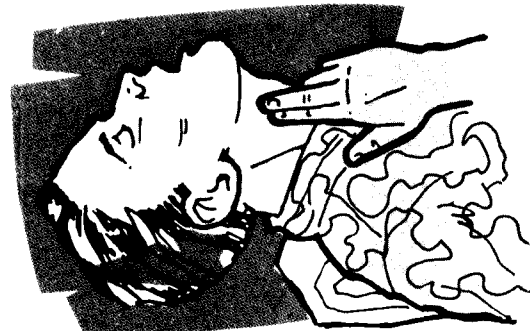
- Tilt the casualty's head back.
- Place your fingers on his throat.
- Feel for the Adam's apple.
- Slide the fingers down from the Adam's apple to the side of the throat. This will place the fingertips over an artery, where the pulse can be felt.

CHECK FOR HEARTBEAT

(A) LOCATE LARYNX
(ADAM'S APPLE)



(B) SLIDE FINGER TO
CAROTID PULSE



IF YOU CANNOT FEEL A PULSE, START EXTERNAL
HEART MASSAGE AT ONCE.

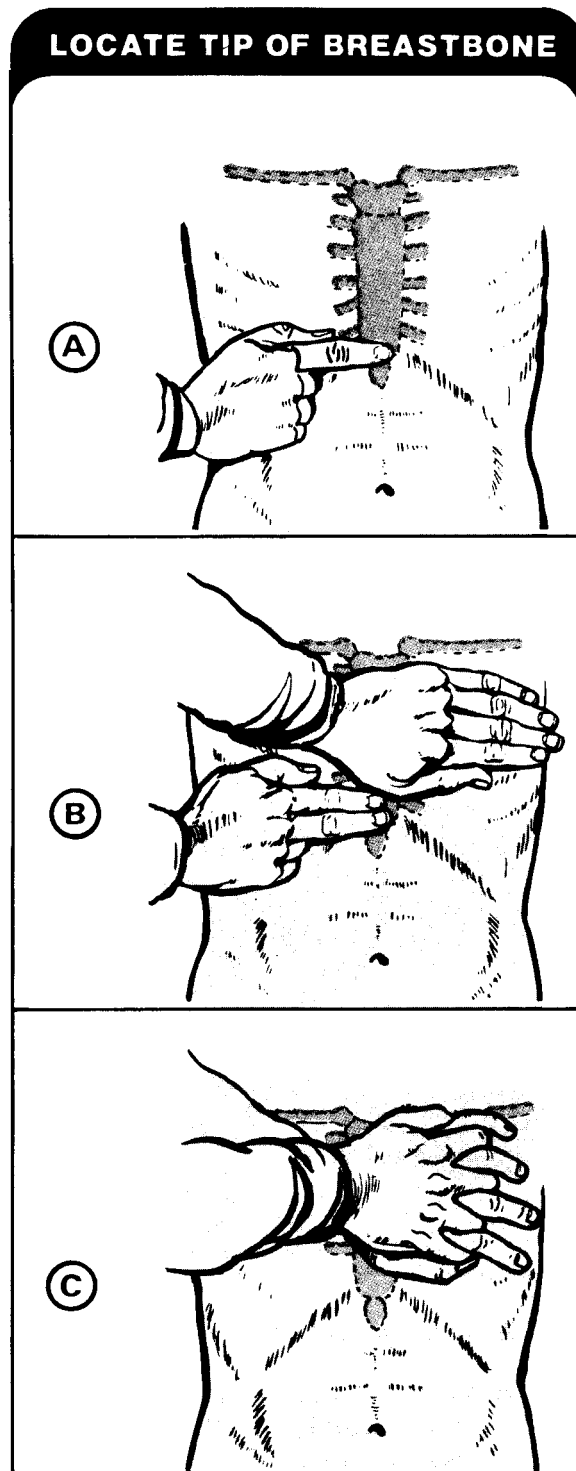
Restore Heartbeat. You must start external heart massage quickly, as permanent damage to the brain may occur if it is deprived of oxygenated blood. Examples of times without oxygen and likelihood of brain damage are listed below:

BRAIN DAMAGE WITHOUT OXYGEN
0-4 MIN BRAIN DAMAGE NOT LIKELY
4-6 MIN BRAIN DAMAGE PROBABLE
6-10 MIN BRAIN DAMAGE VERY LIKELY
OVER 10 MIN BRAIN DAMAGE ALMOST CERTAIN

External heart massage provides artificial circulation by squeezing the heart between the breastbone and the backbone, forcing blood through the lungs, brain, and body.

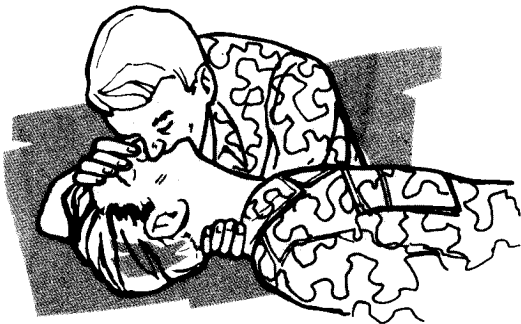
To perform mouth-to-mouth resuscitation and external heart massage at the **same time**:

- Kneel at the casualty's side.
- Blow four quick but full breaths into the casualty (as described earlier) to fill the lungs with air (his head must be tilted back and his airway open). Locate the tip of the breastbone and measure two finger-widths up from that tip.
- Place the heel of the other hand along side the fingers. Then, put both hands together and interlace the fingers. Push downward on the chest 15 times at a rate of 80 counts per minute.



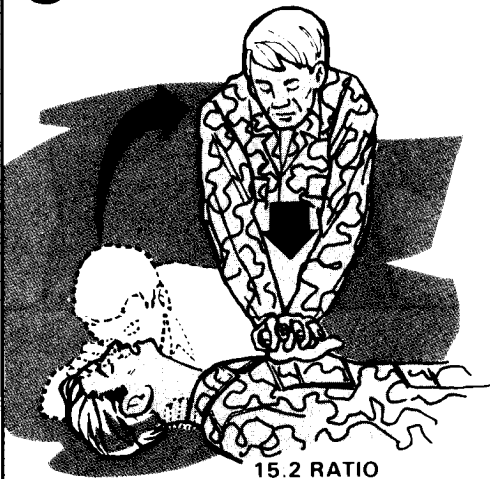
FILL LUNGS AND COMPRESS CHEST

(A) VENTILATION



2 QUICK LUNG INFLATIONS

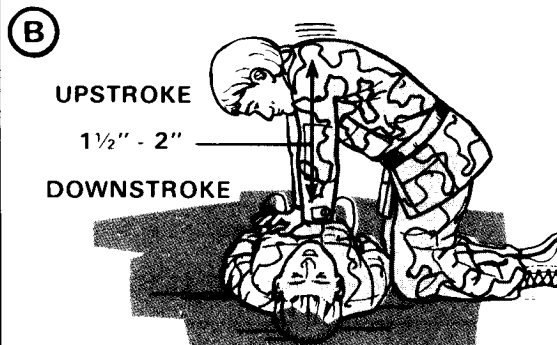
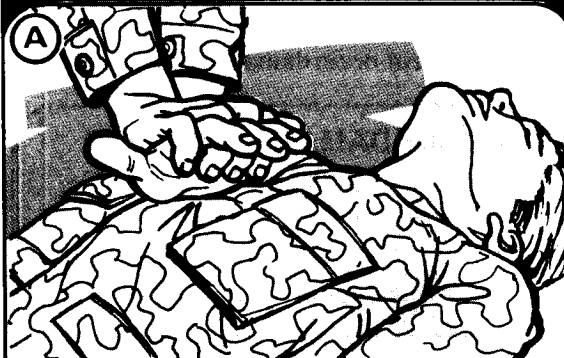
(B) COMPRESSION



15:2 RATIO
15 CHEST COMPRESSIONS
RATE OF 80/MIN.
2 QUICK LUNG INFLATIONS

- Lean forward with the elbows locked.
- That will compress the casualty's chest about 1½ to 2 inches. Then release the pressure on the chest.

USE CORRECT POSITIONS



- After each 15 compressions, shift positions slightly and give him 2 quick, but full, breaths.
- Continue this 15 to 2 ratio:
 - Until the casualty can breathe by himself and his pulse returns.
 - Until relieved by someone.
 - Until the casualty is dead.

If two of you are present, one should give mouth-to-mouth resuscitation and the other should give heart massage. In that case, the procedure is slightly different. The soldier giving the heart massage should change the number of compressions from 15 at a time to 5, keeping the 80-per-minute rate. The soldier giving mouth-to-mouth resuscitation, should give 2 breaths after each 5 compressions.

USE TWO SOLDIERS IF PRESENT

(B) BREATHING

(A) AIRWAY

(C) CIRCULATION

1 LUNG INFLATION
 — AFTER EACH 5 COMPRESSIONS
 — INTERPOSED BETWEEN COMPRESSIONS
 5:1 RATIO

5 CHEST COMPRESSIONS
 — RATE OF 60/MINUTE
 — NO PAUSE FOR VENTILATION

NOTE: THE TWO RESCUERS SHOULD BE ON OPPOSITE SIDES OF SOLDIER DURING THESE PROCEDURES.

STOP THE BLEEDING

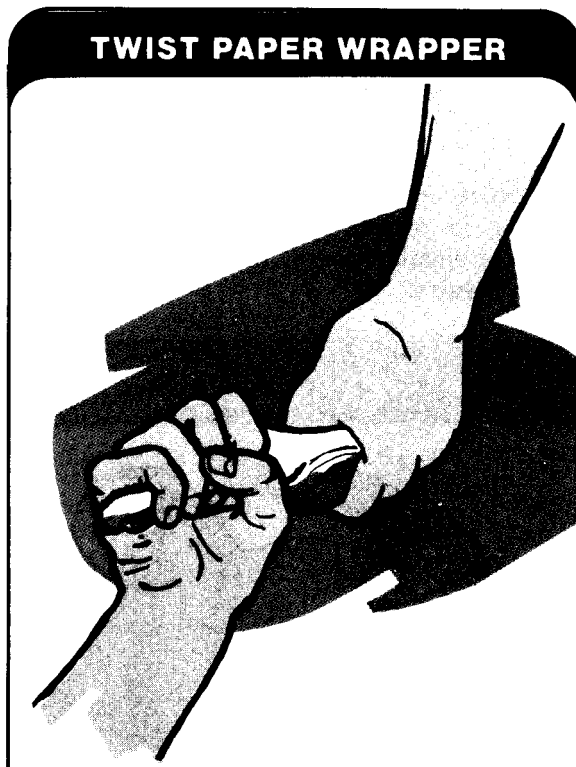
If the casualty is breathing and his heart is beating, the next thing to do is to stop the bleeding of the wound. Before you stop the bleeding, you must find all wounds. Look for

both entry and exit points. This is to see that nothing is overlooked, as a bullet usually makes a smaller wound where it enters than where it exits.

CHECK FRONT AND BACK WOUNDS

After finding all wounds, stop the bleeding by using the following procedure:

- Without touching or trying to clean the wound, cut and lift the clothing away from the wound to expose it. Do not touch the wound or try to remove objects from it.
- Put a field first-aid dressing on the wound, trying not to contaminate the dressing or the wound. To put on the dressing:
 - Remove the dressing from its plastic envelope and twist it to break the paper wrapper.



- Grasp the folded dressing with both hands (do not touch the

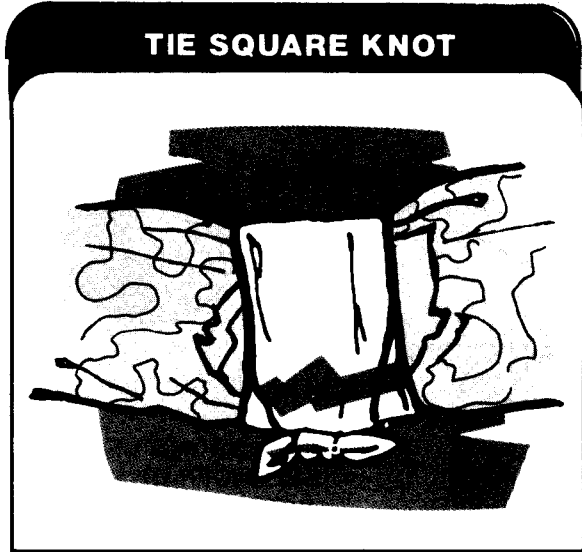
side of the dressing that goes on the wound).



- Place the dressing on the wound without letting it touch anything else.



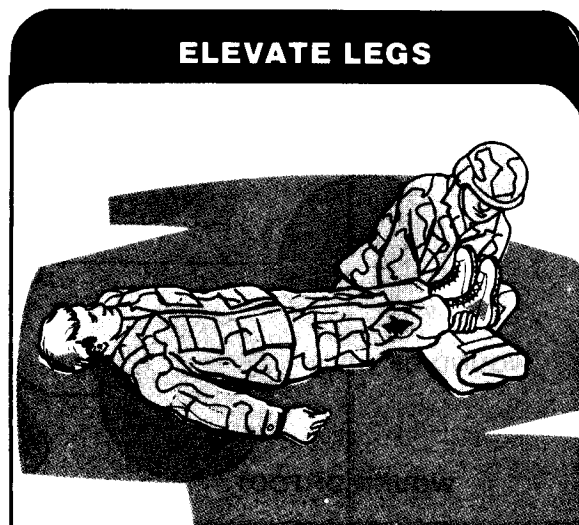
- Wrap the dressing around the wound and tie the ends securely with a square knot. If possible, tie the knot directly over the wound.



- If more pressure is needed to stop the bleeding, put a thick pad or stone on top of the dressing and tie the ends of the dressing over the pad or stone. This is called a pressure dressing.

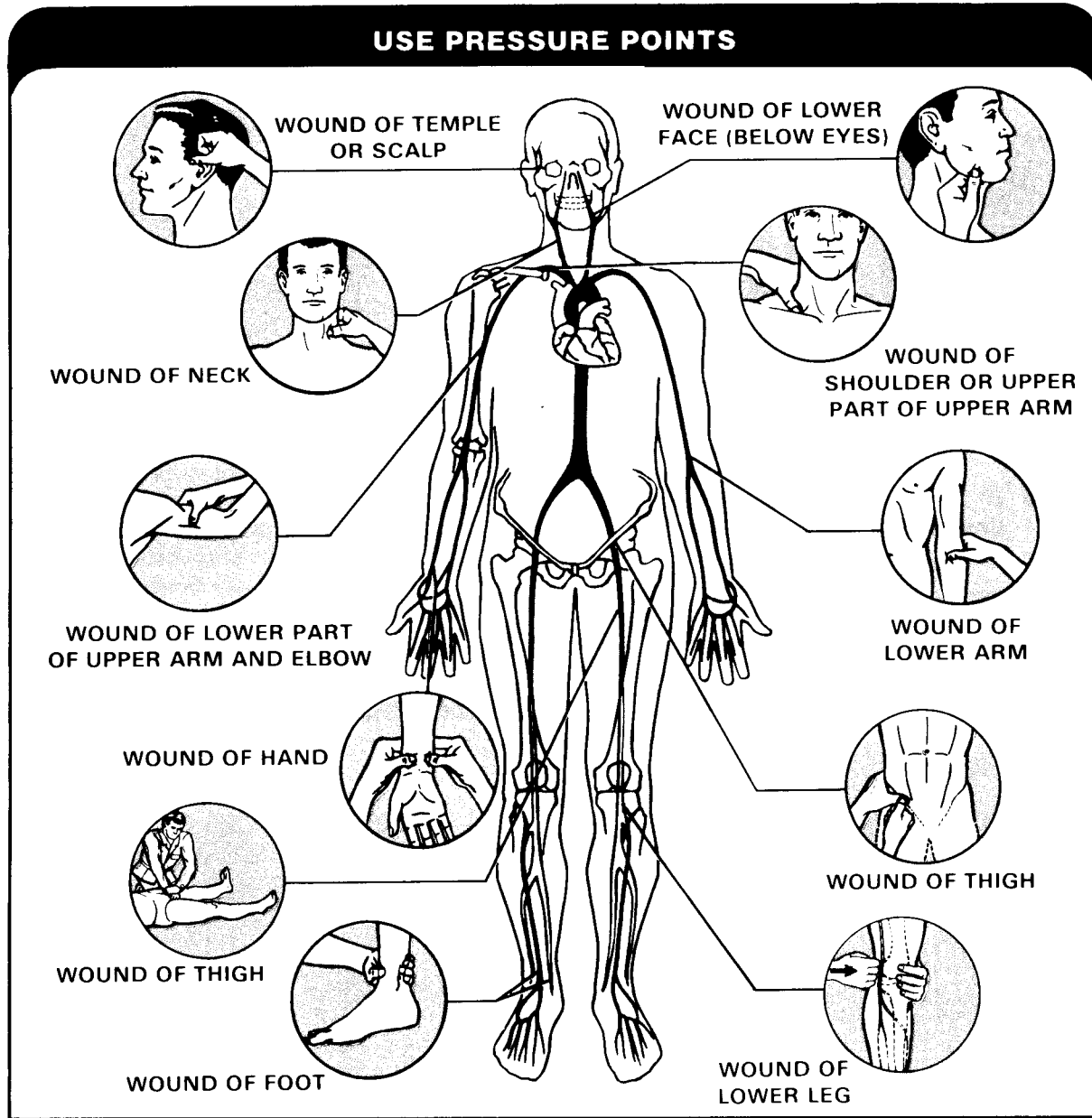
- If the bleeding continues after the dressing is secured on the wound, press the bandage for 5 to 10 minutes.

- If the wound is in an arm or leg and the bleeding has not stopped, raise the injured limb above the level of the heart. This helps to slow down or stop the bleeding. Do not, however, raise a limb with a broken bone unless it is properly splinted.



● If blood is spurting from the wound, there is bleeding from an artery. To stop it, press on the point of the body where the main artery supplying the wounded area with blood is located. This pressure should shut off or slow down the flow of blood from the heart to the

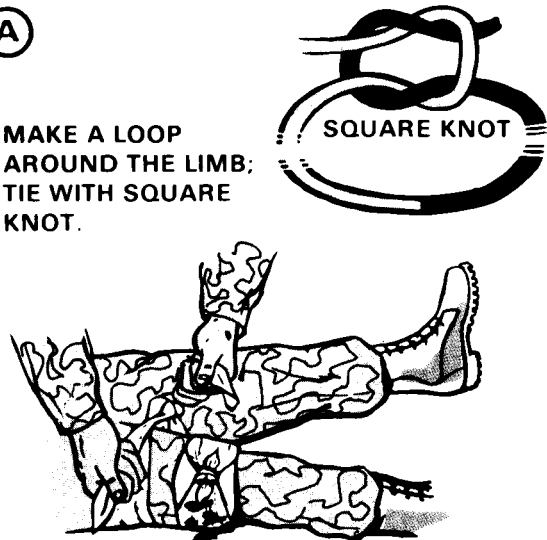
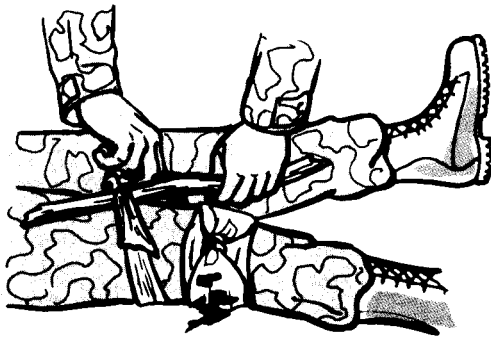
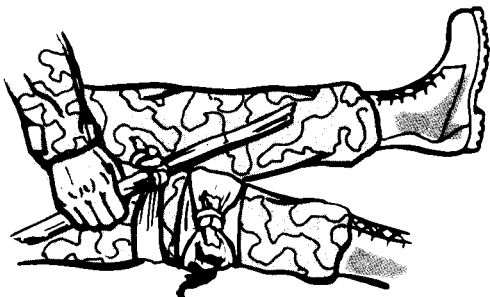
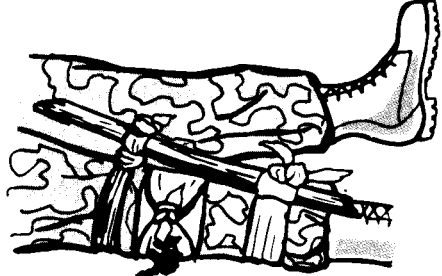
wound until a pressure dressing can be put on it. In some cases, you may have to keep pressure on the pressure point even after the dressing is put on. The best pressure points of the body to use in stopping arterial bleeding are shown in the following illustration.



- If the wound continues to bleed after you apply pressure to a pressure point and apply a pressure dressing, use a tourniquet. This should be a **LAST RESORT ONLY**. Put the tourniquet between the wound and where the injured limb joins the trunk. Put it 2 to

4 inches above the wound, not over it. Never loosen or remove a tourniquet once it has been put on. If possible, mark a "T" on the casualty's forehead at the time the tourniquet is put on. Then get the casualty to an aid station quickly.

APPLY TOURNIQUET

<p>(A)</p> <p>MAKE A LOOP AROUND THE LIMB; TIE WITH SQUARE KNOT.</p>  <p style="text-align: center;">SQUARE KNOT</p>	<p>(B)</p> <p>PASS A STICK, SCABBARD, OR BAYONET UNDER THE LOOP.</p> 
<p>(C)</p> <p>TIGHTEN TOURNIQUET JUST ENOUGH TO STOP ARTERIAL BLEEDING.</p> 	<p>(D)</p> <p>BIND FREE END OF STICK TO LIMB TO KEEP TOURNIQUET FROM UNWINDING.</p> 

PREVENT SHOCK

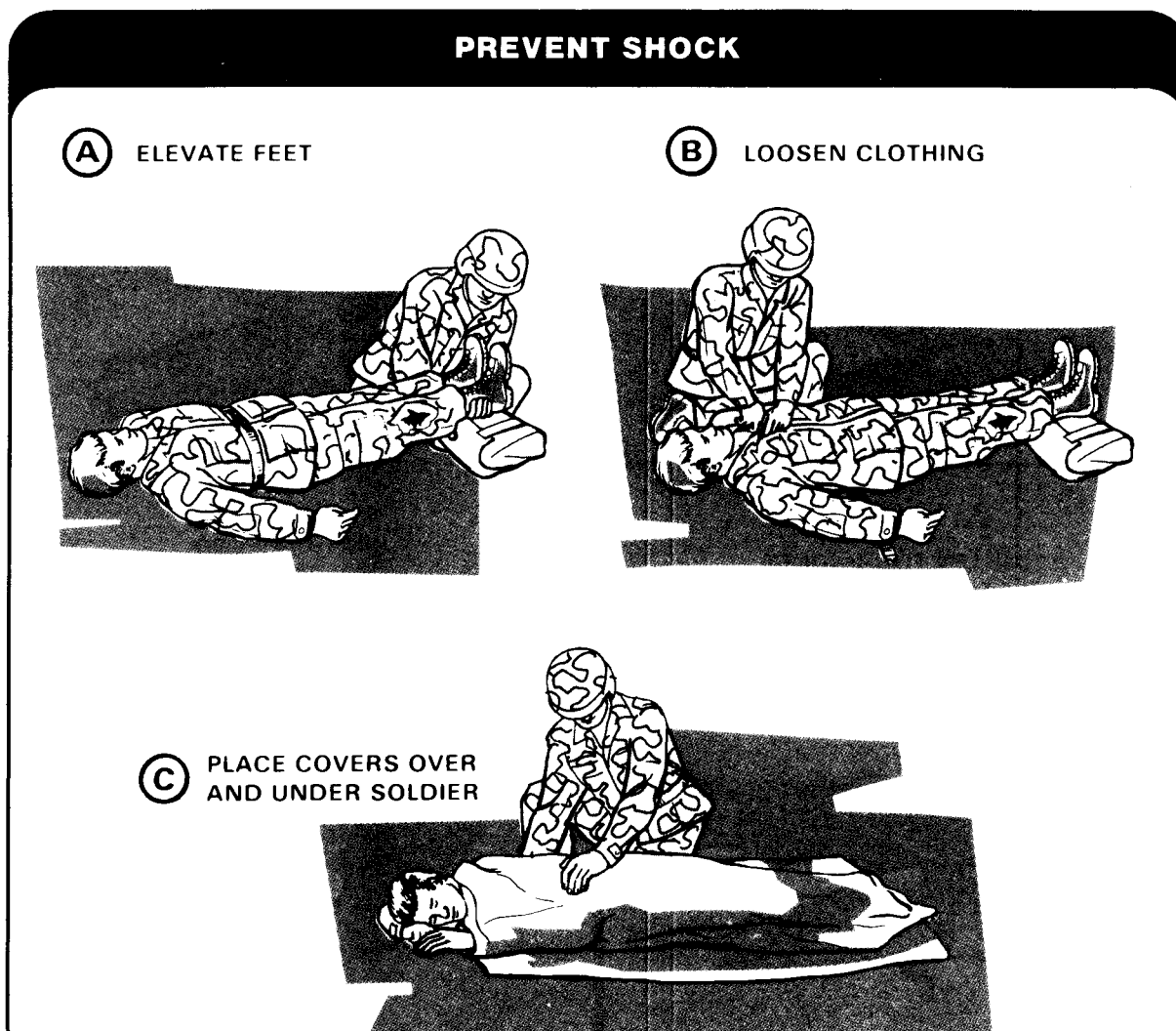
Unless shock is prevented or treated, death may result, even though the injury would not otherwise be fatal.

Shock may result from any injury, but is more likely to result from a severe injury. **Warning signs of shock are restlessness, thirst, pale skin, and rapid heartbeat.** A casualty in shock may be excited or appear calm and tired. He may be sweating when his skin feels cool and clammy. As his condition worsens, he may

take small, fast breaths or gasps; stare blindly into space or become blotchy or bluish around his mouth.

After giving the casualty the first two lifesaving measures, look for signs of shock. If the casualty is in shock or is about to go into shock, treat him at once for shock. To treat for shock, **proceed as follows:**

- **Loosen the casualty's clothing at the neck, waist, and wherever it restricts circulation.**



Reassure the casualty by being calm and self-confident. Assure him that he will be taken care of.

Place the casualty in a comfortable position. His position depends on his condition. If he is conscious, place him on his back with his feet raised 15 to 20 cm (6 to 8 in). If he is unconscious, place him on his side or abdomen with his head turned to the side. If he has a head wound, raise his head higher than his body. If he has a wound of the face and/or neck, set him up and lean him forward with his head down or in the position for an unconscious casualty. If he has a sucking chest wound, set him up or lay him down on the injured side. If he has an abdominal wound, lay him on his back with his head turned to the side.

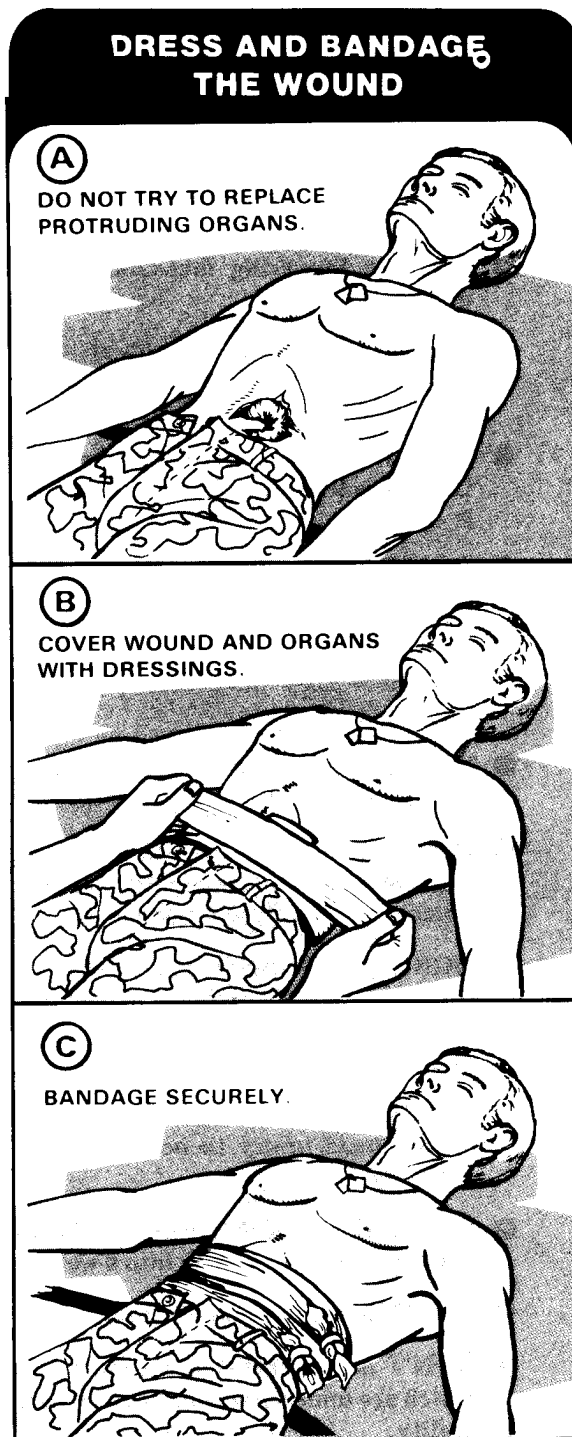
Keep the casualty warm. It may be necessary to place ponchos or blankets under and over him.

DRESS AND BANDAGE THE WOUND

The healing of wounds and recovery depend a lot on how well you initially protect the wound from contamination and infection.

A wound must be dressed and bandaged to protect it from further contamination, as well as to stop the bleeding. Use the field first-aid dressing in the first-aid packet to dress and bandage a wound. A dressing is any sterile pad used to cover a wound. A bandage is any material used to secure a dressing to a wound. The field first-aid dressing already has bandages attached to it. Use the dressing to cover a wound and the bandages to secure the dressing to it.

For information on how to dress and bandage different wounds, see **chapter 6, FM 21-11.**



DOs AND DON'Ts OF FIRST AID

When giving first aid to a casualty, remember the following:

- DO act promptly but calmly.
- DO reassure the casualty and gently examine him to determine the needed first aid.
- DO give lifesaving measures as required.
- DON'T position a soldier on his back if he is unconscious or has a wound on his face or neck.
- DON'T remove clothing from an injured soldier by pulling or tearing it off.
- DON'T touch or try to clean dirty wounds, including burns.
- DON'T remove dressings and bandages once they have been put on a wound.
- DON'T loosen a tourniquet once it has been applied.
- DON'T move a casualty who has a fracture until it has been properly splinted, unless it is absolutely necessary.
- DON'T give fluids by mouth to a casualty who is unconscious, nauseated, or vomiting, or who has an abdominal or neck wound.
- DON'T permit the head of a casualty with a head injury to be lower than his body.
- DON'T try to push protruding intestines or brain tissue back into a wound.
- DON'T put any medication on a burn.
- DON'T administer first-aid measures which are unnecessary or beyond your ability.

- DON'T fail to replace items used from the first-aid case.

PERSONAL HYGIENE

Personal hygiene consists of practices which safeguard your health and that of others. It is often thought of as being the same as personal cleanliness. While cleanliness is important, it is only one part of healthy living. Personal hygiene is important to you because:

- It protects against disease-causing germs that are present in all environments.
- It keeps disease-causing germs from spreading.
- It promotes health among soldiers.
- It improves morale.

PERSONAL CLEANLINESS

Skin. Wash your body frequently from head to foot with soap and water. If no tub or shower is available, wash with a cloth and soapy water, paying particular attention to armpits, groin area, face, ears, hands, and feet.

Hair. Keep your hair clean, neatly combed, and trimmed. At least once a week, wash your hair and entire scalp with soap and water. Also, shave as often as the water supply and tactical situation permit. Do not share combs or shaving equipment with other soldiers.

Hands. Wash your hands with soap and water after any dirty work, after each visit to the latrine, and before eating. Keep your fingernails closely trimmed and clean. Do not bite your fingernails, pick your nose, or scratch your body.

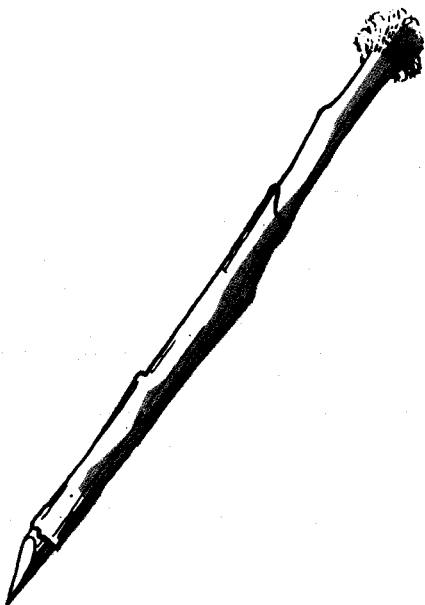
Clothing and Sleeping Gear. Wash or exchange clothing when it becomes dirty (situation permitting). Wash or exchange sleeping gear when

it becomes dirty. If clothing and sleeping gear cannot be washed or exchanged, shake them and air them regularly in the sun. That greatly reduces the number of germs on them.

CARE OF THE MOUTH AND TEETH

Regular and proper cleaning of the mouth and the teeth helps prevent tooth decay and gum disease. The most healthful oral hygiene is to clean your mouth and teeth thoroughly and correctly after each meal with a toothbrush and toothpaste. If a toothbrush is not available, cut a twig from a tree and fray it on one end to serve as a toothbrush. If mouthwash is available, use it to help kill germs in your mouth. To help remove food from between your teeth, use dental floss or toothpicks. Twigs can also be used for toothpicks.

MAKE A TOOTHBRUSH



CARE OF THE FEET

Wash and dry your feet daily. Use foot powder on your feet to help kill germs, reduce friction on the skin, and absorb perspiration. Socks should be changed daily. After crossing a wet area, dry your feet, put on foot powder, and change socks, as soon as the situation permits.

CHANGE SOCKS AND POWDER FEET



FOOD AND DRINK

For proper development, strength, and survival, your body requires:

- Proteins.
- Fats and carbohydrates.
- Minerals.
- Vitamins.
- Water.

Issued rations have those essential food substances in the right amounts and proper balance. So, eat primarily those rations. When feasible, heat your meals. That will make them taste better and will reduce the energy required to digest them. Do not overindulge in sweets, soft drinks, alcoholic beverages, and other non-issued rations. Those rarely have nutritional value and are often harmful.

Drink water only from approved water sources or after it has been treated with water-purification tablets. To purify water from **rivers or streams**:

- **Fill your canteen with water (be careful not to get trash or other objects in your canteen).**
- **Add one purification tablet per quart of clear water or two tablets per quart of cloudy or very cold water. (If you are out of tablets, use boiling water that has been boiled for 5 minutes.)**
- **Replace the cap loosely.**
- **Wait 5 minutes.**
- **Shake the canteen well and allow some of the water to leak out.**
- **Tighten the cap.**
- **Wait an additional 20 minutes before drinking the water.**

EXERCISE

Exercise of the muscles and joints helps to maintain physical fitness and good health. Without that, you may lack the physical stamina and ability to fight. Physical fitness includes a healthy body, the capacity for skillful and sustained performance, the ability to recover from exertion rapidly, the desire to complete a designated task, and the confidence to face any eventuality. Your own safety, health, and life may depend on your physical fitness.

There are lulls in combat when you will not be active. During such lulls, exercise. That helps to keep the muscles and body functions ready for the next period of combat. It also helps pass the time in the lulls.

REST

Your body needs regular periods of rest to restore physical and mental vigor. When you are tired, your body functions are sluggish, and your ability to react is slower than normal. That also makes you more susceptible to sickness. For good health, 6 to 8 hours of uninterrupted sleep each day is desirable. As that is seldom possible in combat, use rest periods and off-duty time to rest or sleep. Do not be ashamed to say that you are tired or sleepy. Do not, however, sleep when on duty.

MENTAL HYGIENE

The way you think affects the way you act. If you know your job, you will probably act quickly and effectively. If you are uncertain or doubtful of your ability to do your job, you may hesitate and make wrong decisions. Positive thinking is a necessity. You must enter combat with absolute confidence in your ability to do your job.

Fear is a basic human emotion. It is both a mental and physical state. Fear is not shameful if it is controlled. It can even help you by making you more alert and more able to do your job. Fear makes the pupils of your eyes enlarge, which increases your field of vision so you can detect movement more easily. Fear also increases your rate of breathing and heartbeat. That increases your strength. Therefore, control your fear and use it to your advantage.

Do not let your imagination and fear run wild. Remember, you are not alone. You are part of a team. There are other soldiers nearby, even though they cannot always be seen. Everyone must help each other and depend on each other.

Worry undermines the body, dulls the mind, and slows down thinking and learning. It adds to confusion, magnifies troubles, and causes you to imagine things which really do not exist. If you are worried about something, talk to your leader about it. He may be able to help solve the problem.

You may have to fight in any part of the world and in all types of terrain. Therefore, adjust your mind to accept conditions as they are. If mentally prepared for it, you should be able to fight under almost any conditions.

RULES FOR AVOIDING ILLNESS IN THE FIELD

- Don't consume foods and beverages from unauthorized sources.
- Don't soil the ground with urine or feces. (Use a latrine or "cat-hole.")
- Keep your fingers and contaminated objects out of your mouth.
- Wash your hands following any contamination, before eating or preparing food, and before cleaning your mouth and teeth.
- Wash all mess gear after each meal.
- Clean your mouth and teeth at least once each day.
- Avoid insect bites by wearing proper clothing and using insect repellents.
- Avoid getting wet or chilled unnecessarily.
- Don't share personal items (canteens, pipes, toothbrushes, washcloths, towels, and shaving gear) with other soldiers.
- Don't leave food scraps lying around.
- Sleep when possible.
- Exercise regularly.