BEAT THE HEAT
A RADICAL SURVIVAL HANDBOOK

PEOPLE'S LAW BOOK

COMMUNITY ORGANIZATION GUIDE

FIRST AID FOR ACTIVISTS

FIREARMS AND SELF-DEFENSE

By the Berkeley International Liberation School and the People's Law Book collective, with the help of Bay Area members of the National Lawyers Guild.

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First Aid for Activists

169 Introduction

171 An Introduction to Physiology
   The Respiratory System
   The Circulatory System
   The Nervous System

179 Diagnosis and Treatment
   Closed Chest Heart Massage
   and Artificial Respiration
   Shock
   Bleeding and Bandaging
   Traumatic Injuries
   Broken Bones
   Sprains, Strains, and Dislocations
   Transportation of the Injured
   Burns
   Gas and Mace
   Heat Prostration
Seizures
Infection
Conditions of Oppression
Street Drugs
Diseases of Communal Living

238 Every Revolutionary a Medic
242 Appendix A
244 Appendix B
246 Appendix C
First Aid for Activists

This book was written collectively by a group of doctors, nurses and medics in the San Francisco Bay Area. Many of us are active in the Medical Committee for Human Rights, a national organization of radical health workers committed to changing the entire health care system in this country. The medics are people who, with no prior professional training, learned medical skills, including first aid, used them during demonstrations and whenever they came across injured people, and taught medical skills through the Berkeley International Liberation School for two years.

The first version of this book was a small pamphlet, Medical Cadre, printed jointly by MCHR and the ILS three years ago for the Black Panther party "United Front Against Fascism" conference. At that time, police attacks during demonstrations and on movement headquarters were occurring frequently, and for several years the health movement concentrated a lot of its energy on providing medical aid in those situations. The techniques that were developed were spread through small pamphlets, articles in underground papers, and in medical skills classes. This book comes out of that experience; the techniques that were developed are applicable whenever someone has been injured, whether in an auto accident or a demonstration.

For several reasons, this book is different from others dealing with first aid. First, our emphasis is on practicality—what to do in each medical situation, in general, non-jargon terms, with suggestions for improvising equipment so the reader need not be dependent on fancy, expensive supplies. Second, there is a major emphasis on the fact that anyone can learn basic medicine. A major problem with the health care system in this country is the mystified, elite attitude that it has created about medicine. Few doctors explain the patient's illness or injury to her in terms she can understand. This attitude also implies that medical knowledge is special and that a person must go through years of specialized training to understand medical problems. This is reinforced by the
fact that most doctors are middle- to upper-class white males. We believe that everyone can and should learn as much medicine as possible, for her own sake and the better to serve the community in which she lives. Our experience has shown us that anyone can learn the material in this book and use it effectively.

Finally, there is a political emphasis in this book which makes it different from traditional medical books. Medicine is not a neutral science; like practically every other body of knowledge, it can be used to help people or to oppress them. We hope that as you learn to use medical skills you will also become a member of the health movement in this country.

We would like to caution you about two things. First, just reading this book will not teach you about first aid. You have to take a course and practice, practice, practice, because you will be dealing with people’s lives. Even then, you must keep in mind that what you know is only emergency first aid. In many situations this will not be a substitute for a doctor’s knowledge, and we have tried in the following pages to point out what you will and won’t be able to deal with. You must exercise good judgment, try continually to expand your knowledge, and be ready to call a doctor whenever necessary.

Second, in some states you can be sued if in practicing first aid you cause further harm to an injured person. California has a “good samaritan law” to prevent such suits, as do most other states—but not all. Check with a lawyer regarding the level of legal protection for “good samaritans” in your state.
An Introduction to Physiology

The most important systems to understand in first-aid physiology are those which supply oxygen to the body and the brain. They are the systems that are most likely to cause death if injured. These systems are the respiratory system, the circulatory system, and the nervous system.

The science of these is very detailed, but the details are unnecessary for giving good first aid. It is important, however, to understand the broad concepts of these systems.

THE RESPIRATORY SYSTEM

The respiratory system brings air through the nose, mouth, throat, windpipe (trachea), and into the lungs, where it performs its main purpose of transferring oxygen into the blood system. The air, which contains 20 percent oxygen, first enters through the mouth and nose; although this fact may seem unimportant, it is not, because medics who forget to clean out an unconscious person’s mouth or throat may let the person die unnecessarily from suffocation. Air continues down the throat, which divides into the windpipe and the esophagus. A flap called the epiglottis covers the windpipe. The epiglottis is opened by reflex for breathing and is closed during the act of swallowing to prevent food from entering the windpipe, which divides into a right and left bronchus. Each of these bronchi leads into a lung, where they continue branching until the tubes end in the microscopic air sacs called the alveoli. These air sacs are the only place where oxygen can be transferred into the blood.

As the bronchial “tree” branches, it becomes a hollow air tube surrounded by smooth muscle. When someone goes into a bronchial spasm, such as during a tear-gassing or an attack of asthma, it is these muscles which are in spasm, thereby preventing air from getting into and out of the air sacs. These bronchial muscles dilate in response to certain drugs, such as epinephrine.

Inspiration (drawing air into the air sacs) starts with the expansion of the chest wall, using chest muscles which are held in place by the
The Respiratory System

ribs. This chest wall expansion, plus the lowering of the diaphragm muscle (which separates the chest cavity from the abdominal cavity), creates a vacuum between the chest wall and the lungs. The lungs then expand to fill this vacuum. When the lungs expand they open up air sacs, which suck in air much like a bellows sucks in air when it is open.Expiration (emptying the lungs) happens in the opposite way. This process is passive. It depends on the elasticity of the chest wall and the lungs, and on the relaxation of the diaphragm muscle, to push the air out of the lungs. Normal breathing rate is anywhere from eight to fifteen breaths per minute. If a person is taking fewer than eight breaths per minute and is not fully alert, give artificial respiration while checking for the reason for the slow breathing (e.g., heroin overdose).

THE CIRCULATORY SYSTEM

The circulatory system consists of the heart, blood vessels, and blood. Its function is to carry oxygen and food to the tissues; the oxygen and food are then exchanged for carbon dioxide and waste products. The heart is a pump which drives the blood around the body through the blood vessels. The blood vessels are a system of closed hollow tubes consisting of three types: arteries, veins, and capillaries. The thick-walled arteries take blood from the heart and progressively decrease in size until they become microscopic, one-celled capillaries, where the exchange of oxygen takes place. These capillaries have special qualities which allow them to vary in diameter and in the ease with
This diagram shows the major arteries and veins in the body. The veins, shown here as solid dark vessels on the right side, are duplicated on the left side and the arteries, shown here in outline on the left, are duplicated on the right.
which blood substances can pass through their walls into the tissues. The capillaries gradually increase in size until they become thin-walled veins, which take the blood back to the heart.

The arterial system is a high-pressure system, and the venous system is low pressure. The high arterial pressure supplied by the heart is needed to push the blood around the body and also to overcome the constricting pressure of the artery walls, which are made of muscle. If the heart does not supply enough pressure the muscular arteries will clamp shut, and then the blood can’t get through. Blood pressure is the measure of how hard, and how much blood, the heart is pumping. There are two parts to blood pressure measurement, systolic and diastolic. For example, if a person’s blood pressure is 120/70, then we know that the systolic pressure is 120. This is the measure of the pressure needed to close off a major artery. The diastolic pressure is the low-pressure number (70); it is the blood pressure when the heart is “between beats.” For first-aid purposes, the systolic pressure is our main concern. Normal blood pressures range from lows of 90/60 to highs of 150/90. If a blood pressure drops below 90/60, start worrying. (See the section on shock.)

With each beat of the heart, the arteries expand. This elastic expansion with each beat can be felt and is called the pulse. The pulse is important for telling how fast the heart is beating. The normal resting pulse range is 56-90. The most useful pulses to know are the neck (carotid), groin (femoral), wrist (radial), and arm (brachial). The groin and neck pulses are the strongest and easiest to find in an emergency, especially when a patient is in shock. The best way to find a pulse is to press with the second and third fingers over the area in which you are feeling for it. The location of the pulse varies from person to person, so you must practice on people of all sizes and shapes.

**HOW TO TAKE BLOOD PRESSURE**

Blood pressure is measured in two ways—with a blood pressure cuff and a stethoscope or with the blood pressure cuff alone while manually taking the wrist pulse.

1. Wrap the gauged rubber cuff around the upper arm, placing the stethoscope between the cuff and the artery at the inside fold of the arm.

2. Pump up the cuff to 200 mm, constricting the artery.

3. Begin to release the trapped air inside the cuff by opening the valve.

If you have pumped up the cuff beyond the systolic pressure and if you listen over the brachial artery you will at first hear nothing and
These illustrations show medics applying pressure with the thumb to pulse points to stop bleeding. To take someone’s pulse, use your finger-tips.

Wrist (Radial Artery [A] and Ulnar Artery [B])

Foot (Anterior Artery [A] and Posterior Artery [B])

Groin (Femoral Artery)

Neck (Carotid Artery)

Pulse and Pressure Points
1. Wrap cuff around upper arm of patient with gauge in your hand.

2. Place stethoscope between the cuff and the artery at the inside fold of the arm.

Positioning a Blood Pressure Cuff
then you will hear a thumping sound—the systolic pressure. This is the point at which the cuff pressure equals the pressure on the artery and blood begins to move through the artery. As you gradually decrease the cuff pressure, the thumping sound will disappear at some point. The point on the gauge at which this happens is called the diastolic pressure.

If you have only a pressure cuff, and no stethoscope, you will only be able to get the systolic pressure. The procedure is much the same.

1. Pump up the cuff until the gauge reads 200.
2. Slowly release the air trapped in the cuff.
3. Have your fingers positioned on the wrist.

When the pulse can be felt for the first time, the gauge will indicate the systolic pressure. This is not quite as accurate as the stethoscope method, but it is reasonably accurate and is good in an emergency. The systolic pressure, combined with pulse rate, is a good index of how effectively the circulatory system is working.

THE NERVOUS SYSTEM

The nervous system is composed of two parts, the voluntary and involuntary nervous systems. Both parts are regulated by the brain, which send messages down the spinal cord and out to the nerves. These nerves branch off from the spinal cord and carry the brain’s messages to the rest of the body, and sensory input (pain, heat, etc.) from the body back to the brain.

The involuntary system also prepares the body for “flight or fight.” It gets the adrenalin flowing. In times of extreme anxiety the involuntary system causes many of the blood vessels and capillaries to dilate, and it causes the heart rate to speed up. Consequently, not enough blood gets to the brain, and “blackout” or fainting occurs (see the section on shock for more details). The involuntary system is strongly affected by mental state.

The voluntary nervous system comprises those nerves over which you have conscious control. It controls muscle movement for arm, leg and face. It also contains sensory nerves, such as those for pain and touch. Your muscle and tendon reflexes are also part of the voluntary system. Some body functions, such as respiration, are controlled by both the voluntary and involuntary systems working together.
Diagnosis and Treatment

The medic must develop an approach to an injured patient which is calm, thorough, and consistent. She must be able to function in spite of her own nervousness; every physician gets nervous, but the important first steps in emergency treatment must become so familiar to the medic that they can be carried out automatically.

When the medic approaches a patient, she must think of the following points, in this order:

*Is the patient alive?*

Dying after an injury is a progression from the awake, aware state to death. A medic may reach an injured person in any stage of dying. If the medic has more than one patient to take care of, it is crucial to be able to recognize which patients the medic can save and which are beyond help. The medic must be able to recognize when a person is irreversibly dead, so that she can use her time to prevent death in other patients. (Irreversible death is defined as the condition in which the patient has no spontaneous breathing and no heartbeat for five minutes.) Usually the pupils will be very wide (dilated) and will not constrict when a bright light is directed onto them (fixed pupils). The fixed, dilated pupil, which occurs from three to five minutes after breathing and heartbeat stop, indicates that brain damage has occurred. Therefore, if you reach a person with no respiration, heartbeat, or pulse, who has fixed, dilated pupils, and who has been like that for more than five minutes, it will be almost impossible to bring her back to life. If you reach her and you don’t know how long she has been like that, if no one else is seriously injured, and if you can treat her without endangering yourself, then it is reasonable to try to resuscitate her. If after fifteen or twenty minutes you haven’t been able to restore breathing or heartbeat, you should consider her dead.

*Is her heart beating?*

Feel for a pulse in the major arteries, not in the wrist, because the wrist pulse is often weak after an injury because of shock. Feel the neck for the carotid pulse or the groin for the femoral pulse. Trained medics
should listen for the heartbeat, as well, with a stethoscope or with the naked ear; often the heart will be beating, but the pulse will be too weak to feel.

Is she bleeding?

Blood loss can be venous (from the veins) or arterial (from the arteries). Venous bleeding is maroon (dark reddish-brown) in color, doesn’t spurt out, and is usually easily stopped, unless it is deep in an area where it is hard to apply direct pressure. Arterial bleeding spurts out under pressure each time the heart beats; the blood is bright red and is harder to stop. Moreover, severe bleeding can be concealed, as when a blood vessel is torn inside the leg. The only clue to this concealed bleeding is rapid swelling of the injured part (one to two minutes) or loss of pulse below the injury. Concealed bleeding can also occur in the chest or abdomen; surgery is required to stop this kind of bleeding. (See the section on internal bleeding.)

Is she in shock?

Shock is a condition in which not enough blood (which carries oxygen) gets to the brain or other vital organs. The role of the medic is to get blood to the brain by any means necessary. The main symptoms of shock are the following:

(1) Increased heart rate, with a pulse greater than 110; if the pulse is weak when it was previously strong, it is also suggestive of shock.

(2) Decreased blood pressure. People usually begin going into shock when the blood pressure drops to 80/50 or less.

(3) Cool, clammy, pale skin.

(4) Loss of consciousness, dizziness, confusion, bizarre behavior.

Are there other injuries?

Are there any broken bones, nerve or spine injuries, head injuries, sprains, cuts, etc.?

Stated simply, the medic should think of the following things in order: (1) breathing, (2) heartbeat, (3) bleeding and shock, (4) other injuries. Sometimes an overall picture can be gained without it being necessary to think of each of these. For instance, if a patient has blood spurting from a cut artery, it is obvious that her heart is working. If a patient is awake and moving around, she is breathing and her heart is beating. The medic should get in the habit of thinking about and evaluating all of the above points in every patient. If this is done, she will be quick to recognize the patient who is not breathing and whose heart is not beating.

The patient who is not breathing requires mouth-to-mouth resuscitation (artificial respiration). It is extremely important for the medic to
take a first-aid course in which mouth-to-mouth resuscitation is taught. A patient who has no pulse or heartbeat needs external cardiac massage (closed chest heart massage). This, too must be thoroughly familiar to the medic through practice in a first-aid course. The medic will be the only trained person approaching an injured patient in violent situations, and very often in accident situations she will be there before the hospital or police ambulance arrive. The other people around will probably be very nervous and will feel useless and frightened. The medic should enlist their aid. She should calmly request each person to do some job. For instance, with a severely wounded patient who is not breathing, the medic can start breathing for the patient, but should instruct a bystander in mouth-to-mouth resuscitation. She can then ask another bystander to hold pressure on a bleeding spot, which will free the medic to evaluate the damage. She can ask still another bystander to get a car to transport the patient to a safer place, and she can ask another to keep lookout. In this way, the medic lets everyone know that she knows what to do and that she is in charge, while at the same time she keeps everyone busy and has that much more help in taking care of the patient. Calmness and confidence are crucial to keeping the situation under control.

CLOSED CHEST HEART MASSAGE AND ARTIFICIAL RESPIRATION

After finding an injured person who is not breathing and whose heart has stopped, you must perform these functions for the patient until she either revives or is pronounced dead. You will do the work of the lungs with mouth-to-mouth resuscitation, and the work of the heart with closed chest massage. You can provide enough oxygen because your body has used only one-fifth of the oxygen inhaled with each breath. Therefore, when exhaling you will not overpower the patient with carbon dioxide and will provide enough oxygen to revive her.

Heart massage begins with a powerful blow to the sternum, or breastbone—the blade-shaped bone in the center of the chest to which the ribs are attached. This is frequently enough to start the heart working on its own. The blow should be very hard; it should be delivered with the side of a clenched fist. Adjust the force to the size of the person. Most women should use all of their strength, except on children and people smaller than themselves, while men should use some restraint according to their strength, especially on children and small persons. Common sense will help in determining the force of the
Position of Medic's Hands and Body for Closed Chest Heart Massage

Notice that the body is in position for the "rocking" motion required, and that the heel of one hand is on top of the other, over the patient's breastbone.

1. Turn patient's head to side and clean out mouth.
2. Tilt patient's head all the way back and open mouth. Place jacket or something under neck to keep head back, if possible.

Artificial Respiration
Open and Closed Airways

1. Normal conscious person. Air passage is open.

2. Person whose breathing has stopped. Air passage closes because normal reflexes are no longer working.

3. Same person after medic has tilted head all the way back. This opens up the passage so that artificial respiration can be performed.

—You may break a rib, but don’t freak out. Broken ribs are not as serious as a heart that has stopped. Remember, you punch only once, at the beginning of this treatment.

You must next pump the person’s heart for her. To pump the heart, you place the heel of one hand on the heel of the other at the same place as the initial blow to the sternum. Then, locking your elbows straight, push the sternum with a rocking motion. Rock your whole body from the knees. You must depress the sternum with enough force to push blood out of the heart (about one and a half inches). If you are working alone, the rhythm should be six heartbeats followed by two breaths. If one person is doing heart massage and another is doing the artificial respiration, the rhythm should be four heartbeats followed by one breath.
To do mouth-to-mouth resuscitation, first turn the patient's head to the side to clean mucus and vomit out of her mouth. Then tilt the head back so that the chin is pointing upward. When the head is tilted back in this way, it creates an open airway. Then pinch the nostrils shut and cover the person's mouth with your own, creating a complete seal. Breathe into her mouth until her chest begins to rise (the stomach may become bloated, but this is nothing to worry about). Lift your mouth off and let the air escape. This is done twice if alone, and once if you have help; then you return immediately to the heart massage.

An important thing to remember is to establish a rhythm and to keep with it. You should do sixty heartbeats and twelve to fifteen breaths per minute.

You will be much less tired if someone is helping you, so you should teach one (preferably both) of the jobs without losing the rhythm. Be concise, as you have only the short six seconds of the heart massage cycle in which to talk. Do not stop the rhythm in order to teach—do them both simultaneously. Use as short a time as possible to teach your helper; artificially sustaining a body is very tiring.

If the patient hasn't revived after fifteen to twenty minutes, she probably cannot be saved. It is not necessary to continue unless someone has gone for help. If the person has not been breathing for more than three to five minutes, there has already been brain damage, so it is probable that artificial resuscitation is not going to help.

All this may sound difficult, but once learned well, it becomes automatic. There have been numerous cases in which newly trained medics have saved lives—in accidents and drug overdoses—because they were trained to perform artificial respiration and heart massage.

SHOCK

The symptoms of shock are: (1) cold, clammy, pale skin, (2) weak, rapid pulse—over 110 beats per minute; (3) decreased blood pressure—around 80/50 or less, (4) loss of consciousness, dizziness, confusion, or bizarre behavior, such as severe agitation, refusal to accept the injury as real, etc.

Shock is a strange phenomenon which doctors do not fully understand. It is very dangerous, and people can die from it even if their injuries are not very serious.

Shock is caused by three different mechanisms: (1) increased blood vessel volume due to blood vessel dilation, causing blood to fall to the legs; (2) decreased blood volume from external or internal bleeding or
other fluid loss; (3) inability of the heart to pump enough blood to the brain.

All of these causes of shock have the same effect—a decreased effective blood pressure in which not enough blood gets to the brain. This may cause unconsciousness, confusion, or bizarre behavior, as well as setting off a series of reflexes which cause the heartbeat to increase and vessels in the skin (and other parts of the body) to clamp down (constrict). This clamping down sends the remaining blood to the brain and to several other vital organs. The constriction of blood vessels in the skin causes it to become cold, clammy, and pale.

Shock resulting from increased blood vessel size occurs in spinal or head injuries. It also occurs during septic shock (shock resulting from a severe infection). In both cases the reflexes regulating blood vessel size have been interfered with, either by injury to the nervous system or by the toxic materials from the infection. This kind of shock can also be due to a severe allergic reaction which may be caused by such things as a bee sting or a penicillin shot.

Decreased blood volume results from severe bleeding, as in gunshot wounds. Bleeding can be external or internal, and shock is often a sign of internal bleeding. This kind of shock can also result from fluid loss, as in burns, diarrhea, or severe, persistent vomiting.

The inability of the heart to pump blood to the brain is the third cause of shock. This can be caused by a cardiac arrest (in which the heart stops pumping), by a heart attack which weakens the heart, by a wound to the heart directly, or by an irregular heart rhythm.

TREATMENT OF SHOCK

All treatment of shock is aimed at getting blood with oxygen to the brain.

1. Lay the person flat, with her feet raised four to six inches.
2. Make sure that the person can breathe comfortably and that her airway is not blocked by vomit or other material.
3. Watch the urine output. When a person is in shock, the blood gets shunted past certain organs, and the kidneys are bypassed. If this occurs for too long, the kidneys are damaged. If urine output goes below a half cup every four hours, kidney damage is occurring and you should take the person to the hospital.
4. Give saline solution (one tablespoon of salt or baking soda to one quart of water) orally if the person is conscious and if the wound is not in the abdomen. (Note: Giving oral fluids to someone with a possible tear in the intestine will cause the fluids and waste
products to pour out of the hole into the abdomen, causing mas-
sive infection and, possibly, death.) Salty fluids are absorbed
quickly into the bloodstream and help increase the blood volume.
Give as much as the person can stand.

In shock resulting from blood loss, further loss must be avoided.
External bleeding can be stopped in one of the following ways: (a)
firm, direct pressure on the wound; (b) pressure applied at several
places on the body (pressure points); (c) a tourniquet applied between
the injury and the heart, in the case of a limb injury. (See the section
on bleeding and bandaging.) Internal bleeding usually requires surgery,
and constitutes an immediate emergency.

If blood loss is excessive (four to six cups, depending on the size of
the person), replacement must be made immediately. This usually
requires the intravenous replacement of blood at a hospital.

Fluid loss from burns may be reduced by covering the injured area
with sterile dressings. A saline solution as described above should be
given. If the fluid loss is severe, intravenous fluids may be necessary.
(See the section on burns for more details).

Shock caused by an allergic reaction may be reversed by administra-
tion of the proper drug (usually 0.5 cc of 1:1000 epinephrine solution)
by a physician.

Much can be done to prevent shock not due to serious blood or fluid
loss. Body reflexes and mental state are interdependent in initiating
shock. The composure and attitude of the medic are key. She must
quickly move to keep the patient warm, comfortable, and free from
pain and anxiety to prevent shock from occurring.

Shock is serious: it can kill. If at all possible, anyone in shock should
be taken to a hospital. If for political reasons this is dangerous, try to
reverse the shock by using the methods described. However, if shock
does not wear off within one to two hours, or if it gets worse (blood
pressure falling, urine output falling, pulse rising), the patient must be
taken to a medical facility.

BLEEDING AND BANDAGING

Any case of severe bleeding must always be evaluated for shock.
Depending on size and weight, a person can afford to lose four to six
cups of blood “safely.” One cup of blood looks like a huge amount, so
the medic should practice by pouring cups of cranberry juice on the
ground and on some rags in order to get to know how much half a cup,
three cups, one quart, etc., looks like. If a lot of blood has been lost, or
If the person is sinking deeper and deeper into shock, then she must be taken to a hospital immediately for blood replacement. The first signs of shock are the best clue to the seriousness of blood loss.

BANDAGING

Pressure Bandages

The first thing to do when treating wounds is to stop the bleeding. This can almost always be done by applying a pressure dressing for five to fifteen minutes and by elevating the wound. A pressure dressing consists of four-by-four gauze sponges or a sanitary napkin or a pile of cloth about one inch thick placed on top of the wound and held there.

Note the way the Kling, cloth, etc., is wrapped diagonally one way up the limb, then diagonally back the other way. For a wound, a pad of four-by-four-inch gauze sponges, sanitary napkin, etc., would be underneath this wrapping. For a broken bone, a splint would be underneath. This method of wrapping prevents the dressing from turning into a tourniquet.
by a Kling (a stretchable rolled gauze bandage that clings slightly to itself), Ace bandage, adhesive tape, cloth strip, or whatever is available. If possible, place a sterile gauze sponge underneath the dressing, but this is not vital. If there is nothing available, use your hand, pressed firmly either on the wound or on the pressure point above the wound. There is no danger of infection for four to six hours, which should be plenty of time to get the person to a hospital or aid station.

Some medics carry peroxide, Phisohex,* and all kinds of sterile dressings with them, and attempt to clean out and dress wounds while on the street. This really should not be attempted, particularly in the middle of a riot, where the extra time can result in both medic and patient getting beaten up and arrested. The medic’s job is to stop the bleeding and to move the patient to an aid station or a hospital, if necessary. The doctors, nurses, and medics there are much better equipped to clean out the wound, give antibiotics, or suture the wound, if necessary. This also frees the medic to return to the streets.

**Tourniquets**

Tourniquets should rarely be used, contrary to what is taught in most high school first-aid classes. One main exception is the case in which a broken bone is protruding from the skin and has sliced veins or arteries, causing bleeding. A tourniquet is placed on the limb above the break. Then the bone is splinted and a light dressing put over the wound. Another exception is when a major artery has been cut and the person has lost a lot of blood and cannot afford to lose more.

A tourniquet is made by pulling something tightly around the limb till the bleeding stops. This can be a scarf or a strip of cloth, tied with a stick through the center. The stick is twisted until the tourniquet stops the bleeding, and it is then taped down. A belt, rubber tubing, rope, etc., can be used instead, if necessary.

Once a tourniquet has been placed on a limb, do not loosen it until the person has been taken to a medical facility. Write on the tourniquet what time you put it on. It can safely be left on for four to six hours, particularly if the limb is packed in ice or cold towels to slow down the

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*Recent research indicates that hexachlorophene, the bactericidal agent in Phisohex and in such antibacterial soaps as Dial, may be dangerous if used extensively. The U.S. government is now considering making hexachlorophene available by prescription only and is studying the possibility of its causing nerve damage. It is recommended here as a first-aid measure in cleaning wounds to avoid serious infection. It should not be used on large areas of skin and should be washed off.*
Tourniquet
This tourniquet can be made with a strip of cloth and a stick.

1. Wrap cloth around limb above wound and tie once.
2. Place a stick over the knot and tie again.
3. Twist stick until bleeding stops.
4. Tape or tie down ends of stick to hold tourniquet in place and prevent resumption of bleeding.
metabolic processes. Loosening the tourniquet will only cause further blood loss and shock.

Sometimes a person will have several bleeding wounds. The medic must evaluate which is the most serious and stop that one first. Remember that arteries bleed much faster—look for spurring, bright red blood. Veins bleed slowly, and the blood is maroon colored. The exception to this is a head wound. The veins and arteries in the head are very tiny, and a blow will cut several of each. Head blood is medium red and flows rapidly. If the patient is conscious, she can help by holding a pad firmly over one wound while you bandage another.

**Summary of Bandaging**

A basic pressure-dressing is composed of some kind of padding to provide the pressure (a sanitary napkin, a wad of four-by-four gauze sponges, a pile of cloth, etc.) and something with which to hold it on the wound (a Kling, tape, scarf, etc.).

A temporary “suture” can be made by using a “butterfly” bandage—either store-bought or improvised (take a snip of adhesive tape and cut it in two indentations in the middle)—to hold the edges of the wound together, making sure no adhesive touches the wound.

Bandages on the arm and leg should be wrapped diagonally up one way and then down the other, to avoid turning the pressure dressing into a tourniquet.

All chest bandages should be airtight (you can use aluminum foil, a plastic bag, Vaseline gauze, the plastic side of a sanitary napkin, or even a wad of blood-soaked cloth) in order to prevent air from getting into the chest cavity. (See the section on chest injuries.)

Bandages for eye injuries should be intended only to cover the wound, and not to apply pressure. (See the section on eye injuries.)

A tourniquet is anything which completely cuts off the circulation—rubber tubing, a belt, a scarf with a stick, etc. Bleeding should stop almost immediately.

**INTERNAL BLEEDING**

Internal bleeding is bleeding into the tissues, head, abdomen, or chest from ruptured (torn) blood vessels or from organs such as the spleen, liver, or kidney. Internal bleeding can be obvious or hidden. Obvious internal bleeding occurs in an extremity of the body. It is indicated by rapid swelling of the arm or leg within one to five minutes after the injury occurs. With injuries to the hip or thigh, you must keep careful watch of blood pressure and pulse to detect shock early; enough blood can be lost into the tissues of the thigh after a fracture or a bullet.
wound to cause shock and death. Treatment consists of stopping the bleeding with a pressure dressing or with a tourniquet, if necessary.*

Hidden internal bleeding is hard to detect and must be suspected in any serious injury. The clues to look for are:

1. Any injury in which internal organs receive a strong, blunt blow, or any penetrating injury (such as those caused by a knife, a bullet, or shrapnel). Hidden internal bleeding is especially likely to occur in the liver (on the right side of the body) and in the spleen (on the left side). If the ribs are fractured by a blow to the chest, they can pierce downward and tear the liver or spleen.

2. Increasing symptoms of shock.

3. Tenderness in the area over the internal organs. (See the section on abdominal injuries.)

4. Blood in the urine. This can indicate a ruptured kidney.

5. Bloody vomit. This can indicate a rupture of the stomach. If there is internal bleeding, surgery may be necessary; therefore the patient must be taken quickly to a hospital.

TRAUMATIC INJURIES

HEAD WOUNDS

A head wound is the most common of the serious wounds that can be caused by auto accidents or by clubbing. The arteries and veins on the scalp are tiny and numerous, so one blow can break a number of them and the resulting bleeding will be very heavy, causing additional setbacks in the patient.

What to Do

First get the blood out of the patient’s eyes if necessary, then hunt for the wound if it is not obvious. Since the entire head will often be blood-soaked, you must sear through the hair, sponging gently with a four-by-four gauze sponge until you find the sources of bleeding.

Next, check for skull fracture. Gently press around the edge of the wound. A person’s skull is as hard as a rock—unless it is broken. It will

*A car was in a serious accident not long ago on the East Coast, on a highway late at night. One man had a very deep thigh wound. A woman in the car who had just completed a first-aid course (and who was badly injured herself) tied a belt around his leg as a tourniquet. She saved his leg—and his life—by doing so.*
Basic Head Bandage

1. Place pad [A] of cloth, sanitary napkin, etc., directly over wound. Start wrapping Kling [B] around head in easiest way to keep dressing on firmly. Tuck in end of Kling under wrapping somewhere, if patient has only one wound.

2. If patient has two head wounds, start as (1), then place pad over the second wound [C]. Fold Kling sideways [D] (a half hitch) and start wrapping around other wound.

3. Tuck in end [E]
not “give” or sink in under gentle pressure. If there is a noticeable fracture, lightly bandage the wound and rush the injured person to the hospital. This is an extreme emergency.

Lack of indentation of the skull does not mean that no fracture exists. Only an X-ray will show it. All head wounds beyond a simple "bump" should be X-rayed.

If there is no obvious fracture, a pressure dressing can be put on the wound. If the wound is on the forehead rather than in the hair, adhesive strips (butterfly sutures) under the pressure dressing will hold the edges of the skin together and help stop the bleeding. The patient should then be brought to a medical facility.

At the first-aid station other steps must be taken. In many cases the area around the wound will need shaving and the wound will have to be cleaned and sutured. If the patient cannot be taken to a hospital for political reasons, she should be closely watched by the medic. If the medic observes that the patient's injury shows signs of serious brain involvement, the patient must be taken to a hospital.

Concussion

A concussion is a temporary blackout after a blow to the head; there is amnesia for the period of time immediately following the blow, but normal memory returns within minutes. A concussion involves no brain damage, but the patient must be watched and must remain in bed for at least twenty-four hours while being observed for signs of a more serious condition. Concussions are common injuries among children, who fall off their bikes, out of trees, etc. Any injury to a child's head that seems to be more than just a "bump" should be X-rayed.

Blood Clot

A blood clot may form inside the skull if a blood vessel has been ruptured, and, since the skull cannot expand, the resultant pressure upon the brain will cause severe brain damage. Continued slow bleeding from a damaged blood vessel can also raise the pressure. The signs of increased pressure on the brain are:

1. An abnormal state of consciousness (discussed below).
2. Pupils that are (a) unequal in size; (b) completely dilated or large in normal light; (c) not reactive to light—that is, they do not become smaller when a flashlight is shined on them in the dark; (d) any combination of these.
3. Loss of function, or spastic function, of arms, hand, leg, etc., on one side or the other of the body.
4. Persistent vomiting, often very forceful. (After any serious injury
vomiting once or twice is common; the vomiting associated with a blood clot is persistent and forceful.)

These four groups of signs must be looked for every two hours for a twenty-four-hour-period after a head injury resulting in loss of consciousness. If a medic observes any of these signs, she should call for immediate hospitalization of the patient.

State of Consciousness

State of consciousness is a complicated subject. The alert state is at one end of the consciousness spectrum, and deep coma is at the other end. The various states are as follows:

1. *Alert*. The patient is awake and well oriented.
2. *Asleep*. The patient is unconscious but can be roused to the alert state.
3. *Confused*. The patient does not know where she is, what time it is, who she is, what she ate for breakfast, etc.
4. *Stupor*. The patient moves very slowly and is slow to respond; she is sluggish and sleepy.
5. *Semi-coma*. The patient is unconscious, but with much prodding she will respond to simple commands or will make unconscious motions.
6. *Coma*. The patient is unconscious and cannot be aroused, but shows the pupillary reflex and pulls her leg away if pinched very hard on the foot (deep pain reflex).
7. *Deep coma*. The patient is unresponsive to deep pain, and the pupillary reflex is absent.

A patient in states 1 through 4 may be suffering merely from a concussion. She must be watched closely. If she moves from a state near "alert" to a state closer to "coma" (for example, if she is asleep during one examination, and an hour later she is confused and perhaps still asleep), then her condition is worsening. A patient who is in any kind of coma (states 5, 6, or 7) must be rushed to a hospital.

A medic must examine the patient at least once every two hours. She must wake the patient if she is asleep; she must ask her questions to determine whether she is confused; and she must take her to a hospital at the first sign of deterioration or the first time that her pupil reaction or muscle function seems impaired.

A coma may be due to a head injury, but it may also be due to other things, such as diabetes, heart attack, stroke, or drug overdose. Anyone found in a coma must be taken to a hospital immediately.

If blood is seen in the ear canal and if it did not drip there from a scalp wound, then it is a sign of a skull fracture. Black-and-blue marks
Foreign Object in Eye

1. Inspect eye to locate particle. It may be under lower lid. Remove with clean tip of cloth.

2. To inspect under upper lid, place pencil, etc., over lid, holding lid by the eyelashes.

3. Roll lid back up over pencil and have patient roll eye so that you can see the whole surface. Remove particle as in (1).
behind the ears are also a sign of skull fracture. Such cases require an X-ray of the skull for proper evaluation.

Other signs to watch out for, in the days following a blow to the head, are nausea, vomiting, headache, dizziness, and blurred vision. If any of these symptoms occur, the possibility of serious damage is very real, and the patient must be more closely examined in regard to consciousness and nerve function changes.

EYE INJURIES

Eye injuries should be seen by a physician. Probably the most important thing to remember is to keep the injured eye covered with a sterile dressing (if you have one). Irritants to the eye (gas, small particles, etc.) can be removed by irrigating the eye with a lot of water or with a saline solution. Work from the inside corner (near the nose, where the tear ducts are located) toward the outside corner for about ten minutes. This keeps the irritant from being washed back into the tear ducts.

To remove particles that do not wash away, inspect the upper lid by holding the eyelashes and placing a pencil on the outside of the lid. Pull the eyelid over the pencil and have the patient look down as you remove the particle with a clean bandage, a piece of cloth, or a Q-tip twisted into a point. (Also pull down lower lid for inspection.)

If an object is embedded in the surface of the eye, cover the eye without applying pressure. Cover both eyes if the person is not alone and does not need to see. Place a four-by-four gauze pad over the eye

Lightly place four-by-four-inch gauze sponge or piece of cloth over eye and tape at corners.

Eye Bandage for Something Embedded in Eye
1. Lightly place four-by-four-inch gauze sponge [A] over injured eye. Wrap Kling loosely around it, leaving a tail [B] hanging over good eye when you start.

2. Continue wrapping Kling loosely and tuck end in. Then roll tail up and tuck in above bandage [C], leaving good eye exposed. Write the condition of the injured eye on bandage or on person's cheek.

Eye Out or Eye Crushed Bandage
and tape it at the corners. The bandage keeps the eye clean and at rest.

If an eye is out of the socket, or if it has any kind of injury other than an embedded object, the bandaging procedure is as follows: Two four-by-four gauze pads are placed over the eye and fastened with a Kling. Leave a tail hanging over the uninjured eye, and wrap the rest around the head without applying pressure. The tail that was saved at the beginning is then used to tie the bandage out of the way of the uninjured eye, leaving the patient able to see.

After bandaging an injured eye, the medic should send the patient to see a physician. Speed is very important here, and may make the difference between loss of sight and saving the eye.*

CHEST INJURIES

Most chest injuries are serious and are difficult to treat in the street. However, if you understand the physiology of the chest, there are some simple actions you can take that may save someone’s life. Breathing depends on (1) an intact chest wall (ribs, muscles, etc.), (2) intact lungs, and (3) an open airway. The destruction of the lung-chest wall expansion mechanism will disrupt breathing. There are several ways in which this disruption occurs.

Sucking Wound (External Pneumothorax) □ A sucking wound is a condition that occurs when the chest wall has been penetrated by some object, such as a knife, a bullet, or shrapnel. The hole produced by the object becomes a one-way valve through which air is sucked directly into the chest from the outside because of the normal vacuum but is not pushed out again when the wounded person exhales. As air builds up between the lung and the chest wall, it forces the lung to collapse. This can be prevented by quickly putting a covering over the hole in the chest, so that no more air can get in. The best material for this purpose is a Vaseline gauze pad, which creates an airtight seal. If these pads are not available, use anything that will seal the hole airtight—tape on a plastic bag, aluminum foil, bloody rags, etc. The next step is to take the person directly to the hospital or doctor.

Collapsed Lung (Internal Pneumothorax) □ A collapsed lung is a condition in which a one-way valve occurs in the lung itself, rather than in the chest wall. This can be caused by an explosion; it can also happen

* For example, a man at a demonstration in San Francisco was hit in the eye by police and then thrown in jail, where he was maced and held for six hours. He is now blind in one eye. Had he been taken to a hospital immediately for treatment, his sight could have been saved. But six hours later it was too late.
Sucking Wound

Without any injury, because of a weak air sac. As in a sucking wound, air builds up between the lung and the chest, forcing the lung to collapse. The condition is more difficult to diagnose and treat than a sucking wound. The person may have chest pain, may become increasingly short of breath and, when breathing, her chest on the bad side may not move as much as on the normal side. You may be able to feel air bubbles in the tissue over the chest by pressing on the skin with your fingertips. This is called crepitus. A collapsed lung may be a life-threatening emergency. Take the patient to a hospital for treatment.

Flail Chest □ This type of chest injury occurs when most of a person’s ribs have been broken on one side, and she is unable to expand her chest on the injured side in order to bring air into the lungs. This is a life-threatening emergency. The diagnosis of flail chest is made after seeing and feeling that the chest wall has many broken ribs and that, upon inhaling air, the injured side contracts rather than expands. The first-aid treatment is mouth-to-mouth resuscitation while en route to a hospital.

Paralysis of the Chest Wall and Diaphragm Muscles □ Paralysis of the chest wall and diaphragm muscles can occur in instances of head injury, spinal cord injury, or poisoning caused by nerve gas or chemicals.
Sucking Wound Chest Bandage

1. Place Vaseline gauze, plastic bag, aluminum foil, bloody cloth, etc., over wound to create an airtight seal.

2. Wrap with cloth, a belt, an Ace bandage, tape, etc.
Abdominal Wound

1. Do not try to replace any internal organs that are hanging out.

2. Lightly cover wound (with a sterile dressing, if possible) and wrap or tape it up loosely.

such as curare and succinylcholine. As reported in the newspapers, our Armed Forces doctors have developed a hideous form of torture which employs curare and succinylcholine. When interrogating captured Vietnamese revolutionaries, they paralyze their victim's breathing muscles with curare or succinylcholine and then put him into an iron lung. If the prisoner doesn't talk, they turn the lung off, and he suffocates. Patients incarcerated in mental hospitals and prisons have also been brutalized in this way.

First-aid treatment is the same in all of these cases. You must give artificial respiration by the mouth-to-mouth technique until the person is able to breathe with her own muscles again.

Summary of Treatment of Chest Wounds

1. Cover the wound with a bandage that produces an airtight seal.
2. Give mouth-to-mouth resuscitation, as necessary.
3. Take the injured person to a doctor or hospital.
ABDOMINAL INJURIES

Penetrating wounds (such as knife or bullet wounds, or those caused by pieces of the steering wheel in a car accident) cause a great deal of damage in the abdomen and must be seen by a physician. They usually require surgery.

Dull blows to the abdomen, as from a club or a heavy fall, can cause bleeding that is as severe as that caused by knife wounds. In many instances the bleeding is worse, because the liver, spleen, or kidneys can be ruptured by a club, and a rupture of this kind can cause severe, immediate loss of blood into the abdomen. The medic must evaluate abdominal injuries; when the possibility of a ruptured organ exists, she must send the patient to a hospital immediately.

Shock is the most immediate result of bleeding into the abdomen; it requires an immediate blood transfusion and probably surgery.

Another clue to bleeding in the abdomen, or to any serious abdominal problem, is peritonitis. This is an inflammation of the peritoneum, which is the lining of the abdomen. There are a lot of nerves in the peritoneum, so peritonitis is very painful. Any blow to the abdomen will cause soreness and tenderness at the site of the blow. Peritonitis, on the other hand, will cause tenderness all over the abdomen; it can also cause local tenderness which may or may not feel deep. A patient with a sore abdomen will flex her muscles to keep you from pressing your fingers into her abdomen. A patient with peritonitis will “guard” like this too, but she will also have rigid abdominal muscles which are tight without being under her conscious control. The way to tell the difference is that a patient who is “guarding” will relax her muscles while taking deep breaths through the mouth, but a patient with peritonitis will have very stiff muscles even while breathing deeply.

Blood loss in the abdomen is indicated by: (1) shock; (2) diffuse severe pain and tenderness; (3) rigidity of abdominal muscles; (4) blood in urine, stool, or vomit. There may also be present: (5) bloating of the abdomen; (6) back pain; (7) nausea and vomiting; (8) a fast heartbeat without shock; (9) a generally poor condition of the patient.

If any of the first three signs, or many of the rest of the signs, are present, the patient must be sent to a hospital. If none of the signs is present, but the blow to the abdomen was severe, the patient should be watched for a day to see whether a delayed rupture of an organ occurs. An additional way to check is to tie a string around the abdomen, and then watch to see if the string becomes tight as time passes. This indicates swelling of the abdomen. A person with any injury to the abdomen must not be given anything to drink.
BROKEN BONES

Treating broken bones is a relatively straightforward matter. Place a splint on obvious breaks, and on all injuries in which a break may have occurred, before moving the patient. When bones crack or break, the broken ends are razor sharp and must be kept from slicing muscles, blood vessels, and nerves.

Identifying an injury as a bone fracture is not always easy, but the usual signs are:

1. Unnatural shape (deformity).
2. Indirect tenderness—touching a point above the break moves the bone, causing pain at the site of the break.
3. Tenderness over the injury with pain felt upon movement and sometimes with inability to move the injured part.
4. Swelling and discoloration at the site of the suspected fracture. (This also occurs in sprains).

There are several kinds of fractures. A hairline fracture is a crack in the bone, with the two parts of the broken bone still correctly aligned. A simple fracture is a clean break with two ends. A multiple fracture is a bone that has been broken in several places. An open fracture (also called a compound fracture) means that the bone has broken through the skin, or that some object has penetrated the skin and broken the bone. A greenstick fracture is a bone that has been partially broken through, like a green twig; it usually occurs in young children with supple bones.

Splints

The purpose of splinting is to immobilize the area so that no additional damage will be done, and to relieve pain. Joints above and below the break should be splinted for maximum protection. You will often have to improvise splinting materials. A newspaper or a large magazine, folded over, is good for this purpose. Boards, broken broomsticks, or poles taped together can also be used.

It is a good idea to pad a splint in order to make the patient as comfortable as possible. If it is necessary to move a fractured limb while splinting, always pick it up on the two sides of the break to prevent further damage and pain.

If no splint material is available, a body splint can be used. Legs may be splinted by tying the broken leg to the uninjured leg, with padding between them. A broken arm can be tied to the body as a means of immobilizing it. If an arm has been splinted, use a sling to keep it from moving unnecessarily; an arm sling is made by tying a triangle bandage
Around the neck with the point of the triangle at the elbow.

Broken ribs should be taped, or wrapped with an Ace bandage. If they are so severely broken that the side collapses as the patient breathes, immobilize them loosely, perform artificial respiration, and rush her to a hospital.

Broken hands can be splinted by wadding a ball of newspaper into the hand, carefully turning it over, and then wrapping the whole thing with a Kling. Then put the wrapped hand into an arm splint or inside a sling in order to immobilize it further.

Don't move anyone with a broken back or neck, because you may cause the last twist necessary to sever the spinal cord. This means permanent paralysis below that point. If the person is lying in the street, keep her head and neck from moving by bracing them in the position in which they were found. If it is absolutely essential that the person be moved, you must have at least six people to carry her so that she is not jostled. One person should hold the head and should direct the entire moving operation. Put a board or door under the person's body, head, and neck, immobilizing the head and neck on the board with blocks to prevent side-to-side motion, which is very dangerous.
**Arm Splint**

*Use a board, folded magazine, etc., as the splint [A]. Wrap it diagonally up one way and down the other with a Kling, Ace bandage, cloth strip, etc. [B].*

1. Place triangular bandage across chest with one corner at elbow.
2. Fold lower end up towards neck, raising arm a little to relieve pain, and tie behind neck.

**Arm Sling**
Beat the Heat

**Leg Splint**

*Use same principle and materials as for arm splint.*

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**Body Splint for Leg**

*Broken leg is splinted to good leg by cloth, belts, etc., with padding between legs.*

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Use extreme care, and remember that someone with these injuries should be moved only if her life is in danger due to the street situation. If an ambulance comes, you must protect your patient from careless treatment by ambulance drivers, especially with police ambulances—they often act like they’re throwing sacks of potatoes into a truck.

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**SPRAINS, STRAINS, AND DISLOCATIONS**

Sprains and strains are similar in symptoms and in treatment. A strain (the milder injury of the two) is a stretched or pulled *muscle*, usually in the wrist, ankle, or knee, although it can also affect the neck, back, or other parts of the body. A sprain is a stretched or pulled *ligament*. Both result in swelling, pain, and temporary weakness in the affected part. However, the symptoms will be much worse in a sprain.

If a person with a sprain or strain comes to you within two hours after the injury occurred, have her soak the injured area in cold water or apply an ice pack. If it’s been longer than two hours, use hot water or a heating pad. The cold treatment is to help prevent swelling before
Body Splint for Arm

**Broken arm is placed against body in a sling [A]. Then wrap an Ace bandage, Kling, cloth, etc., around arm and chest [B] to immobilize arm.**

A dislocation occurs when a bone pops out of the joint, or is wrenched out. It is caused by stretching of the ligaments which normally hold the bone in place. Dislocations happen repeatedly to some people, even without injury, and such patients can usually tell you how to put the bone back in place. However, if it occurs as a result of an injury, even to a person with a chronic dislocation, then you should immobilize the area with a bandage or splint and take the patient to a doctor. Don’t mess around with a dislocation, because you can do a lot of damage to the ligaments and nerves.
TRANSPORTATION OF THE INJURED

A medic should know how to move someone out of the way of danger. Size is not a factor. Small people can perform these carries as well as large people. Learn a couple of carries that are easiest for you, and practice them.

This illustration shows the positioning of four of the (at least) six people needed to try to move someone with a broken back or neck. (The two people who should be on the right side of the drawing were omitted so that the positions could be clearly seen.) The person holding the head should direct the lifting procedure.
Patient sits in a "saddle" formed by medics' locked hands and holds onto their shoulders. With this version, some support can be given to the patient's back [A] by the carriers (see next page).

Four-Hand Carry for a Conscious Person
Four-Hand Carry for a Conscious Person

As shown in previous illustrations, positioning your hands this way will help support the patient’s back [A], but most of the weight of the patient will fall on two hands. [B].

Another way to lock hands for the preceding carry. The patient’s weight in this version falls on four hands, rather than two.

A simple stretcher can be made using a blanket and two poles (brooms, mops, etc.). Place each pole one-third of the way towards the center of the blanket. Fold each side of blanket over towards middle. Place patient in center. Patient’s weight will prevent blanket from slipping.

Stretcher
Stretcher

Another type of stretcher is made from strong jackets and poles. Button jackets and turn inside out [A]. Push sleeves back in again [B]. Slip poles through the sleeves and insides of the jackets [C].

Blanket Drag

Place patient on a blanket, wrapped around patient and pinned or tied, and gently drag patient. If a short move is all that's needed, the blanket need not even be fastened—just grab ends and pull.
1. Fasten your belt and patient’s belt together to form one long loop and place under patient’s buttocks.

2. Lie down on top of patient. Slip your arms through belt loops, pulling them up onto your shoulders. Grab patient’s arm with your opposite arm.

3. Pull patient over on top of you by pulling patient’s arm and rolling in same direction. Patient’s abdomen should be up high on center of your back.
Over Long Distance with No Help

4. Crawl up on one knee, then get up on other and stand. It really helps to pull yourself up by bracing against a tree or other sturdy object, but it's not necessary (and one might not be handy!).

6. (Front View) Note that patient's weight is supported by your shoulders, and that your arms are free. (The army uses this carry because it enables a soldier to carry and use a gun, if needed.)
BURNS

A burn is an extremely traumatic injury. The destruction of the skin results in severe fluid loss due to evaporation. Much fluid is also lost from seepage into the damaged swollen tissues. This fluid loss, which may result in shock, is greatest during the first eight hours and may continue for as long as forty-eight hours.

If a person with a severe burn survives the fluid-loss shock, she is then confronted with the other major problem in burns: infection. The loss of skin in a second- or third-degree burn is a perfect setup for bacterial invasion. Over 70 percent of all burn deaths are caused by bacterial infection resulting in septic shock.

Diagnosis

There are three ways in which a burn is described: depth, extent, and location. The depth of a burn is described by one of three categories: first degree, second degree, and third degree. Many burns are a mixture of all three degrees. It's important to be able to tell approximately what type of burn it is so you can decide what type of treatment approach to follow. Definitions of the three degrees of burns are:

**First degree.** A red, hot, dry skin like that caused by sunburn.

**Second degree.** Red skin which has blisters and is painful. A mild second-degree burn is similar to a first-degree burn, but is more severe and involves more layers of skin. It usually comes from a scald, a flash burn, or a severe sunburn.

**Third degree.** This is a burn which often results in the destruction of the entire thickness of the skin. It is easily recognized because feeling is lost over that area, since the nerve endings have been destroyed. The entire burn area should be tested with pin pricks; lightly touch the skin in every affected area with the point of a sterile pin or needle. Those areas in which there is no feeling at all are third-degree burns. Third-degree burns usually result from flames or high-temperature explosions.

The extent of a burn is the percentage of the skin surface of the body that is involved. An easy way to remember the sizes of the various surface areas on the body is the “Rule of Nines.” Each section of the body contains some multiple of 9 percent of the total skin on the body. The head and neck equal 9 percent. The abdomen and chest equal 18 percent. The genital region equals 1 percent. If, for example, a burn involves the entire hand and arm up to the elbow, it covers approximately 5 percent of the body (the entire arm area being 9 percent).

The location of the burn is important if it is in the face, the neck, or the groin-rectal area. In most cases of face and neck burns, there exists
the possibility that the lungs have also been burned. Face and neck burns may also cause a swelling that blocks the windpipe. Blockage of the windpipe from tissue swelling takes six to eight hours. An early sign of this condition is hoarseness and difficulty in breathing. If this symptom occurs, the burned person must be taken immediately to a hospital for a tracheotomy (an incision in the neck into the windpipe). Although the groin-rectal area makes up only a small percentage of body surface, its location makes preventing infection much more difficult; therefore this area must receive extremely sterile care.
Treatment

The treatment of a burn is organized around quick evaluation, preventing shock, preventing infection, and promoting healing. A person requires hospitalization if: (1) the burn is a second- or third-degree burn on the lower face and neck; (2) the burn is a second-degree burn of an extent greater than 30 percent; (3) the burn is a third-degree burn of an extent greater than 10 percent; (4) the burn is accompanied by shock.

Only half of the people who suffer a 50 percent third-degree burn survive. There are almost no survivors of a 65 percent third-degree burn in the technically advanced United States, but in China people frequently survive 90 percent third-degree burns.

In treating first-degree burns, there is no danger of shock or infection. The main problem is pain. The best treatment of a first-degree burn is to place cold water or ice cubes continuously on the burn until the pain stops. The cold water destroys the enzymes which cause tissue destruction and therefore stops the pain. Such practices as putting butter immediately on the burn are old superstitions. Butter and similar substances do not deactivate the enzymes. However, it is useful to apply cream or oil after the cold-water treatment is finished; this helps prevent cracking and drying of the skin.

In treating second-degree burns of greater than 30 percent extent, the first step is to treat for possible shock by administering fluids orally. (See the section on shock.) The next step, regardless of the extent of the burn, is to prevent infection. This is done in the following manner:

1. Carefully cut the clothes away from the burn area; never pull them over the burn area.
2. Do not touch the burn with anything but a sterile dressing or sterile gloves.
3. Clean the burn with Phisohex, removing all debris from the burn area.
4. Large blisters which look like they might break should be drained under sterile conditions by cutting away the whole roof of the blister. Leave small blisters alone.
5. Put a sterile dressing on the burn. All limb dressings must be applied with the limb in a relaxed position to avoid later impairment of limb function. A dressing must also be loose enough so that it will not put pressure on the burn as the burned area swells. A dressing is made by first putting one layer of sterile petroleum gauze or Furacin gauze over the burn. Then use fluffed-up four-by-four pads or Kling bandages as a padding next to this first layer. For the third layer, wrap a Kling around the first and
second layers. The final step is to splint the limb in the position of function.

6. The dressing should be changed at least once every two days.
7. Initially, it is important to keep the burn area as immobile as possible.
8. Patients with second- or third-degree burns should receive protection against tetanus if necessary.
9. If shock or infection develops, the patient must be seen by a doctor.

Young children sometimes burn themselves badly by knocking over pots of boiling water or cups of hot coffee. Parents should be particularly careful to keep these things out of reach, as the second-degree burns caused by them are very painful and frightening to a young child.

All second-degree burns of an extent greater than 30 percent should be seen by a doctor. You have three days in which to get a person with such a burn to a doctor before a serious infection may begin. When you change a dressing, always examine the burn for infection. The burned person must be checked four times a day for one week for signs of infection. (See the sections on infection and shock.)

Changing a dressing is often extremely painful. Much of this pain can be avoided if the burned area, with the dressing still on it, is soaked in a sterile saline solution for an hour before taking the dressing off. The soaked dressing will not pull off any newly healed skin.

First-aid treatment for third-degree burns is essentially the same as for second-degree burns. It should be remembered, however, that third-degree burns are more serious and more easily infected. Any third-degree burn of an extent greater than 10 percent should be seen by a doctor. Since all the skin in the area has been burned away in a third-degree burn, an immediate skin graft will be needed to cover up the hole, thus preventing infection and fluid loss. An additional graft will be needed later to prevent the burned area from turning into a contracted scar. Second-degree burns take two to three weeks to heal. Third-degree burns take much longer. The pain of a major second- or third-degree burn is severe and has to be treated with whatever pain-killing drugs the medic or doctor has available.

The treatment described in this section is first-aid treatment. It tells you what to do before taking a burned person to a hospital. In actual hospital treatment, the dressing of a third-degree burn is changed twice a day. In the treatment of second-degree burns, medical practice is not uniform. Some hospitals change a second-degree burn dressing every day; others change it every three to five days.
GAS AND MACE

There are five kinds of chemical riot-control agents currently being used. They are CN tear gas, CS tear gas, blister gas, nausea gas, and Mace. (Pepperfog gas is a variety of CS tear gas.)

The first four gases come in a variety of canisters—cold or hot canisters (the latter heat up very quickly and will severely burn your hand if you pick one up); canisters that explode; canisters that bounce around; and canisters that emit several clouds of gas several seconds apart. There are also devices that spray tear gas out of a car. Police are experimenting with producing Mace (which is a liquid) in gas canister form, as well as with psychedelic gases, drug dart guns, and other forms of chemical crowd control.

The basic protection against all gases except nausea gas is a gas mask—either the rubber kind, or an improvised one made out of a cloth surgical mask, with a four-by-four gauze sponge, soaked and wrung out in vinegar, inside it. The vinegar-dampened sponge, if combined with airtight goggles, will reduce the effect of the gas by 50 to 75 percent. If using a professional gas mask, beware of old ones (World War II and older) as they will not work. You are also a target for police when you are wearing a professional gas mask.

Remember that in any situation where gas is used, bystanders as well as demonstrators will be affected by it. The medic should watch particularly for older people and children and encourage them to leave the area in advance if a gas attack is anticipated, or help them leave, and care for them, if it’s too late. Gas is much more serious for children and older people because of the terror that it causes and the smaller or less effective lung capacity of the person.

Tear Gas

CN gas is the weak form of tear gas. It disperses quickly from the area and does not have too much of an effect other than psychological.

CS gas is the strong version. CS and pepperfog gas are the two main riot-control gases used in areas like Berkeley and Washington that have frequent street actions. All of the gases except pepperfog are made up of particles which are dispersed into the air. Pepperfog is made up of liquid droplets; this means it is absorbed much more quickly. The symptoms of any kind of tear gas are coughing, choking, burning of the skin and eyes, and nausea (if received in a concentrated dose).

To protect yourself against tear gas you should wear a gas mask and airtight goggles. You should also wear clothing that covers as much skin area as possible.
To treat burning skin, flood the affected area with water, or wipe with mineral oil, following with alcohol to remove the oil. CS gas and pepperfog turn into an acid on contact with water—if a lot of water is used, it will wash the gas off the skin, but if only a wet towel is wiped over the skin, it will make it burn like hell.*

To treat burning eyes, flood them with water, pouring gently from the inside corner of the eye down and out towards the outside corner. Never pour from the outside corner, because you may wash dirt into the tear ducts, which can get infected. Never blast a stream of water into the eye, as from a squirt bottle or faucet—do it gently. Follow with an eye anesthetic, such as Optheane, or with eye drops, such as Murine.

To treat choking and nausea caused by tear gas, get the person to fresh air as quickly as possible and make her comfortable. If she has had a heavy dose, she may have to rest for a while.

Blister Gas

Blister gas is usually used when demonstrators have been wetted down with fire hoses, or if tear gas has been in use all day and the people are supplied with wet towels. It is a powder which burns the skin; when mixed with water, it causes instant second-degree burns. The treatment for blister gas symptoms is the same as for tear gas, but the victim may also have to be treated for second-degree burns.

Nausea Gas

Up to the present time, nausea gas has been dispensed only in canisters. When it lands, the canister lets off a small puff of smoke, then—nothing. It looks like a dud, but it is highly dangerous because the gas is invisible; it is colorless and odorless. Nausea gas causes intense vomiting, which can tear the lining of the stomach, and instant diarrhea, which can cause rectal bleeding. It upsets your judgment and can aggravate asthma.

Professional gas masks are dangerous when nausea gas is being used, because the gas is absorbed through the skin, not through breathing. You will become nauseated, and when you vomit you run the risk of choking on your own vomit.

To protect yourself against nausea gas, wear heavy clothing that covers all skin areas. If you see a “dud,” run like hell. Take notice of the police movements; because they are not protected from nausea gas.

* It should be noted that a baking soda/egg home tear gas “antidote” popular last year has been found to be ineffective.
by their masks, they will use it only if they are far away and upwind. With any other kind of gas, they will always be in close.

To treat a victim of nausea gas, remove her to fresh air and make her comfortable. If her vomiting spells are interspersed with rest periods, she'll be okay. If she vomits constantly, she is in danger of rupturing her intestines and will need a shot of atropine from a doctor. Get her to a hospital or an aid station immediately.

Nerve Gas

Nerve gas has not been used (except by accident) in the United States. It is highly unlikely that it will be used, since it is hard for the police to keep themselves safe from its effects. The antidote is atropine. Artificial respiration and cleaning the gas off the person's skin, or out of her eyes, will probably also be necessary.

HEAT PROSTRATION

The medic will often find herself in situations in which people suffer from heat prostration, or from even more severe heat effects—on the beach, on crowded, hot days in the city, at demonstrations held on hot days, at sports events, etc. Most of these effects can be prevented by eating well, drinking lots of liquids before going out on an action, and taking two salt tablets before you go. Take some salt tablets with you. Wear loose, light clothing and some kind of hat.

The most common problem that you will run across is fainting from heat exhaustion. This is caused by excessive loss of salt and water, due to heavy sweating. If you catch the person when she is starting to faint, lay her down and loosen her clothing. Give her cool salt water.

Heat stroke is more serious. The signs are bright pink skin, high temperature, and unconsciousness or delirium. The person will regain consciousness in a few minutes. Loosen her clothing. Continually flush her face, neck, and wrists with water, or apply ice, until her body temperature drops. A person who has keeled over from heat will often wake up and then start vomiting. It's useful to have some moist towels to help clean her up. She should be kept sitting or lying quietly in the shade until she feels strong enough to move. One tablespoon of salt, or two salt tablets, in a quart of cool water should be given to her, even if she doesn't want it.

Heat cramps can also develop because of loss of salt and water. These occur in the intestines, muscles, abdominal wall, arms, or legs. Treatment consists of a lot of salt water and rest.
SEIZURES

Seizures (fits) are uncontrolled, jerking movements of the body. They can be caused by many things. Some common causes are brain injury, either recent or old; drug withdrawal, especially from barbiturates (reds) and amphetamines (speed); general disorders affecting the metabolism (diabetes, liver failure, epilepsy).

Seizures are generally self-limiting and stop after about one to five minutes. Treatment consists of keeping the airway open (a tongue depressor or spoon can be held in the mouth over the tongue) and preventing the person from hurting herself. It is not necessary to stop all body movements; an attempt to do so could lead to serious injury. Just hold the person tightly enough to prevent injury. For example, restrain her head so that it doesn’t hit something hard. If a seizure does not stop after ten minutes, or if it recurs after stopping, the patient should be seen by a doctor. After the seizure stops, the patient often is sleepy and confused for ten minutes to an hour. This is usual after a seizure and does not, by itself, indicate more brain damage. If a seizure occurs after a head injury, especially in someone who hasn’t had seizures before, the patient must be seen immediately by a doctor, because serious brain damage may be occurring.

INFECTION

Bacteria are very small organisms that cause wounds to become infected. Many bacteria are normally present on human skin and in the gastrointestinal tract. Certain conditions allow these bacteria, and others, to cause bad infections.

There are two main types of bacteria: those that need air to exist (aerobes) and those that can only exist without air (anaerobes). The aerobes include many types of bacteria, such as “strep” (streptococcus) and “staph” (staphylococcus). Staph is a very fast-growing destructive “bug” and is responsible for a lot of serious infections. It moves and spreads very quickly and therefore must be dealt with vigorously. The anaerobes cause infections deep within wounds and are responsible for tetanus and gangrene, both of which are potentially fatal conditions.

Infection can be viewed as an upset in the ecology of the tissues of the body. For some reason the body’s normal defenses break down, and conditions are set up in which abnormal growth of bacteria can occur, which is harmful to the body. The body’s normal defenses are: (1) good general health; (2) intact skin surfaces; (3) good blood circulation to remove waste and to bring in food and oxygen; (4) white blood cells,
which are manufactured in the bone marrow and lymph glands and which seek out and destroy invading bacteria; (5) normal antibody production.

It is easy to see how these defenses can be weakened. A cut through the skin can let bugs in; a torn blood vessel deprives an area of circulation. A body poisoned by hard drugs or alcohol can’t mobilize its defenses. A more subtle way of permitting infection to occur is to destroy the normal interaction among the bacteria that normally live in the body. A good example of this is the overgrowth of yeast that occurs in the vagina of a woman who is being treated with tetracycline for, say, a chest infection. The tetracycline kills off the good bugs that normally prevent the yeast from spreading.

Any wound can result in a serious infection, but the deep wounds are the dangerous ones. An infection can be indicated by local signs or general body response. The local signs connected with infection are:

Heat. The infected area feels hotter than the areas around it.

Tenderness and pain. Sometimes the pain is excruciating and very localized.

Redness and firmness. This sign is especially apparent in the case of abscesses, which can be felt as firm, red spheres of any size around the wound. An abscess is a walled-off pocket of pus and infected material.

All of these signs are well illustrated by an infected pimple, which is a small abscess. Almost everyone has seen such a pimple, but few people think of it as a serious condition. However, if an abscess forms near a recent wound, it is a sign of infection in that wound and may mean that there is significant danger. The reason an abscess is localized is that the infection (pus, dead cells, bacteria) has been "walled off." If this type of infection were not walled off, it would spread in the form of a hot, tender, firm, red infected area. This condition, known as cellulitis, can be very dangerous.

Abscess and cellulitis are two of the three types of local aerobic infection. The third type is an infection of the lymph channels. This appears as red, tender lines in the skin, traveling away from the wound and towards neighboring lymph nodes, which become swollen and tender. All of these infections can occur within a day after a wound has occurred.

A noninfected wound will have a small rim of tender, firm, red skin. This reaction is normal and must be distinguished from the three types of infection. Significant infection must be prevented, and any wound victim must be examined frequently for signs of it.

Deep infections can be like the aerobic infections described above, or they can be the much more serious gangrene or tetanus. Gangrene is
caused by very fast-growing bacteria, claudriadia, which can destroy an entire leg in six to eight hours. It kills living tissue and thus causes black, ugly, foul-smelling, dead tissue. It also produces a gas as it works, so that if you rub your finger over the skin around the infected wound, you will feel the bubbling of little gas pockets beneath the skin. This condition is called crepitus. If any of these signs occur (black, foul-smelling, dead tissue; crepitus; or even just a very rapidly moving infection), there is a good chance that gangrene is present.

Tetanus is another serious deep infection that is caused by an anaerobe. It results in tightening and spasm of muscles, starting with a locked jaw, stiff back, and, possibly, seizures. It will occur in a matter of days to weeks after a wound has been infected with the right bacteria—if the body's normal defenses are not strong enough. Tetanus can progress to continuous seizure and finally death.

All the symptoms described above are specific, or local, results of infection. It is also important to look for a general body response to infection. Chills and fever, a general poor feeling with aches all over the body, and lack of clear thinking are all indicative of a general reaction to an infection. If these symptoms are secondary to a wound, they are very serious signs.

Treatment of Infection

The best way to deal with infections is to prevent them. Infection is probably, next to blood loss, the most common cause of death following a bad wound. Therefore, after stopping the bleeding, you must be concerned with preventing infection.

Whenever dealing with any wound, you must keep dirty objects (including your fingers and clothes) away from the wound and wash the wound thoroughly with Phisohex. If no Phisohex is available, use Dial or some other antibacterial soap. Then you must protect the wound from infection by covering it with clean, sterile dressings. These things must be done for all wounds.

Healing occurs in an orderly way. The dead tissue is digested by white blood cells, which also kill the bacteria. New circulation is established by the growth of blood vessels in the infected area. Antibodies are formed to aid in fighting the infection within one to two weeks. Healing is enhanced by providing adequate drainage. Often this can be done simply by elevating the infected part above the chest. For example, have the patient sleep with her infected arm elevated on two or three pillows. Healing is also enhanced by heat, which stimulates circulation. Warm, wet compresses or soaks are useful. Finally, good general nutrition and health are prerequisites for good healing. Healing can be
impaired by stress, persistent infection, or the presence of a foreign
body (gravel, shrapnel, glass, etc.).

Certain kinds of wounds require special attention. For example, the
following is the way to treat a deep penetrating wound in the leg caused
by a dirty piece of broken glass:

1. Stop the bleeding. If it is arterial bleeding and if the wound is very
deep, the patient probably needs to be taken to a hospital. If the
patient is not in shock and the bleeding is easily stopped, then proceed.

2. Evaluate the damage. Prick the leg in various spots with a pin to
see if the patient has lost feeling somewhere. Have her move her toes
and knee to evaluate the nerve damage. If there is significant nerve
damage, chances are that very little return of the function will occur
without surgery—it is necessary to evaluate how dangerous it would be
to take the patient to a hospital and to weigh this danger against a
permanent loss of leg function. Delayed nerve repair, performed four to
six weeks after the injury has been sustained, is often successful, but
not always.

3. Give the patient a drug, if available, to relieve her pain and
anxiety.

4. Clean the wound thoroughly with Phisohex on sterile pads. Be
very thorough. Pour sterile saline solution over the wound to rinse it off
and to remove any loose particles.

5. If there are jagged edges on the wound, or any dark, dead-looking
edges, cut with a scalpel so that the dead and jagged edges are trimmed
off but an absolute minimum of live tissue is cut off. This is called
debriding. Debriding is a very important part of wound care, because
dead tissue is a good place for bacteria to grow. Do this only if you
have a sterile scalpel and a local anesthetic with which to kill the pain.
If you do not feel confident enough to do this, then skip it—but
remember to keep an extra close watch for wound infection. Clean-
edged wounds, such as knife wounds, usually do not require debriding.

6. Do not suture a deep wound. All suturing does is provide the
anaerobic bacteria with a place in which to grow without air. Do not
suture or tightly tape any wound that has been open for more than
eight hours, for infection is surely present; such wounds must be left
open, unless they can be closed by a doctor.

7. Dress the wound with sterile bandages and change these daily, or
more often if necessary.

8. If there is a blood clot or significant crusting or debris in the
wound, rinse it several times daily with hydrogen peroxide (3 percent
solution). This treatment gets rid of these materials, which are good
media for bacterial growth.
9. Do not give antibiotics routinely, except in the case of hand wounds. If infection develops, proceed as in point 12, below.

10. If the patient has not had a tetanus shot in the past five years, tetanus toxoid must be given. If she has had no previous tetanus injections, tetanus antitoxin (human) must be given, as well as tetanus toxoid injected in a different location. (If the patient is too "hot" to take to a hospital, patch up the wound, and puncture the skin on the sole of her foot with a clean nail. Then take her to a private physician's office, tell the doctor she stepped on a rusty nail, and demand that she be given tetanus antitoxin.) Toxoid works to renew the body's supply of antibodies to fight tetanus, but it will only work fast enough if some antibodies are already there. Anyone who has had a tetanus toxoid injection within the past five years will have antibodies. However, anyone who has not had a previous immunization will not form antibodies fast enough, and therefore will need antitoxin, which contains antibodies from other humans. Tetanus is a serious disease and must be prevented!

11. Watch the wound. Each day look for any signs of local infection and observe the patient for any signs of fever or other general reactions.

12. If local infection does occur, remove any sutures and loosen any butterfly tape bandages. Have the patient soak the area in warm, soapy water for ten to fifteen minutes, four times each day. Clean the area with hydrogen peroxide if the infection is in an extremity (an arm or a leg). Elevate the wound as often as possible; have the patient sleep with the affected extremity elevated. If the infection doesn't start improving within three days, or if a fever appears or persists, the patient must be seen by a physician. If a superficial abscess occurs at the site of the wound, the medic may try to drain it to see if the fever will then disappear. The skin should be cleaned with Phisohex and then covered with Zephiran (benzalkonium chloride 1/150 aqueous). A spray (such as ethyl chloride) can be used to anesthetize the area. Several such sprays are available without prescription. A small incision should be made over the thinnest area of the abscess, and all the pus expressed. The open abscess should then be kept clean. The patient should be continued on antibiotics, while being watched closely for twenty-four hours to see if the fever disappears or the condition improves. If there is improvement, all is well. If the fever continues, a physician must be contacted. It is possible that the fever may be unrelated to the wound, but the high probability of an infection in the wound or the blood requires professional attention.

Any puncture wound requires measures to prevent tetanus. Only deep, serious wounds require antibiotics and debriding. All wounds
should be kept clean and watched closely for signs of infection, both local and generalized.

Superficial and mild wounds can be treated by applying antibiotic creams, such as Bacimycin and Neomycin, which are available without prescription. These creams should not be used for deep wounds because they may stop only aerobes while allowing the more dangerous anaerobes to keep growing.

Remember that the priorities for prevention and treatment of infection in the street are very different from those at home or in a medical facility. In the street you are responsible for emergency first aid. This may mean using dirty rags, if that's all you have, to stop bleeding (obviously, if you have sterile dressings, use them). After the patient has been moved to a safe place, the procedures outlined in this chapter should be followed.

HAND INJURIES AND INFECTIONS

The hand is very complex, containing all kinds of small bones, nerves, tendons, fluid pockets, and blood vessels. An infection of the hand can easily develop as a result of a dirty wound. The human bite is especially likely to cause infection, and it is very common to get an infected hand after hitting someone in the mouth.

An injured hand must first be washed thoroughly with antibacterial soap and water. Apply a dry sterile dressing and elevate the hand to promote healing. The patient should sleep with her hand on several pillows to keep it elevated. If the skin has been broken and contaminated by someone's mouth, antibiotics should be administered. If infection develops, a doctor should be consulted immediately. Serious loss of function, resulting from a rapidly spreading infection, can occur after twelve hours.

An injured hand should also be immobilized in the position of function; this means that you must splint the hand in a loose, half-open grip. Pack the half-open hand with a ball of cotton, gauze, or newspaper to maintain this position, and then cock the wrist halfway back so that the thumb and the undersurface of the forearm are in a line. The hand and forearm should be included in this splint. Never splint a hand with the fingers straight out.

CONDITIONS OF OPPRESSION

There are many oppressive conditions leading to disease. Rampant malnutrition, illiteracy, poor or non-existent prenatal care, inadequate...
housing, and poor sanitary facilities are some. Two diseases, sickle cell anemia and lead poisoning, as well as the problems created by poor nutrition, require special emphasis since they typify the total lack of concern of the health establishment in particular and the government in general for the needs of the people.

SICKLE CELL ANEMIA

Sickle cell anemia—98 percent of whose victims are black—is transmitted through the genes. It causes red blood cells to have a sickle shape instead of the normal round, doughnut shape. These abnormally shaped cells bunch together, clogging up blood vessels. Because the disease is congenital (present at birth), its agonizing symptoms and pain begin in early childhood. Yet most black people are unaware of the existence of the disease, which kills most of its victims before they are thirty. It is as crippling, as painful, and as deadly as leukemia, muscular dystrophy, or cystic fibrosis—all of which affect white people primarily. Yet sickle cell anemia has not received the attention or consideration from public agencies that these diseases have—a clear indication of the racist and genocidal policies of this government.

Even though a person may not have the disease itself, she or he may be a carrier of the sickle cell trait. Some 10 to 15 percent of black people in the United States are carriers who can unknowingly transmit the disease to their children. Carriers are susceptible to untold risks that are only recently receiving any attention. Carriers in the Armed Forces have been known to drop dead suddenly under the stress of basic training. Yet the military does not test for sickle cell trait (carrier state). Women who are carriers have a high incidence of blood clots when placed on birth control pills, but racist-chauvinist gynecologists do not routinely test for sickle cell trait before prescribing the pill. Who knows what other conditions are fatal to black people who are carriers?

A simple test can identify carriers, and every black person should have this test. Already the Black Panther party is raising community awareness about this dread disease. Community health groups should support their struggle and demand that basic preventive research into sickle cell anemia be instituted.

LEAD POISONING

Lead poisoning is found chiefly among children living in ghetto housing where slumlords allow lead-based paint to flake and peel. Children often eat the poisonous chips. Although lead-based paint has been outlawed for use on interiors since 1959, this is not enforced and most slum housing still contains lead-painted walls. A recent study in Chicago
indicated that 30 percent of ghetto children between the ages of one and three have lead poisoning.

Acute symptoms include vomiting, abdominal pain, muscular cramps, nerve paralysis, and seizures. Chronically, lead poisoning causes anemia, brain damage, and kidney disease. This is another form of genocide. Simple blood and urine tests are available and community health workers can rapidly diagnose lead poisoning as they are organizing in their community. Treatment is carried out under a doctor’s supervision.

NUTRITION

Malnutrition, ignorance about essential foods, and lack of money with which to buy adequate and nutritious food are common in many parts of this country. President Nixon’s “nutrition advisers” estimate that ten to twenty million Americans are too poor to eat properly. But in 1968 only 18 percent of these people were receiving food stamps or surplus food, while at the same time the government was paying farmers more than $3 billion not to grow food.

Meanwhile, the foods that we do eat—poor and middle-class alike—are over-processed, expensively packaged, and contain dozens of additives, the effects of which have not yet been fully investigated. The big food companies pay millions each year for advertising, bombarding us with pleas to buy, for example, a particular “enriched” white bread—a bread from which all the vitamins have been removed during processing and into which some are later replaced to make the bread “enriched.” Or we hear and read ads for a salad oil in a fancy new container—a container which cost over $400,000 to develop, and that cost is passed on to us.

Even in school, where we are supposedly taught about nutrition, the classes (if we are lucky enough to have any at all) are brief and boring, and the school lunches provided free or at cost are in direct contrast to what is taught. They are full of starches, sugar, and overcooked canned vegetables and low in protein, vitamins and minerals.

Community health workers must investigate at the family, collective and neighborhood level how people are eating. A neighborhood nutrition survey can help pinpoint the problems. There are many ways that people can organize to solve these problems. First, education about good nutrition through classes and literature should be organized. Second, breakfast-for-children programs can be set up or supported, and counseling provided for people who qualify for food stamps but who are intimidated by the bureaucracy. Third, collective food-buying arrangements (food conspiracies or co-ops) and collective eating ar-
rangements can help insure good, nutritious food at low cost. Community health workers should also confront chain supermarkets about quality control and struggle to get members of the community on their decision-making boards.

It is in the government’s interest to keep us eating the way we do: It’s very good for business, and a physically weak, sometimes underfed people is a far less dangerous adversary than a well-fed people.

RAPE

The worst aspect of rape is usually the psychological trauma. It is an incredibly terrifying experience, and it’s happening more and more often. Women in a number of cities are trying to prevent rapes by picking up women hitchhikers, keeping their car doors locked, and publishing descriptions of rapists in underground newspapers.

Women who hitchhike should refuse rides if they get bad vibes from a male driver. They should not get into the back seat unless the car is a four-door, so they won’t be trapped. Always ask the driver where he’s going before getting into the car. If he’s vague or gives a sexist answer like “Anywhere you want, honey,” refuse the ride. Women should prepare for male-chauvinist violence by learning physical self-defense techniques, such as karate, judo, and tai chi. More and more women are also learning armed self-defense.

After a woman has been raped, women who are close to her should take care of her. This means calming her down, not letting her stay by herself (at least for the first night), and accompanying her through the whole medical treatment procedure.

Reporting rapes to the police is worthless. They regard it as the woman’s fault. They almost never catch the rapist (because they don’t care) and they brutalize women still more with their questions and examination. One woman who had been raped went to get help from a black friend of hers right after the incident. He was armed, and by sheer luck they found the rapist. The black man fired several shots into the rapist’s car in an attempt to stop him. The police came and told the black man to drop his gun or they’d shoot him. He did, and the rapist escaped. The raped woman was then hassled by police twice in the middle of the night several weeks later about “evidence.”

Medically, there are three aspects to consider in treating rape victims: supporting psychological care; the treatment or prevention of any disease, injury, or pregnancy that might arise from the rape; the documentation of the rape for legal reasons.

Documentation is necessary only in those cases in which legal action is contemplated; it consists of having a licensed physician make an
examination and file a report. In practice, what often happens is that women seeking help after a rape are further brutalized by doctors. The examination is usually perfunctory, and the doctor is often more concerned with detecting sperm for documentation than with tending to the patient’s needs with warmth and sensitivity. He often conveys contempt for his patient, as if the rape were her fault. Therefore, if the rape has been reported and a medical exam is needed for legal reasons, a doctor should be chosen who is known to have consciousness concerning women (of course, a woman doctor is preferable).

A woman who has been raped must be evaluated for traumatic injury. A careful pelvic examination should be done, and any tear or laceration of the vagina or rectum should be treated. Most doctors stop at this point and omit the preventive measures necessary for caring for a raped woman. A course of antibiotics should be given to prevent syphilis and gonorrhea, since a high percentage of rapists have active venereal disease. Most doctors will not willingly give this treatment but will insist on having the woman return several times for cultures and blood tests. This further humiliates the woman and only serves to line the doctor’s wallet.

If the raped woman was not on oral contraceptives or was not wearing an intrauterine device (IUD), a “morning-after” contraceptive pill should be demanded, as the doctor might not even think of it otherwise. (“Morning-after” pills are not to be confused with birth control pills. They are currently made up of massive doses of hormones and doctors don’t really know what the hormones—in either pill—do to women.)

ABORTION

The medical-industrial complex has consistently refused to develop contraceptives for men or safe contraception for women, so abortions are a part of the oppression of women. These same white male doctors and businessmen make it almost impossible for women to get legal, free, safe abortions on demand. At least five thousand women die each year from illegal, unsafe abortions.

The battle to change the laws is being waged and all health workers must press for free abortion on demand and research into safe contraception, especially for men. Until then, medics should know certain basic things about abortions so that they can advise women in need.

In practically every major city now, there are women’s liberation groups who do contraception, pregnancy, and abortion counseling. Some of these groups are forming women’s health collectives, going through specialized training and setting up women’s clinics. These
women's groups are by far the best people to refer other women to. Many of the establishment abortion-counseling groups or referral agencies are fly-by-night operations and/or super male-chauvinist.

The women's groups have researched the scene thoroughly and know what the best alternatives are. The medic should familiarize herself with information on the current methods of abortion and all the information on do-it-yourself methods in order to advise women as to the dangers of each. She should also be familiar with contraception techniques. This information can be obtained from the women's groups.

STREET DRUGS

Since drugs are so much a part of the street scene, a medic should know how to treat the common bad reactions that occur. Obviously, people in street actions shouldn't be wired up, because all drugs interfere with functioning.

SOFT DRUGS

Marijuana

Panic reactions to supergrass are rarely seen. They are increased by bad vibes and alcohol. Treatment consists of reassurance that the person is not going insane and that the effects will wear off soon. Good vibes and moving the person to a place she digs are also beneficial.

Psychedelics

Acid, mescaline, psilocybin, and other psychedelics can cause freakouts by their ability to distort sensory perceptions or by being cut with other drugs, such as strychnine. A freakout usually manifests itself as paranoia, the feeling that people are coming down on you. The line between paranoia and justified suspicion is best left to a collective decision. Paranoia can be dangerous when a person on a bad trip takes unwarranted actions; for example, she may attack a mailman because he looks like a cop in uniform, or she may try to fly from a third-story window. Nausea, vomiting, and other physical complaints are increased by bad wine and greasy food. Remove the person from the place in which she freaked out to a place she defines as safe. Continually talking to the patient can bring her down. Reassurance, touching, and holding the patient to reinforce reality and trust are also effective. If necessary, mild sedatives should be obtained. If emergency treatment is required, get a doctor to give the patient some thorazine.
HARD DRUGS

Barbiturates (Reds, Yellow Jackets)
These drugs are nervous system depressants. An overdose of barbiturates can cause staggering, confusion, and either severe agitation or coma, or agitation followed by coma. People can die from the respiratory depression that occurs. If the barbs have been taken with alcohol, an even more severe respiratory depression will occur which can be fatal. Do not give any other drugs, especially stimulants, to a patient with an overdose of barbs. If the patient stops breathing, use mouth-to-mouth resuscitation and get her to a hospital.

If a person has been on barbs for a month or longer, withdrawal can cause seizures and shock, so be prepared to handle these conditions when the drug wears off. There is no specific antidote for barbs. A heavy barbiturate addict should be hospitalized for withdrawal.

Speed
Amphetamines speed up the heart and raise the blood pressure, as well as producing euphoric effects. An overdose can cause shock which is resistant to treatment and requires hospitalization. Seizures can also occur, particularly during a long speed binge. If someone freaks on speed, she is apt to become violent. Unless the medic is skilled in dealing with speed freaks and can “talk her down,” she should restrain the patient so she won’t hurt herself or others and get her to a doctor for treatment, usually with thorazine.

Narcotics
Heroin (smack), morphine, demerol, and methadone are all narcotics, which means that they are addictive. An overdose causes respiratory failure, which can kill the person. Treat an overdose patient with artificial respiration while en route to the hospital. A specific antidote exists for narcotics and is available under the brand names Nalline, Nalorphine, and Lorfan. The antidote is administered intravenously and will reverse the overdose effects within one to three minutes. It is short acting and must be repeated frequently, and the patient should be hospitalized, or at least watched closely, for twenty-four hours.

Cocaine (Angel Dust)
This drug is derived from the coca plant of Peru but is now made synthetically as well. It is addicting, although much less so than smack. Thousands of Peruvian Indians have become addicts because the land barons pay them in coca leaves instead of in wages. Its main use in
medical treatment is as a topical anesthetic. Cocaine is inhaled through the nose (snorted), chewed, or injected. Coke is closely related to speed, and overdose reactions are similar. Treatment may require the injection of short-acting barbiturates by a doctor.

DISEASES OF COMMUNAL LIVING

Living communally or collectively is a political threat to the traditional nuclear family, which is the basic structural unit of class society. Many communes have been forcibly broken up on the pretext of health hazards—such as hepatitis outbreaks or epidemics of diarrhea. Health departments often work in collusion with the police and use these health issues as “justifications” for invading your house or land.

People who live communally have a responsibility to their sisters and brothers to deal with communal-type diseases, either by preventing them or at least by stopping their spread. Most precautions are a matter of common sense: don’t shit near the communal water; don’t let a person with a contagious disease handle the communal food; etc.

If someone is sick, precautions should be taken as outlined by the health worker for the specific disease. Washing the hands frequently, especially after shitting, with a good antibacterial soap like Dial, Safeguard, or Phisohex can help stop the spread of infectious disease. Good nutrition with adequate, balanced vitamin intake helps keep resistance up. Commune or collective members who get sick should not try to conceal it but should alert their group so that preventive measures can be taken. The sick person should use a separate set of dishes and silverware, which should be washed separately from the other dishes, then sterilized before being returned to the communal supply.

Many communicable diseases have been eliminated in communist countries. For example, China has eliminated syphilis, and Cuba has eliminated polio. Attempts to eliminate certain diseases here have been ineffectual; these attempts rely on “case finding,” which means that a report is filed which includes the names of those who have been in contact with the disease. These reports are made despite your wish not to have them on record (as in the case of getting hepatitis from a contaminated needle). Be careful when you go to any health facility, even free clinics. Health departments vary in the degree of security they employ in keeping these reports confidential. In California, the reports are filed in a computer bank in Sacramento, where they are accessible to any agent who wants the information. If you choose not to let your case be reported, you can use a fake name. If you do this, you assume a
responsibility for the health of your sisters and brothers. You must contact them and tell them they have been exposed to whatever disease you have. This is especially important in the case of persons who have syphilis, which can cause permanent disability or death.

DIARRHEA

Diarrhea can be caused by several different bugs—the chief offenders are shigella, salmonella, and the toxins of the staphylococcus. If the shits are going around in a commune or collective, and they are not over in two or three days, a doctor should be consulted to try to determine the cause and source of the diarrhea. Persistent diarrhea can also be a symptom of an underlying disease, such as ulcerative colitis. Diarrhea in babies can be dangerous, because of fluid loss and rapid dehydration. All babies less than six months old should be seen by a doctor if the diarrhea lasts longer than twelve hours. General treatment for everyone includes taking only clear liquids, such as water, apple juice, bouillon, or gelatin, for the first twenty-four hours. Avoid milk, heavy or greasy foods, and citrus fruits for two days.

HEPATITIS

Hepatitis is a viral infection which concentrates in the liver, but its effects can be felt throughout the body. Joint pain, back pain, itching, and diarrhea are common effects. The disease usually starts with dark urine and light, clay-colored stools. At this time, before the eyes turn yellow (jaundice), it is most contagious. The virus comes out in the shit, urine, and to some extent, early in the course of the disease, in the saliva. The virus is also carried in the blood, so that the disease can be caught by using contaminated hypodermic needles. Shellfish and fresh water contaminated with fecal waste are also sources of infection.

There are at least two kinds of hepatitis. They are commonly called "serum" and "infectious," but it is hard to tell them apart. Both kinds can be transmitted by contamination with infected blood or shit. At the time the urine turns dark, the person should see a doctor to be tested for hepatitis. There are many causes of dark urine and jaundice, so the tests should be done in order to help determine the cause. If the tests show that the person has hepatitis, the people living with her may benefit from a protective shot of gamma globulin. Doctors should be asked about this, because they often forget about this preventive measure. Alcohol, reds, smack, and speed are very toxic to the liver and should not be used during hepatitis (if at all, ever!).
MONONUCLEOSIS

Mononucleosis is a viral illness characterized by a sore throat, fever, fatigue, swelling of the lymph glands, and sometimes a rash and jaundice. Many simple viral illnesses mimic the symptoms of mono, so if you have these symptoms, you should insist on a mono blood test, which can be done in almost any clinic. It can be transmitted by the saliva and used to be called “the kissing disease.” Mono can have severe complications and should be treated by a doctor.

SCABIES, CRABS

Scabies and crabs are skin infestations, usually in the scalp or the pubic hair; they are caused by a crab-shaped mite which burrows under the skin and causes intense itching.

You can catch crabs by sexual contact with an infested person, or by sleeping in an infested bed or sleeping bag. Jails teem with crabs and lice, and no attempt is made to eradicate them, thus increasing the misery of being in jail. The treatment is to apply Kwell, Cuprex or A200 lotion according to instructions. Repeat the treatment in one week to get rid of bugs that hatched after the first treatment. Thorough cleaning of bedding and clothing, especially underwear, at the same time as the treatment, is also necessary in order to kill eggs.

SYphilis

Syphilis is caused by a bacterium (Treponema pallidum) and can be fatal if it is not treated. The disease usually starts with a painless sore called a chancre at the site of the infection, which is usually on the genitals or the mouth. The chancre appears within ten to ninety days after the exposure, and it usually heals by itself within two to three weeks. A rash and fever may then occur, indicating the spread of infection throughout the body. This stage is called secondary syphilis; the disease is highly contagious during this stage. A symptom-free latent period, which can last for many years, follows in a week or so. Late syphilis can then appear, causing disease in the heart and arteries or in the brain.

Syphilis symptoms are similar in men and women but are less often recognized in women because the syphilis chancre is not so easily visible. The diagnosis is made from a scraping of the chancre, or from a blood test. A good rule for a commune is that anyone with a genital infection should have a test for syphilis three weeks after the infection starts. Since syphilis can be “silent,” not exhibiting any symptoms, and
since it can tag along with other genital infections, it must be sought out and dealt with. Treatment varies with the stage of the disease and consists of giving the patient a lot of antibiotics.

GONORRHEA

Gonorrhea (the clap) is caused by a particularly obnoxious bug called the gonococcus. The disease is usually limited to the genitals or rectum, but it can spread to other parts of the body and cause severe arthritis, eye infection, or other problems.

In men the disease usually starts as a discharge of pus from the penis (or rectum) and a painful, burning sensation during urination. These symptoms usually appear three to nine days after the sexual contact in which the man was infected. Pain in the balls is not uncommon. If left untreated, the disease may heal by itself, or may become localized in the prostrate, or may spread to the joints or heart valves. Untreated clap can also cause severe scarring of tissue and subsequent damage to the urinary tract. Treatment consists of penicillin shots and pills, or other antibiotics.

In women the gonococcus behaves like a super male chauvinist. It really fucks women over and can be entirely without symptoms, or it can cause severe infections of the fallopian tubes with high fever and excruciating pain. If untreated or inadequately treated, it can cause sterility or set up conditions for a pregnancy occurring in the tubes, which can be very dangerous. Gonorrhea can live in the female genital tract without causing a discharge, and therefore can be a hidden source of infection. It is harder to diagnose gonorrhea in women unless it is far advanced. If the examination and smear are not conclusive, the doctor should take a culture to try to identify the bug. In nontypical cases, doctors often give antibiotics blindly without knowing exactly what kind of infection the woman has. Unlike syphilis, there is no specific blood test for gonorrhea. If there is a question about the diagnosis, insist on having a culture made and on getting treated correctly.

VENEREAL WARTS

Venereal warts are caused by a virus. They are warty growths that occur on the penis, labia, or rectum. They are not serious, but they can spread and often cause anxiety. If there are only a few, they can easily be treated with a caustic liquid called podophyllin, which is applied carefully (only to the wart) every three or four days until the wart has been eaten away. If the podophyllin gets on normal skin, it causes severe irritation, so be careful! If there are a lot of warts, it may be necessary to use surgical techniques to get rid of them.
OTHER GENITAL INFECTIONS

All discharges from the genitals should be seen by a medical worker so that the right tests can be made and proper treatment started. Often it is necessary to treat all the sexual contacts of a person, as in the case of trichomoniasis or syphilis. Other common genital infections include yeast (monilia), nonspecific bacteria, and some virus-like agents. Remember to have a blood test for syphilis three weeks after any genital infection. Women shouldn’t use any alkali (soda) douches, because they change the acidity of the vagina and allow harmful bacteria to grow. (If you must douche, one teaspoon of vinegar in a quart of water is best.) Certain antibiotics also interfere with the normal vaginal ecology and permit the overgrowth of harmful organisms (especially yeasts), so don’t use antibiotics unnecessarily.
Every Revolutionary a Medic

There are many things people can do to prepare for the necessity of using medical knowledge in confrontation situations. These preparations can be either collective or personal. All personal preparations should be seen in the context of collective preparation.

PERSONAL PREPARATION

At the level of the individual, the following five points are essential:

1. Everyone should have had a tetanus toxoid shot within the past five years. Tetanus is a disease which can accompany street wounds, but it is totally preventable. A tetanus shot will protect you for at least five years. If our health industry were interested in the well-being of our citizens, tetanus would have been eliminated long ago.

2. All persons with a known medical condition should carry identification cards or tags. For example, "I am a diabetic on insulin"; "I have sickle cell anemia"; "I take digitalis"; "I have penicillin allergy."

3. If you take medicine, carry a supply of it with you as a precaution in case you are arrested and the police refuse to provide you with medication, or if you get stranded somewhere. Often the police will confiscate your medicine, but if you can prove that you take it (carry it in a pharmacy bottle, with the prescription label on it), you have good grounds for a suit against the police. For example, a diabetic at San Francisco State College had her insulin taken away when she was busted. She was reached by a movement doctor in jail, who got her insulin back. A lawsuit was later instituted in her behalf.

4. Carry a heavy magazine or newspaper to use as a splint. When rolled up, it will fend off a club and can be used effectively in other ways.

5. The clothing you wear should be protective. Long-sleeved shirts with high collars and tight cuffs will protect you against gas. Wear a belt which can be used as a tourniquet or weapon. Wear hard shoes; never wear sandals. Some sort of head protection is advisable. You can buy a helmet liner at any army surplus store; these liners are light in weight and will protect your head from a club. Men should wear jock cups.
Women should not wear earrings. *Nothing* should be worn around the neck. No one should wear false teeth or contact lenses. If you are knocked out, you can choke on a set of false teeth. If you are maced or gassed while wearing contact lenses, the lenses can erode the cornea of the eye and cause blindness. A collective should buy plastic prescription eyeglasses for all members who need them.

**COLLECTIVE PREPARATION**

At the collective level, the following five points are essential. Some of these preparations can be carried out by your collective alone, but others may require the help of a medical group. A local chapter of the Medical Committee for Human Rights, or certain other medical groups, might be able to help you. (If not, organize your own.)

1. Know the name and phone number of a movement doctor to call if you have been shot or arrested. While most doctors will report a bullet wound (as they are required to do by law), you should have access to one who won't. In jail, you will get inadequate medical care (if you are lucky enough to get any at all), so it is important to know a movement doctor who will come into the jail to see you.

2. Everyone in the movement should be in good health. An untreated illness can be as crippling as a bullet wound.

3. Each movement house should be a self-sustaining first-aid center under the direction of a medic. Certain houses should also contain "heavy" medical and surgical equipment to deal with severe injuries. Any house that stores such equipment should be covered under the protective blanket of a movement physician's license, because possession of much of the necessary equipment is against existing laws. Efforts should also be made to organize community institutions within the area for functioning as first-aid and refugee centers. Churches and movement stores have been used successfully in the past.

4. All members of a collective should know basic first aid, and some members should study and learn much more. Movement medical groups or free clinics can often provide both basic and advanced training.

5. All cars belonging to collective members should contain first-aid kits, for use in such emergencies as auto accidents.

* * *

We hope that you have learned some basic medical skills from reading this book and have some feeling for the politics of health. Health care in this country is a multibillion-dollar-a-year business for the corporate medical elite, the American Medical Association and its doctors, the prestigious hospital boards, the directors of the drug and
hospital supply companies, and the directors of the university medical empires. Health care is a two-class system which reinforces racism and sexism, while catering to professionalism. Health care is expensive and thus readily available only to those who can afford it. Those who must depend on state or city clinics are forced to tolerate debasing conditions, long waits and often second-class care. Preventive health care is almost non-existent. The situation is reaching crisis proportions and the proliferation of numerous National Health Insurance proposals indicates that the health issue will be a major domestic struggle in the next years.

There is a growing health movement which is beginning to struggle with this crisis. People are being trained to take care of injuries resulting from police violence and accidents. Communities are getting together to create alternatives, such as people's clinics, and to demand good care from existing establishment facilities. Women have formed women's health collectives in many cities to educate themselves and other women about their bodies, to create women's clinics, and to research and write people's medical literature. The Black Panther party has initiated a nationwide program to educate people about and do research on sickle cell anemia, and they and other Third World groups are organizing around health issues like lead poisoning and malnutrition. Prisoners are making demands for decent medical care: a principal demand of the Attica rebellion was for decent medical care. Hospital workers have joined with community groups to demand better patient conditions as well as better working conditions in hospitals and nursing homes. A nationwide struggle over National Health Insurance has been started by MCHR, with community and consumer groups.

We hope that you will take a medical course with some of your friends, your collective, neighbors, or fellow workers. Taking a course and really practicing the techniques described here is critical to learning first aid. Obviously it isn't feasible for everyone to get medical training in the near future. The next best thing is for everyone to learn as much as possible, and to spread medical knowledge by having workshops at rallies and demonstrations. Begin to put your medical knowledge to use and set up medical courses for your communities. Door-to-door preventive programs—such as those by the Panthers with sickle cell anemia, the Young Lords with lead poisoning, and Los Siete with nutrition surveys—are good examples of how preventive medicine can be brought to the community by health workers. The bibliography on page 244 lists books which can help extend your medical skills and your understanding of the health system. We hope you will use the skills and knowledge you have learned in the health struggle—as a street
snedic, in a clinic, in a community health project, or in a political study group—to investigate health conditions and to initiate action around what you’ve learned. Decent health care can only be achieved by community-worker control of all health institutions.

We hope you will write to us with your comments and criticisms so that this book can help serve the health struggle better. Write to: International Liberation School, c/o MCHR, P.O. Box 7677, San Francisco, California 94119.
Appendix A

MEDICAL SUPPLIES

The following is a list of supplies that do not require a doctor’s prescription. These supplies should be stored in every movement home or community organization office.

Bandaging Supplies
Sanitary napkins or clean four-by-four gauze pads
Sterile four-by-four and two-by-two gauze pads
Telfa four-by-four and two-by-two gauze pads
Klings
Sterile roller gauze
Adhesive bandages
Eye patches
Adhesive tape (quarter-inch and half-inch)
Light, stiff boards for splinting
Pretreated pads for burns (Xerofoam gauze or Vaseline gauze)
Ace bandages (three-inch and five-inch)

Cleaning Supplies
Hydrogen peroxide
Iodine
Phisohex
Irrigation syringes
Small bowls for solutions
Sterile applicators (such as sterile Q-tips)
Cotton balls

Other Supplies
Sterile drapes or towels (preferably disposable)
Sterile gloves
Sterile masks
Toothed forceps
Tongue depressors
Blood pressure cuffs
Oral thermometers
Flashlight
Scissors
Mineral oil
Smelling salts
Aspirin
Bicarbonate tablets
Salt tablets (with dextrose, if available)
Alcohol prep packet (alcohol-soaked two-by-two gauze pads in tin-foil packets)

The following supplies should be in every street first-aid kit:
Sterile gauze pads (four)
Sanitary napkins (two)
Klings (two)
Army battle dressing (one)
Army compress (one)
Adhesive bandages (five)
Petroleum gauze (one)
Eye pad (one)
Adhesive tape (one)
Alcohol prep packets (six)
Triangular bandage (one)
Tourniquet (one)
Ammonia ampules (two)
Tongue depressor (one)
Eye drops
Saline solution (in plastic squeeze bottle)
Mineral oil (in plastic squeeze bottle)

All medics’ cars should contain a first-aid kit plus the following:
Blanket
Splints
Aspirin
Salt tablets
Mercurochrome
Phisohex
Flashlight
Appendix B

FURTHER TRAINING

You can learn as much as you are into spending time and energy in study and practice. Practice can be obtained by volunteering at a free clinic; working with a movement doctor as she takes care of people—either at her office or on house calls; teaching first aid and being prepared at every demonstration; and getting local doctors and nurses to give special courses to groups of medics.

In some communities, medics have obtained medical textbooks and set up libraries available to any health worker for study. We suggest that the medic start with the basic material and then move on to medical textbooks—the language gets a little heavy unless you’re used to it and know what it means.

Some good books and pamphlets to start with are put out by—believe it or not—the U.S. government. Write to the U.S. Government Printing Office, Division of Public Documents, Washington, D.C. 20402, and ask for their catalog of health and medical publications. They will send it back with an order form and you can pick out what you want. One government publication that is especially good, but hard to come by, is the Navy Medical Corpsman Textbook.

Nursing texts are a good next step. The technical language used is usually defined, and procedures for giving injections, washing wounds, keeping charts, caring for the injured at home, etc., are all explained.

If the community you work with has special concerns, or you want to broaden your knowledge, you can study different diseases or surgical procedures, etc., in medical texts. Don’t get freaked out by the professional bullshit and mysticism in some of them—if you can’t read one, try others. The Lange series of handbooks are excellent and are updated every two years. The ones on surgery and obstetrics and gynecology are especially good—clear, concise, and inexpensive. The Physician’s Desk Reference (P.D.R.) contains some useful information about prescription drugs despite the fact that it is put out by the
profit-oriented drug companies. Current Diagnosis and Treatment and the Merck Manual are other good basic books.

Finally, the movement is beginning to come out with our own texts and journals. The Birth Control Handbook is an excellent review of all (except the very latest) kinds of birth control, written from a woman’s point of view. It’s forty-five pages and is available from P.O. Box 1000, Station G, Montreal 130, Quebec, Canada. The cost is twenty-five cents for the first, ten cents for each thereafter up to twenty, and $4.00 per thousand. Our Bodies, Our Selves is a long, comprehensive description of how women’s bodies function, including some chapters on sexuality, abortion, contraception, etc. It does not really deal too much with women’s diseases, but other women’s health collectives are getting that together. It’s available from the New England Free Press, 791 Tremont Street, Boston, Massachusetts 02118 (thirty-five cents).

The Medical Committee for Human Rights puts out a newspaper, Health Rights News, available from them at 710 South Marshfield, Chicago, Illinois, for $3.00 per year, which deals extensively with current health struggles and the health power structure. Health-Pac Bulletin, published by the Health Policy Advisory Center at 17 Murray Street, New York, New York 10007 ($5.00 per subscription), is a radical analytical bulletin dealing with health issues, specifically in New York but applicable nationally. Health Law Newsletter, available from 2477 Law School, 405 Hilgard Avenue, Los Angeles, California 90024, deals with legal rights and protection for health consumers. Health-Pac has also written a book, The American Health Empire: Power, Profits and Politics (Random House).

There are also some excellent books describing the already existing people’s health systems in China and Vietnam. In Away With All Pests (Monthly Review Press), Dr. Joshua Horn, a British surgeon who spent fifteen years in China and who participated in all aspects of Chinese medical care, describes China’s medical system and the changes it went through in the Cultural Revolution. The Scalpel and the Sword (Prometheus Books) is the story of Dr. Norman Bethune, a Canadian surgeon who became a national hero in China because he went there with his medical skills and died while serving the People’s Army during the revolution. It is available from China Books and Periodicals, 2929 24th Street, San Francisco, California 94110. Also at China Books is Medical Workers Serving the People Wholeheartedly, a moving photographic essay of the health system in China ($1.25). Two issues of Vietnam Studies deal with health care in Vietnam: “North Vietnamese Medicine Facing the Trial of War” and “25 Years of Health Work” ($1.00).
Appendix C

MEDICAL RIGHTS AND DANGERS

Dangers in Going to Establishment Health Facilities

The health industry and its agents and facilities are often politically hostile. When it becomes necessary to go to an establishment facility—a hospital, clinic, or doctor’s office—remember that the name you give becomes a matter of record for the police. If you are planning a lawsuit, make sure to give the name you plan to sue under. Doctors are required by law in every state to report immediately by phone and in writing, to the police, any gunshot wound, knife wound, or act of violence, even if self-inflicted.* In going to a medical facility, remember that public ambulances are likely to radio ahead reports of such wounds, and you may find the police waiting for you at your destination. If possible, use a private vehicle, preferably a movement ambulance with trained personnel. Police often accompany public ambulances on routine calls for injuries. Admission clerks, nurses, or volunteers may take it on themselves to report any injury that they find suspicious. Police will answer their calls promptly. If you are interrogated in a hospital, give only the name and address that you registered with; then demand to see a lawyer. Demand to be treated before any police hassle.

Hospitals near a riot area will be swarming with uniformed police and plainclothesmen; the hospital may be inaccessible due to cordon or curfew. The Berkeley police plan for an attack on the national headquarters of the Black Panther party included taking over the local community hospital during the attack. Avoid hospitals unless you are severely injured and there is no alternative. Private doctors are usually much less likely to harass you.

You can be held for seventy-two hours in most states on the word of a physician that your mental health is a danger to yourself or to others. In California, as of July 1, 1969, any “professional person” has this

* In California, Penal Code 1160-2 makes failure to so report a misdemeanor.
power over you (the law does not specify who qualifies as a “professional”). This is currently being challenged in the courts. If you are so detained, demand a lawyer; either you or she can notify a movement doctor who will arrange for a movement psychiatrist to see you and try to get the hold lifted. If threatened with this situation, do not react violently (unless escape is certain), as they will use this against you. After the seventy-two hours, they have to bring you before a judge and a court psychiatrist, and cause for continuing the hold must be demonstrated by the person who is signing the holding warrant.

Your health is the paramount consideration in making a decision about whether or not you should go to an establishment facility. If you have any serious injury (bullet wound of the abdomen, chest, or head; shock; or bleeding which can’t be stopped), you will need the facilities that only a hospital can provide. Your life is at stake, so the decision to go or not becomes a matter of weighing survival from the wound against survival from retaliation by the establishment. A movement doctor or medic can tell you what your chances are, but you and your organization must decide. If you are unconscious, your comrades must make this decision for you.

Medical Rights

Rights in the streets □ There are no rights. Your health rights dissolve as your constitutional rights dissolve. If you are injured in the street, have your friends pull you out of harm’s way. If you are unable to move, call for a medic. If you are busted, demand medical attention by screaming for a doctor. Medics and doctors are not immune from police attack, and it is often hard for them to get to you. If you are treated medically, ask the doctor to document your injury. If medical care is refused, get the names of witnesses who can testify to this; it will strengthen your case later.

Rights while under arrest, prior to being booked □ If injured, demand medical attention immediately. After your arrest, the state assumes complete responsibility for caring for you, and you have a legal right to prompt medical attention. If your medications are confiscated, demand them back and demand to see a doctor. If you are denied medical care, try to remember the time and nature of the injury as well as the badge number of the cop denying care.

Rights in jail □ California law states that a doctor must be “available” twenty-four hours a day in any jail facility handling over one hundred persons at any one time. Other states have similar laws. Learn
what each state law is with regard to medical rights in jail. "Available" in California means that the doctor can be reached by phone. Jail guards rarely, if ever, call the doctor at the request of a prisoner. You will therefore get no care unless you can get word to your movement doctor. If allowed your telephone call, have your lawyer or bondsman call her. It is your right to demand your own doctor, but it may take a court order to get her in to see you. It is very important to call for a doctor whom you know because:

1. Guards won't call the jail doctor. Your doctor can put pressure on him to provide treatment or hospitalization at a professional level. A jail doctor won't testify in your behalf, as this would cost him his well-paying job.

2. When the movement doctor gets in to see you, she can provide treatment and press for hospitalization if necessary.

3. She can document injuries for later suit.

4. She can promise LOUDLY to return to check on you; this may help prevent further beatings.

Medical rights once you get to a hospital □ Whether you come to the hospital by yourself or are brought in by the police, remember that your medical records are privileged information. If a policeman confiscates or copies them, you have the right to press charges against him. Recently, the House Un-American Activities Committee (now called the House Internal Security Subcommittee) subpoenaed privileged medical information and tried to force doctors to testify against their patients. Most doctors won't resist this pressure, so watch what you say. If you are under guard, demand to see the doctor alone. You have the right to talk with your doctor without being overheard by the guard. If this is denied or impossible, threaten to sue the hospital for revealing privileged communication. If you are in the hospital and under arrest, technically you are still in jail. This means that you can have visitors only during jail visiting hours, not during hospital visiting hours, which are usually more liberal. Do not let the nurses or doctor take away your visiting rights. Once bail has been met, the guard must leave at your request.

You have a legal right to your medical record. It is important to obtain the initial doctor's report for documentation of the injury. In most hospital emergency rooms, these are made in duplicate. Demand your copy. Know exactly what's wrong with you for your own defense. Insist on full documentation of all your injuries. Good documentation includes X-rays of any injured part of the body, photographs, and appropriate lab tests. If you have been clubbed on the back, make them
check your urine for blood. Demand a local anesthetic prior to having wounds sutured. If the doctor refuses any of these things, threaten him with a malpractice suit.

If for some reason the police want a blood or urine test for drugs, you can refuse to have it done. In California if you are arrested for drunk driving and refuse to take a blood, urine, or breath test for alcohol, your driver’s license will be suspended. (If you submit to a blood test, make sure that the doctor doesn’t use alcohol or iodine to clean your skin, because the alcohol will cause your blood alcohol reading to appear high.)

No hospital can refuse to treat an emergency because of the patient’s inability to pay. They define what an emergency is; but if it is politically important to be treated at a particular hospital (i.e., removal from the scene of violence), threaten to sue if you are refused treatment.

Your rights as a patient in a hospital are very poorly defined. You have a right to privacy, which includes the physical setting in which you are examined and treated, the privacy from undesired exposure to students for teaching purposes, and the confidential privacy of your hospital record. You have a right to quality care; acts that hinder that care can be considered malpractice (for example, being transferred to another ward or diagnostic facility without the accompanying hospital records).

Finally, you have the right to be informed by the doctor of any contra-indications to a particular therapy, of any complications that may ensue, and of alternate forms of therapy. This is the right of “informed consent.” Without your informed consent (except in a life-and-death emergency), no doctor or hospital legally may perform studies or treatments on you.
Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances.

A well regulated militia, being necessary to the security of a free State, the right of the people to keep and bear arms, shall not be infringed.

The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no warrants shall issue, but upon probable cause . . . and particularly describing the place to be searched, and the persons or things to be seized.

In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury . . . and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the assistance of counsel for his defence.

Excessive bails shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.