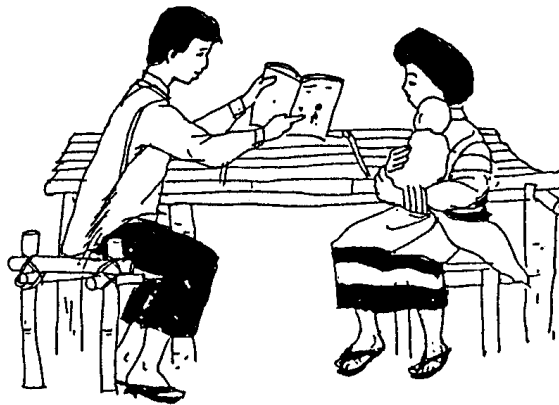


# VILLAGE HEALTH

A Handbook for Village Health Workers in Southeast Asia



## BOOK 2

UNIT 1 - THE VILLAGE HEALTH WORKER

UNIT 2 - HOW TO PREVENT MANY HEALTH PROBLEMS

UNIT 3 - NUTRITION

UNIT 4 - HOW TO TAKE CARE OF SICK PEOPLE

UNIT 5 - FIRST AID

Editors:

J. H. Richardus MD PhD DTM

M. Wannemacher MA

Illustrations:

G. Sharmars

Produced by the Community Medical and Development Text Translation Project (CMDTTP), in cooperation with the Payap University Research and Development Institute and the Summer Institute of Linguistics, Chiang Mai, Thailand.

1993, Revised 2001

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## VILLAGE HEALTH

The "Village Health" English version consists of 6 books:

Book 1: Introduction and Translation Manual

Book 2: Unit 1 - The Village Health Worker  
Unit 2 - How to Prevent Many Health Problems  
Unit 3 - Nutrition  
Unit 4 - How to Take Care of Sick People  
Unit 5 - First Aid

Book 3: Unit 6 - The Body and How the Body Works  
Unit 7 - Introduction to Sickness  
Unit 8 - How to Examine a Sick Person  
Unit 9 - How to Use Medicines

Book 4: Unit 10 - Signs Index  
Unit 11 - List of Sicknesses  
Unit 12 - Dehydration, Diarrhea and Vomiting  
Unit 13 - Skin Problems  
Unit 14 - Eye Problems  
Unit 15 - Teeth, Gums and Mouth

Book 5: Unit 16 - Family Planning  
Unit 17 - Women's Health, Pregnancy and Childbirth  
Unit 18 - Health and Sickness of Children  
Unit 19 - How to Prevent Disabilities  
Unit 20 - Health and Sickness of Old People  
Unit 21 - Addiction

Book 6: Unit 22 - Family and Village Projects

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If you are interested in translating this book, please contact the editors at the following address:

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This book series has currently been translated into Thai, Jinghpaw, Rawang, Burmese, Sgaw Karen, and Lisu.

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## UNIT 1

### THE VILLAGE HEALTH WORKER

A village health worker helps his family and neighbors have better health. A village health worker must be kind and must want to help people. A village health worker must also be able to diagnose sickness and treat sickness. Village health workers can learn about health when they watch experienced health workers, when they help other health workers, when they go to a training program and when they study at home.

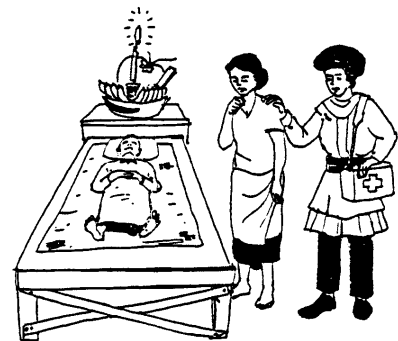


**A VILLAGE HEALTH WORKER IS A PERSON WHO HELPS MAKE HIS VILLAGE A MORE HEALTHY PLACE TO LIVE.**

The village health worker tries to prevent sickness. The village health worker helps people when they get sick. But, the health worker also has another job. [The village health worker must care about the feelings, the mind and the spirit of the sick person, not just about the body.] The way you treat people is just as important as what you know about medicine and preventing sickness.

#### 1. BE KIND.

[To help the sick person feel comfortable with you, show them a sign that you care. Smile, put your hand on the shoulder of the sick person, or speak kindly to them.] Treat other people the same as you want them to treat you. Even when you must hurry, try to remember how other people feel. [It helps to ask yourself, "How do I want people to treat me when I am sick?"] Be especially kind to people who are very sick or people who might die. Also, be kind to the sick person's family. Show the family that you care about the sick person.

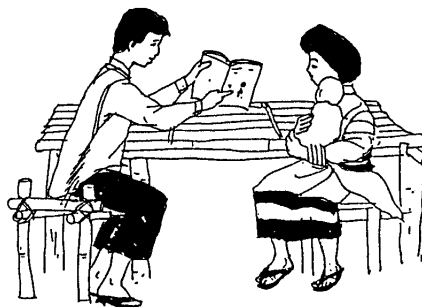


## 2. SHARE YOUR KNOWLEDGE.

[Where should health teaching be done? By whom?]

A health worker's most important job is to teach other people how to have good health. The health worker should teach people:

- \* How to prevent sickness.
- \* How to know when they are sick and need help.
- \* How to take care of sick people.
- \* How to best use modern medicines and traditional medicines.
- \* How to choose, grow and prepare nutritious foods.



You should demonstrate how to do the things you teach. You should let the people practice what you teach and make sure they do it correctly. Nothing you learn from this book series should be dangerous to anyone. If you teach the information carefully then people will benefit.

## 3) RESPECT YOUR PEOPLE'S TRADITIONS AND IDEAS.

[Are there any harmful traditions? What is the church's attitude towards this? Leader's attitudes?]

Even though you learn something about modern medicine, you should not criticize the traditional ways your people treat sickness.

**YOU CAN USE MODERN MEDICINE TOGETHER WITH THE BEST TRADITIONAL MEDICINE.**

[If traditional medicine really helps sick people, then use the traditional medicine. If the traditional medicine or customs can harm sick people then do not use the traditional medicine or customs. For example, if a mother with a newborn baby is allowed to eat only rice, peppers and salt, the mother and baby might become weak and sick. You need to help the woman understand that she must eat meat, nuts, fruits and vegetables to make herself and the baby healthy.]



[Suggest change carefully. Find out why the person does the harmful thing, then decide on a helpful change that you both agree with. Never just tell people that they are wrong. People are slow to change their beliefs and traditions. People follow what they believe is correct and you should respect people's beliefs. Try to help people understand why they should change. Then the people might want to change.]

#### 4) ONLY DO HEALTH WORK THAT YOU KNOW HOW TO DO.

[How are people humiliated? How do people save face? What are consequences of improper treatment?]

A good health worker knows when to treat a sick person. A good health worker knows when the sick person needs additional medical help. A good health worker knows what he can do and what he cannot do. You will be a good health worker if you use all the skills that you learn, but do not try to do things that are too difficult. **Do only the health work that you know how to do.** Do not try to do things that you have not learned about. Do not try to do things that you are not sure about if they might harm or endanger someone.

Often, the things you decide to do or not to do will depend on how far you must travel to get better help. If a health center is near, you can send or take the sick person to the health center. But, if the health center is far, you might need to treat a very sick person who cannot go to the health center. Do not take unnecessary chances. Take the sick person to a health center if you are not sure what to do. But, when the danger is clearly greater if you do nothing, do not be afraid to try something you believe will help the sick person.

#### 5) LEARN MORE.

Learn more whenever you can. Study information that will help you to be a better health worker, teacher or person. Always be ready to ask questions to doctors, nurses, agricultural experts, or anyone else you can learn from. Look for opportunities to attend classes and learn from people with experience. Your most important job is to teach people about good health. If you do not learn more, then soon you will not have anything new to teach other people.



#### 6) DO THE THINGS THAT YOU TEACH.

[People will learn more from what you do than from what you say. A health worker must be an example of good habits and be a good person so that people will respect him and do what he says. For example, before you ask people to make a latrine, be sure your own family makes a latrine and uses the latrine. If you organize a group of people to dig a hole to put garbage in, be sure that you work with everyone to dig the hole.





No



Yes

**[A GOOD LEADER DOES NOT JUST TELL PEOPLE WHAT TO DO, HE ALSO IS A GOOD EXAMPLE AND HELPS PEOPLE.]**

### **7) HELP PEOPLE UNDERSTAND AND ENJOY HEALTH WORK.**

[If you want other people to improve their village and care about their health, then you must help the people understand why you do things. People do not want to do work that they think is useless. People want to do work that will help them. Be sure that people understand how they will benefit from health work. For example, if you tell people to wear shoes, be sure to tell them that shoes prevent foot wounds and prevent worms in the soil from going into the feet and making them sick.]

#### **Some normal benefits of good health are:**

- \* **The person will be stronger and feel better.**
- \* **The person will be able to do more work in less time.**
- \* **The person will live longer and enjoy life more.**
- \* **The person will have more money because he can work better and not spend a lot of money on medicine.**
- \* **The family will be happier and the children will be able to study better at school.**

[Try to make community work projects fun. For example, it is hard work to dig latrines. But, if the whole village helps to dig the holes during a 'work festival' that includes food and music, then people will do the job and have fun. Children will work hard and have fun if they can turn work into play.] [How is payment made? Are services of the same type accepted in return for work done?]

[People might or might not pay you for your work, but never refuse to help a sick person who is poor or who cannot pay. You should care the same for all sick people. People are worth much more than money.]

## 8) PREVENT SICKNESS BEFORE SICKNESS STARTS.

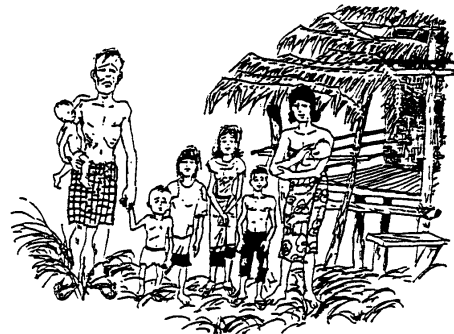
A good health worker tries to prevent sickness before sickness starts. A good health worker encourages people to protect themselves from sickness. People can prevent many sicknesses. Your job is to help people understand the causes of sickness and prevent the sickness. Most sicknesses have many causes. To prevent the sickness you must look for the cause of the sickness and stop the cause.

For example, in some villages diarrhea kills many small children. The cause of diarrhea is germs inside the body. Germs which cause diarrhea can spread from person to person when the germs that cause diarrhea in feces get into water or onto hands. Then people drink the dirty water or put food in their mouths with dirty hands and the germs that cause diarrhea go into the body. People can prevent the germs that cause diarrhea from entering the body. People can dig latrines and use latrines so that feces are not left on the ground for children to touch. You can teach people to wash their hands. If people wash their hands, then the germs which cause diarrhea will be washed away so that the germs do not go into the mouth when the person eats food. You can teach people to boil water. If people boil water, then the germs which cause diarrhea will be killed and the water will be safe to drink.

But the children who suffer and die most often from diarrhea are the children who do not eat nutritious foods. Children who do not eat nutritious foods do not have the strength to fight the diarrhea germs. Therefore, you must be sure that children eat nutritious foods so that diarrhea does not kill them.

[Some reasons that children do not eat nutritious foods are:

- \* Because mothers do not know what foods are nutritious. For example, breastmilk is very nutritious.
- \* Because the family does not have enough land to grow the nutritious foods.
- \* Because sometimes people grow nutritious foods or raise animals, but they sell all of the nutritious food and animals and do not eat any of the nutritious food or animals.
- \* Because sometimes people do not use their land to grow nutritious foods.
- \* Because parents sometimes have more children than they can provide nutritious food for.
- \* Because sometimes fathers lose hope and buy alcohol, or opium or gamble instead of buying nutritious food.
- \* Because people do not plan so that they will have nutritious food all year.
- \* Because people do not know that when they work together and help each other they can grow more nutritious foods.]



You can see that many things cause diarrhea. Some causes are obvious and some causes are hidden. Bad use of land causes a lack of nutritious foods. A lack of nutritious foods causes children to be weak. Diarrhea can kill weak children. Diarrhea can spread between people who do not use latrines or who do not wash their hands. You can probably think of other causes. It is your job to help people understand the causes of sickness and to prevent the causes of sickness.

To prevent diarrhea you can:

- \* Teach people how to build and use latrines.
- \* Teach people to grow and eat nutritious foods.
- \* Teach people how to boil or filter water to drink.
- \* Teach people to wash their hands.
- \* Teach people how to have less children if necessary.

See Unit 2, "How to Prevent Many Health Problems" for teaching material.

A good health worker helps people when they are sick, but he also teaches people to help themselves. A good health worker stops sickness before sickness starts.

[What is their concept of modern medicine? How does it work?]

You cannot cure all health problems, even with modern medicine. Medicine can help cure many health problems, but modern medicine cannot cure every health problem. If people eat good food, drink clean water, sleep enough and keep themselves and their homes clean, then they will stop sickness better than medicine.

## UNIT 2

### HOW TO PREVENT MANY HEALTH PROBLEMS

[What is the people's concept of prevention? Do you know of examples where they tried to prevent something from happening?]

People who eat nutritious foods, drink clean water, clean their bodies, clean their homes, clean their villages, and have a health worker vaccinate their children, can prevent most sicknesses.

#### NUTRITION

Nutritious foods make the body strong. A strong body can prevent sickness. A strong body can fight sickness. Sick people should eat nutritious foods to make them strong again. After a person is no longer sick, he should eat one extra meal each day for 1 or 2 weeks so he can gain strength. Eating nutritious food is very important. See Unit 3 "Nutrition" for more details.



#### HOW SOME SICKNESSES SPREAD FROM ONE PERSON TO ANOTHER PERSON

[What is the cultural perception of germs?]

Germs and worm eggs cause many common sicknesses in the intestines. The germs and worm eggs enter the body through the mouth. After a person gets sick, the germs and worm eggs live in the feces. The germs and worm eggs also live in animal feces. If human or animal feces get on a person's hands, in water or on food, then the germs and worm eggs can spread to other people. The germs and worm eggs from the feces of a person or animal can get into the mouth of another person from:



dirty hands

dirty food

and dirty water.



Sicknesses that spread when germs from feces get into a person's mouth include:

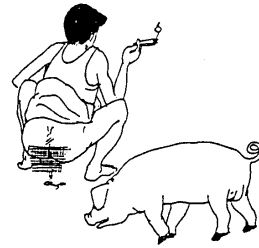
- \* worms
- \* diarrhea
- \* hepatitis, typhoid fever, polio and cholera

[You have probably noticed how tiny bugs can eat a plant or a tree. One bug does not hurt the plant very much, but many bugs can kill the plant. Germs are like tiny bugs. Many germs in your body can harm your body.]

You might never see the feces that gets on your hands, on your food or in your water. The germs and worm eggs are so small that you cannot see them. When an animal defecates, the rain can wash the feces into the river. The feces will dissolve in the water, but the germs and worm eggs will still be alive in the water. A person who drinks the water will not see the germs and worm eggs in the water, but he will get sick because the germs and worm eggs are in his body.

Pigs, dogs, chickens and other animals commonly spread germs and worm eggs to people. For example:

A man with diarrhea defecates behind his house.



A pig eats the man's feces. There is feces on the pig's nose and feet.

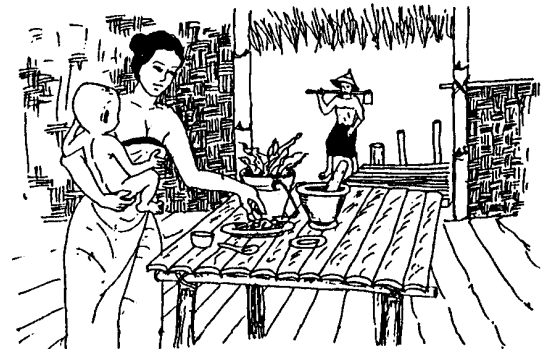
Then the pig walks by the door of the house and some of the feces comes off the pig's foot.



A child is playing in front of the door and touches the feces that came off the pig's foot.

Later the mother picks up the child and some of the feces sticks to the mother's hand.

Next, the mother prepares food, and forgets to wash her hands. Some of the feces from the mother's hand gets on the food.



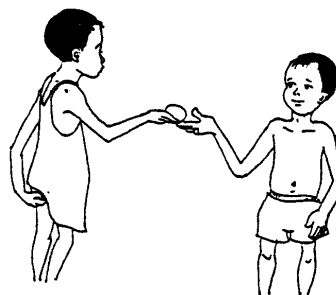
The family eats the food.



And soon, the whole family has diarrhea.

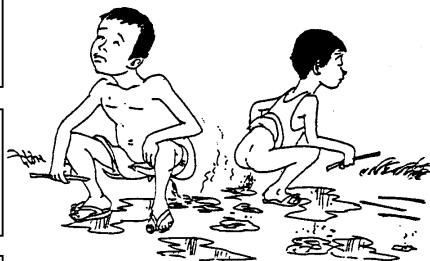
The following story explains another way germs spread from feces to a persons mouth:

A small child who has worms in his intestines touches his anus after he defecates and does not wash his hands. His fingers are dirty from his feces. The feces on his fingers contain hundreds of tiny worm eggs that are too small for people to see.



The child picks up some food. Some of the worm eggs stick to the food. The child gives some of the food to his friend.

When his friend eats the food, he swallows the worm eggs. The worm eggs go into the intestines and become worms.



Soon the friend will have worms and diarrhea just like the child who gave him the food.

You can prevent diarrhea and other sicknesses if you keep your body clean, your home clean and your village clean. If people do not keep their families and homes clean then many people in the village will be sick because of diarrhea and worms. If many children die from diarrhea, then bad nutrition is also part of the problem.

**TO PREVENT DEATH FROM DIARRHEA, CLEANLINESS AND GOOD NUTRITION ARE IMPORTANT.**

People also pass germs when they cough or sneeze. Mosquitoes, ticks, lice and fleas can pass certain germs when they bite people. Flies carry germs from feces to food. Germs in blood can pass between people when they use the same needle. Sexual contact can also pass certain germs.

## CLEANLINESS

[What is the target group's concept of clean?]

A clean body, a clean home, a clean village, clean food and clean water are all important to prevent sickness. When you clean your body, you wash away germs that can cause sickness. When you clean your home and village, you get rid of dirt, feces and objects where germs live and grow.

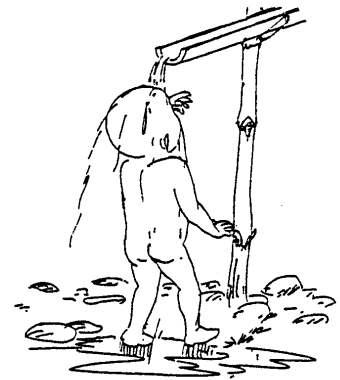
### HOW TO KEEP YOUR BODY CLEAN:

[What are bathing habits? Is soap available?]

- \* Always wash your hands with soap and water when you get up in the morning, after you have a bowel movement, after you clean a child's buttocks and before you eat or prepare food. If you don't have soap, just use water. Parents and older brothers and sisters should help small children wash their hands.

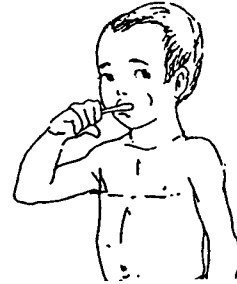


- \* Bathe often. Bathe after you work hard or after you sweat a lot. When you bathe, you wash away germs that cause skin infections, pimples, itching and rashes. Someone should bathe sick people every day. [Bathing does not cause sickness or make sickness worse. Use warm water to bathe a sick person if necessary.]



\* Do not go barefoot or allow children to go barefoot outside. Hookworms in the dirt can enter the bare feet. Hookworms cause diarrhea and severe anemia.

\* Brush your teeth every day and after each time you eat sweets. If you do not have a toothbrush or toothpaste, you can rub your teeth with a mixture of salt and baking soda. Brush your teeth to prevent tooth holes and tooth aches.



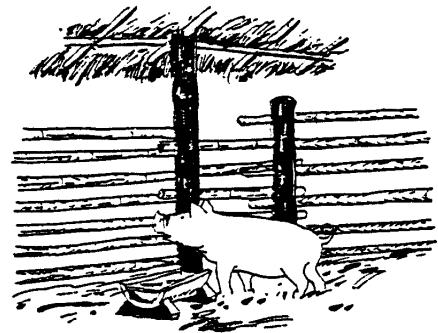
#### HOW TO KEEP YOUR HOME CLEAN:

\* Do not let animals come into the house. Do not let animals walk in places where children play. Keep animals in a fence or cage if possible. Animals and animal feces spread sickness.

\* Do not let dogs lick children or get in beds. Dogs can spread sickness.

\* Treat the whole family against lice if necessary. Lice and fleas spread many sicknesses. Dogs and other animals that carry fleas should not come into the house.

\* If children or animals have a bowel movement near the house, clean up the feces immediately. Teach children to use a latrine or at least to defecate far from the house and cover the feces with soil.



\* Hang or spread sheets and blankets in the sun often to make lice and bugs go out. Lice and bugs spread sickness. If there are bugs or lice in your sleeping mats, then pour boiling water on the sleeping mats and wash the sheets and blankets on the same day.

\* Do not spit on the floor or where children play. Saliva can spread sickness. When you cough or sneeze, turn your head away from people or cover your mouth. The saliva in a cough or a sneeze can spread sickness.

\* Clean the house often. Sweep and wash the floors, walls, and under the furniture. Fill in cracks and holes in the floor or walls where cockroaches, bedbugs and scorpions can hide.





## HOW TO KEEP YOUR VILLAGE CLEAN:

- \* Clean around wells and public water sources. Do not let animals go near the place where people get water to drink. If necessary, build a fence around the place where you get water to drink to keep animals out.
- \* Clean village water storage containers often. Cover water storage containers. If you do not have clean water, then collect rain water from your roof. Rain water is clean. Let the rain wash the roof for a few minutes, then uncover your clean containers to catch the water. Rainwater from tin or tile roofs is cleaner than rainwater from grass roofs.



- \* Do not defecate or throw garbage near the water hole. Try to keep rivers clean upstream from any place where you get water to drink. Collect water to drink at the highest point of the stream near the village.



[What is done with garbage?]

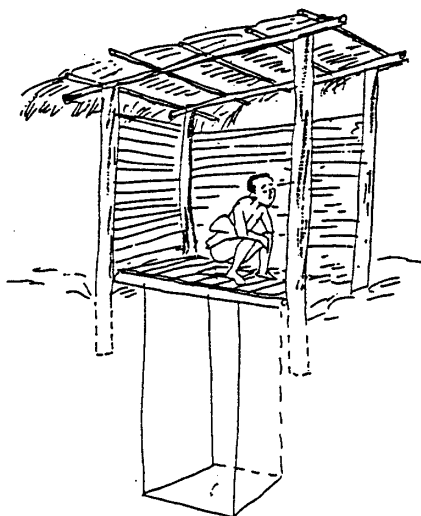
- \* Burn all garbage. You should bury garbage that will not burn. Dig a hole to bury garbage in. After you put garbage in the hole, put a thin layer of dirt over the garbage so flies do not eat the garbage. Dig the garbage hole far away from houses and the places where people get water to drink. Put a fence around the hole or put a cover on the hole to prevent children from falling in.



[What are obstacles to building or using latrines.]

\* Build latrines to keep feces away from children, animals and flies. Teach people how to use latrines.

Here is a drawing of a simple latrine that is easy to build. Throw a little lime, dirt or ashes in the hole after you defecate to reduce the bad smell and to keep flies away. Build latrines at least 20 meters away from homes and water sources. A latrine is only good if you use it. For more details, see Unit 22 "Family and Village Projects", page 6-7.



If you are someplace without a latrine, then defecate far away from where people bathe or get water to drink. Cover your feces with some dirt. Teach children to use the latrine.

### WHEN YOU USE THE LATRINE YOU HELP PREVENT SICKNESSES.

#### HOW TO MAKE WATER AND FOOD CLEAN:

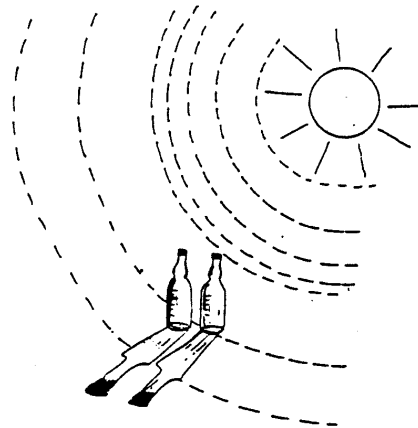
[Can hot drinks replace any unboiled water? What are the obstacles to boiling water? Is there sufficient fuel?]

\* It is best if you boil all water before you drink the water. If you boil water then the germs are killed. This is especially important for small children and at times when there is a lot of diarrhea, typhoid fever, hepatitis or cholera in the village. Water from holes or rivers, even when it looks clean, might spread sickness if you do not boil the water before you drink the water.



It is best to boil water for 10-15 minutes. [If you do not have enough fuel to boil water that long, then at least boil the water for 1 minute. This is better than not boiling the water at all. If you cover the container, the water will boil faster.]

If you cannot boil the water then put the water in glass bottles and set the bottles in the hot sun for a day. The sun will kill some of the germs.



You can also filter the water with a sand and charcoal filter. See Unit 22 "Village and Family Projects" for instructions.



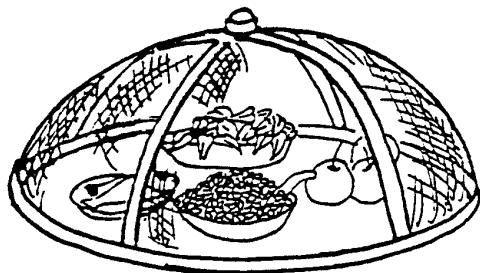
[How is drinking water stored? How can germs get in?]

- \* Clean water containers often. Do not drink from water storage containers, instead pour water from the container into cups or use a dipper to pour water into cups. Do not drink from the dipper.



[What do the people have to use to cover or store food? Are bugs considered dirty?]

- \* Do not let flies or other bugs land or crawl on food. Flies and bugs carry germs and spread sickness. Do not leave pieces of food lying in or around the house because food attracts flies. Flies put germs on the food and the germs can grow on the food. Protect food from bugs. Keep food covered or in boxes or cabinets with wire screens. You can also put cups of water under table and cabinet legs to keep bugs off.

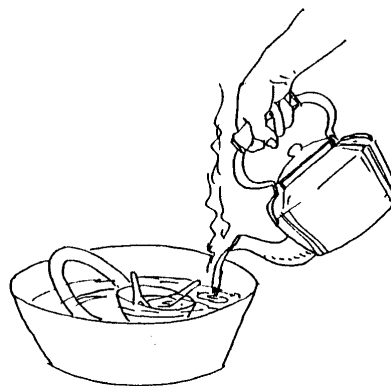


- \* Wash all fruits and vegetables before you eat them. You should peel vegetables that grow on the ground to get rid of dirt and germs.
- \* Before you eat food that was on the ground, wash the food well. Do not let children pick up and eat food that is on the ground. You can hold dirty food in the fire or wash it, then eat the food. You should recook leftover meat before you eat it.

[Do people eat raw meat? In what foods?]

- \* Cook all meat well before you eat it. Be careful that roasted meat, especially pork, does not have red or raw parts inside. **Raw meat carries dangerous sicknesses.**

- \* [People with tuberculosis, flu, colds, or other infectious sicknesses should eat separately from other people. Sick people should have their food put in a separate dish from other people.] Put plates and utensils that sick people use in boiling water to kill the germs before another person uses them.



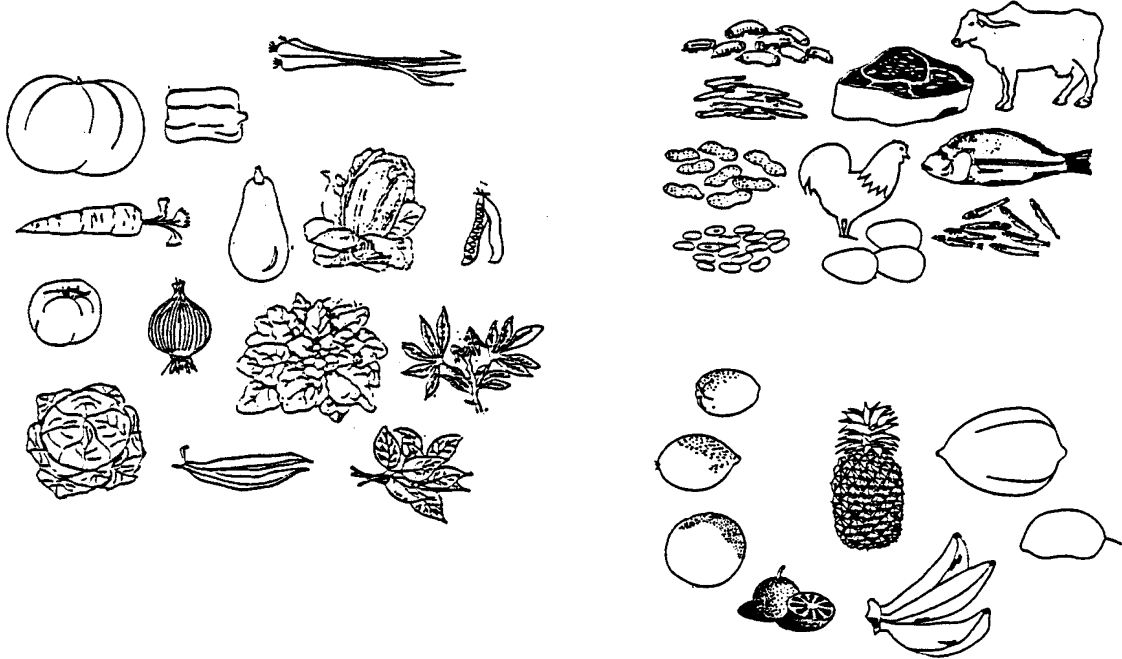
- \* Do not use the spoon that you eat with to take food out of the group food dishes. Each food dish should have a spoon people can use to put the food on their plates.

### HOW TO PROTECT YOUR CHILDREN'S HEALTH:

- \* Breastfeed your baby for the first 5 or 6 months of life. Breastmilk is the only food the baby needs to eat the first 5 or 6 months of life. Breastmilk will make the baby strong and help prevent sickness.
- \* A sick child should sleep apart from children who are not sick. Children with sores, itchy skin, or lice should always sleep separately from children who are not sick. Children with infectious sicknesses such as whooping cough, measles, or a cold should sleep in a room away from children who are not sick. Do not allow children who are sick to play with babies or small children.
- \* Protect children from tuberculosis. People with a persistent cough or other signs of tuberculosis should turn their heads away from people whenever they cough. They should **never** sleep in the same room with children. The person with tuberculosis should go to a health worker so that the health worker can treat him. All children should receive the tuberculosis vaccine, (BCG vaccine).
- \* Bathe children, change their clothes, and cut their fingernails often. Germs and worm eggs often live under long fingernails.
- \* Treat people who have infectious sicknesses as soon as possible, so that the sickness does not spread to other people.



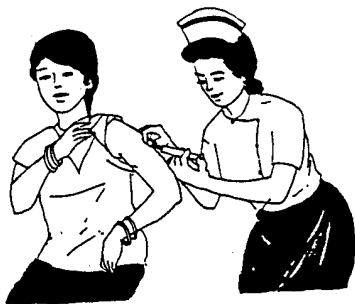
\* Be sure that children eat a lot of nutritious food. Nutritious food helps protect the body against sickness. A child who eats nutritious food can usually fight a sickness that can kill a child who does not eat nutritious food.



### VACCINATIONS: simple, sure protection

A vaccine is a medicine that helps your body fight sickness for a long time. Vaccines prevent many dangerous sicknesses. If health workers do not vaccinate people in your village, then take your children to the nearest health center to receive the vaccines.

**IT IS BETTER TO TAKE A CHILD FOR A VACCINE WHEN HE IS HEALTHY, THAN TO TAKE A CHILD FOR TREATMENT WHEN HE IS SICK OR DYING.**



The most important vaccines for children are:

**D.P.T.** for diphtheria, pertussis (whooping cough) and tetanus. For full protection, the child needs 4 injections:

- the first injection at 2 months old
- the second injection at 4 months old
- the third injection at 6 months old
- the fourth injection at 18 months old.



**POLIO.** The child needs to get polio vaccine drops. The child usually drinks the drops. Health workers usually give the polio vaccine together with the D.P.T. vaccine.

**B.C.G.** for tuberculosis. The health worker gives one injection under the skin of the right shoulder. You can vaccinate children at birth or any time afterwards. Early vaccination is especially important if any member of the family has tuberculosis. The vaccine makes a sore and leaves a small scar.

**Measles.** One injection only. The health worker gives the measles vaccine to the child when he is 9 to 12 months old. Sometimes health workers give the measles vaccine together with the mumps vaccine and the rubella vaccine. The three vaccines together are called the measles, mumps, rubella (MMR) vaccine.

**Tetanus.** For adults and children over 12 years old, the most important vaccine is the tetanus vaccine. If the person did not receive the tetanus vaccine when he was a child, the health worker should give the person one tetanus vaccine injection each month for 3 months, another injection after one year, and then one injection every 10 years. Everyone should receive the tetanus vaccine, especially pregnant women. The tetanus vaccine will protect a pregnant woman and the baby.

Many vaccines give the child a fever for a day. This is normal.

The following schedule can help parents be sure that their children receive the proper vaccines at the proper time.

	<u>AGE (months)</u>					
	Birth	2	4	6	12	18
BCG (tuberculosis) vaccine	x					
DPT vaccine		x	x	x		x
Polio vaccine		x	x	x		x
Measles or MMR vaccine					x	

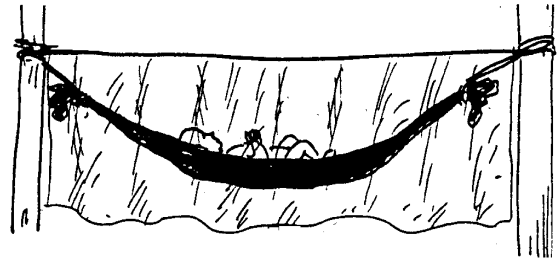
See Unit 18 "Health and Sickness of Children" for a vaccination chart to use with families.

**VACCINATE CHILDREN AT THE PROPER AGES.  
BE SURE CHILDREN GET THE COMPLETE SERIES OF EACH VACCINE.**

## HOW TO PREVENT SICKNESS FROM MOSQUITOS

Mosquitoes eat the blood of animals and people. If there are germs in the blood, the mosquitoes can suck up the germs and spread some kinds of germs to people who the mosquitoes bite. Mosquitoes pass malaria, dengue fever, [filariasis] and encephalitis. To reduce the number of mosquitoes in the area and prevent mosquito bites do the following:

- \* Sleep under a mosquito net. This is especially important for pregnant women and small children.



- \* Cover your arms, legs and feet in the evenings. Mosquitoes that carry malaria only bite from when the sun goes down until the sun comes up.
- \* Cut grass and weeds near your house. Mosquitoes like to live in tall grass.
- \* Mosquitoes lay eggs in water, even a little bit of water. If you get rid of water near your home and village, there will be fewer mosquitoes and less sickness. Fill in or drain holes with water in them. Cover water containers and bury trash. Put sand in the tops of bamboo fence posts.



## HABITS THAT AFFECT HEALTH.

Some of the habits that people have damage their own health and can harm other people. People can stop many of these habits. The first thing you must do to break a habit is to understand how the habit hurts you and other people. In Unit 21 "Addiction" you will read about the problems of alcohol and drug abuse. In this unit you will read about smoking.

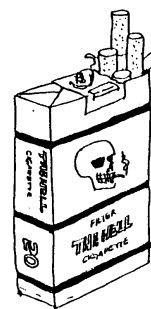


### **Smoking**

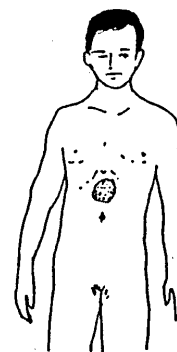
[What are reasons for smoking? What do people smoke?]

There are many reasons why smoking is dangerous to your health and your family's health:

- \* Smoking increases the risk of cancer of the lungs and lips. The more you smoke, the greater the chance you will die from cancer.
- \* Smoking can cause serious sickness of the lungs and can cause a person to suffer from bronchitis for many years. People who have asthma can die if they smoke.



- \* Smoking can cause stomach ulcers or make ulcers worse.
- \* Smoking increases the chance that your children will get pneumonia and other lung sickness because they breathe the smoke in the air.
- \* Smoking increases your chance of suffering or dying from heart problems or stroke.



- \* If a pregnant mother smokes, her baby will be smaller and grow more slowly.
- \* Parents, teachers, health workers, and other people who smoke set an unhealthy example for children and young people. If you do not want children to smoke, you should not smoke.
- \* **When people smoke, they spend money.** The money people spend to smoke looks small, but the money adds up to a lot. In some countries, many of the poorest people spend more money on tobacco than on health care for their families. If people would spend money on nutritious food instead of tobacco, then children and families could have better health.



**ANYONE INTERESTED IN THE HEALTH OF OTHER PEOPLE SHOULD NOT SMOKE, AND SHOULD ENCOURAGE OTHER PEOPLE NOT TO SMOKE.**

### **HOW TO PREVENT BURNS, ACCIDENTS, AND POISONING**

[Include other common problems here. What are the most common problems and their causes?]

Teach people to prevent accidents, burns and poisoning. Teach older children to protect younger children.

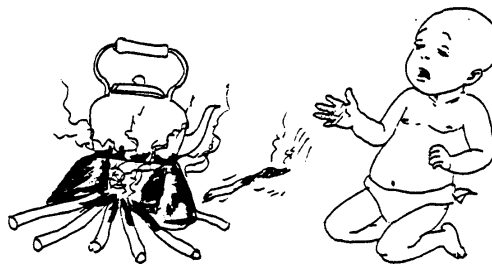
#### **HOW TO PREVENT BURNS:**

[Is fire necessary for warmth when sleeping? How can it be made safe?]

- \* Keep hot tea pots, hot pans and hot drinks on high shelves where children cannot reach them.
- \* Keep matches, chemicals and kerosene on high shelves.
- \* When you use an oil lamp or candles, keep children away or put the oil lamp or candles on high shelves where children cannot reach them. Keep oil lamps away from mosquito nets. Mosquito nets burn easily.
- \* If you use a car battery in the house, keep it where children cannot touch it or get shocked or burned.
- \* Be sure the cooking fire is in a place that children cannot get into. Or put a small, strong fence around the cooking area to keep children out.



DO THIS

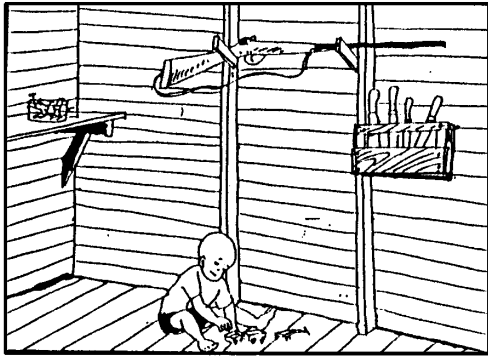


DO NOT DO THIS

#### **HOW TO PREVENT ACCIDENTS:**

- \* Remove nails that stick out.
- \* Clean the area around the house, school and village. Be sure no glass, nails, or sharp objects are left on the ground. Bury garbage.
- \* Cut long grass that can hide sharp objects and snakes.
- \* Keep knives, sharp tools, glass and guns where children cannot get to them.

- \* Be sure electrical wiring is not bare. Water makes electricity shock a person easier. Never touch anything electric if you are wet.
- \* Put fences around water holes and steep areas where children might fall.
- \* Teach children to stay off the road when cars come.
- \* Put a rail around the areas of the house where children might fall off.



DO THIS



DO NOT DO THIS

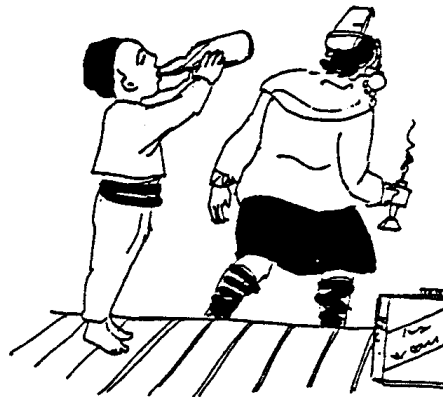
#### HOW TO PREVENT POISONING:

[What common poisons are kept in or below the house?]

- \* Keep all medicines, chemicals and kerosene on a high shelf or in a drawer that a child cannot reach.
- \* Write the name of medicines and chemicals on the container. If people do not know what is in the container, they might taste it and be poisoned.
- \* Do not keep kerosene or gasoline in containers that people use for water. Never put water in a container that had insecticide, poison or petrol in it.
- \* Do not let children eat strange berries or mushrooms.



DO THIS



DO NOT DO THIS

## UNIT 3

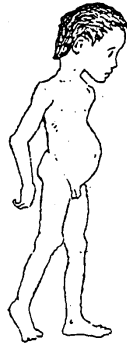
### NUTRITION

People need to eat nutritious food to grow well, stay healthy and be strong. People who do not eat enough nutritious food cannot build a strong body or fight sickness.

[Do people think certain foods are more or less nutritious?]

#### MALNUTRITION (poor nutrition)

The 2 children below have malnutrition. Malnutrition causes the problems listed below. A child with malnutrition might actually look healthy or might have some of the signs listed below.



#### Serious Malnutrition:

- \* small for his age
- \* underweight
- \* swollen abdomen
- \* thin arms and legs
- \* loss of appetite
- \* weak and tired
- \* pale (anemia)
- \* wants to eat dirt
- \* sores in the corner of the mouth
- \* frequently sick
- \* cannot see well at night
- \* reddish hair



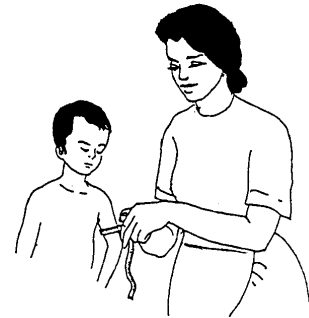
#### Very Serious Malnutrition:

- \* sad
- \* underweight
- \* dark spots, peeling skin or sores on body
- \* swollen feet
- \* thin hair or loses hair
- \* does not want to laugh or play
- \* sores inside mouth
- \* below normal intelligence
- \* dry eyes
- \* blindness

Malnutrition also makes many sicknesses worse or easier to get. Children who do not eat nutritious food get sick more often and stay sick longer than children who eat nutritious food. Malnourished children get diarrhea easily. Malnourished children die from sickness more often than children who eat nutritious food. Diarrhea, measles and tuberculosis are very dangerous sicknesses, especially if a child has malnutrition.

Many times you can see signs of malnutrition after a child is sick. For example, a child who has diarrhea for several days might get swollen hands and feet or sores on his legs. This means the child needs more nutritious food. Malnutrition is common in babies who stop breastfeeding and eat mostly rice.

One way to check for malnutrition is to measure a child's upper arm. After a child is 1 year old, his upper arm should measure more than 13 centimeters. If his upper arm is less than 13 centimeters, then he is malnourished. See Unit 11 "Malnutrition" for more details.



A healthy child will become heavier every month. If a child does not gain weight every month he might be sick, have poor nutrition or not be receiving the care and love that he needs. Children should be weighed every month. See Unit 18 "Health and Sickness of Children" for more details.

A lack of nutritious food causes some sicknesses such as pellagra, night blindness, goiter and anemia.

## **EATING NUTRITIOUS FOOD HELPS THE BODY FIGHT AND PREVENT SICKNESS**

[What is perceived as the function of food?]

Nutritious food gives the body energy to work and play. Nutritious food helps the body grow. Nutritious food makes the body strong. A strong body can fight sickness better than a weak body. It is important for people to eat nutritious food everyday to prevent sickness. If a person does get sick, he should eat nutritious food to help fight the sickness and get well soon.

Parents should be sure that all children, especially sick children, eat nutritious food. If a sick child does not want to eat, then encourage him to eat. Mash the food if necessary and give him small amounts of food often. If the sick child will not eat, give him some of his favorite foods. Be persuasive and patient. Trying to make a child eat is hard work but necessary because correct feeding is the best way to help a child get better. Sometimes a parent must make a child eat to save the child's life.

## **NUTRITIOUS FOOD**

Different foods help the body in different ways. There are 3 different food groups that help the body grow strong and fight sickness. The 3 food groups are energy foods, body building foods and protective foods. A person should try to eat some food from each food group every meal.

[Add other relevant foods according to what is available]

### 1. Energy Foods (carbohydrates and fats)

Energy foods give us strength to work and move and fight sickness. But you must eat body building food and protective food also to be strong.

Some energy foods are:

rice  
corn  
sugar  
honey  
sugar cane

Vegetables and fruit such as:

potatoes  
squash  
bananas

Fats and oils such as:

vegetable oil  
animal fat  
coconut



### 2. Body Building Foods (protein)

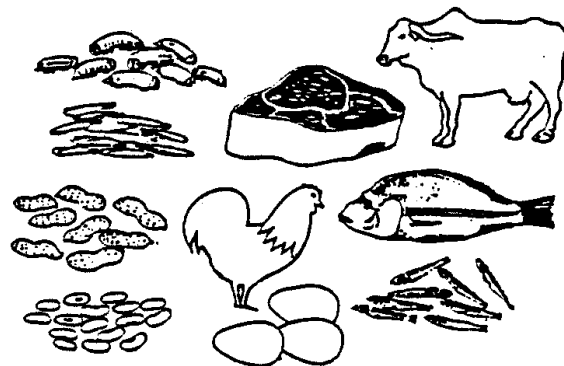
Body building foods help to make muscles, brains and other body parts. Body building foods make us grow and be strong. Some examples of body building foods are:

Food that comes from animals such as:

meat  
chicken  
eggs  
fish  
milk  
insects

Some vegetables such as:

soybeans  
nuts  
peanuts  
sesame



### 3. Protective Foods (contain vitamins)

Protective foods help the body to work properly and fight sickness. Protective foods make strong blood, skin, bones and teeth. All vegetables and fruits have some vitamins.

Some examples of protective foods are:

All green leafy vegetables

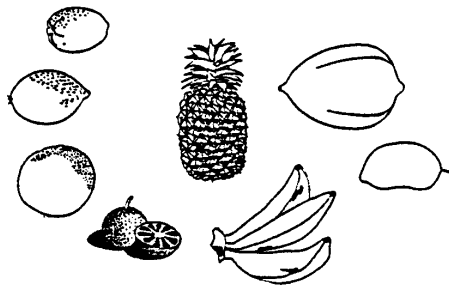
All yellow or orange vegetables such as:

- pumpkins
- squash
- tomatoes
- peppers



Fruits such as:

- papaya
- oranges
- mangos
- lemons
- bananas
- guavas



People should eat enough food. People must also eat food from each food group to be healthy. Many people eat a lot of energy food such as rice. [They add salt, fish paste or chili peppers to make the rice taste good.] But this is not enough. These people need to add body building foods and protective foods to the rice to be healthy. People who eat a lot of rice can have poor nutrition because they do not eat enough body building foods and protective foods.

People should try to eat many different kinds of food in each group. Eating different kinds of vegetables is better than always eating the same vegetable. Eating beans, nuts and meat is better than just eating meat.

Some people believe certain foods will hurt them or make them sick. Some people believe certain foods are not good when they are sick. [Some people believe in "hot" foods and "cold" foods. They do not eat "hot" foods for "cold" sickness and do not eat "cold" foods for "hot" sickness.] Some people believe certain foods are bad for pregnant women or women with new babies. Sometimes these beliefs can hurt a person's health and make them get sick easily because the people are not allowed to eat nutritious foods. Many times the people need to eat nutritious food to get well. All of the foods above are good for your health. You do not have to avoid any of them. If people believe that they must avoid some foods, make sure they eat other foods from each food group. For example, if people believe a new mother should not eat chicken, be sure she eats other body building foods such as nuts and fish. If people will not change their habits, try to be sure they eat other nutritious foods.

[Include other relevant food taboos/restrictions.]

During pregnancy a woman's body grows very rapidly and the baby's body also grows. It is very important that pregnant women and new mothers eat enough nutritious food, especially body building food. Women who only eat rice, salt and peppers will be weak, have thin blood (anemic) and might die when they have a baby. Pregnant women and new mothers who eat eggs, chicken, fish, meat, fruit and vegetables will be stronger and have healthier babies than women who do not eat these foods.

Women who breastfeed also need extra bodybuilding foods. The mother's breastmilk is made from the foods she eats. In order to make nutritious breastmilk, a mother must eat more food than normal from each food group.



A woman who ate nutritious food when she was pregnant and after she gave birth.



A woman who did not eat nutritious food when she was pregnant or after she gave birth.

**PREGNANT AND BREASTFEEDING MOTHERS SHOULD EAT ENOUGH FOOD FOR TWO PEOPLE.**

It is also important to drink water and other liquids to have good health. Sick people should always drink a lot of clean water. **NEVER WITHHOLD WATER FROM A SICK PERSON. PEOPLE WITH DIARRHEA AND FEVER ESPECIALLY NEED WATER.**

**FOODS THAT PREVENT AND CURE CERTAIN SICKNESSES**

A lack of some protective foods cause certain sicknesses.

A lack of protective foods that contain iodine causes goiter. A lack of iodine can also cause a baby to be born dead or retarded. To prevent goiter, people should eat dark green leafy vegetables and salt with iodine. Salt without iodine will not help.

A lack of protective foods that contain iron causes anemia. Pregnant women and children often have anemia because they grow very fast. Anemia makes a person weak, pale and have thin blood. To prevent anemia, people should eat meat, fish, chicken, eggs, liver, beans and dark green leafy vegetables.

A lack of protective foods that contain vitamins causes night blindness, pellagra, dry and cracked skin, peeling sores on the legs, sores in the corners of the mouth and sores in the mouth. To prevent these problems, people should eat yellow or dark green leafy vegetables, fruit, meat, fish, milk, nuts and eggs.

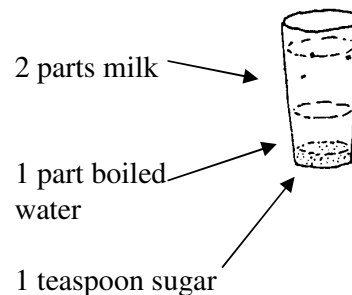
## CHILD NUTRITION

People should eat at least 3 times each day. Eating often is especially important for children. Children should also be allowed to eat some food between meals when they are hungry. Children should eat body building foods and protective foods at every meal. Try to get children to eat body building foods and protective foods before they eat their rice or mix the body building foods and protective foods with their rice. After they eat all their body building foods and protective foods, they can fill up on rice and energy foods.

### THE BEST FOOD FOR CHILDREN YOUNGER THAN 4 MONTHS:

The best food for babies is breastmilk. Breastmilk contains everything a baby needs for the first 4-6 months. Breastmilk protects babies from sickness. The baby should not eat or drink anything else. The baby is not ready to eat other foods until after 4-6 months. Giving other foods too early can cause diarrhea, food allergies and poor nutrition. Mothers who breastfeed should drink a lot of liquids and eat a lot of nutritious foods so that they will produce enough breastmilk. If a mother stops producing breastmilk, then the baby should suck the breast more to make more milk come out. Give the baby many opportunities to breastfeed. The mother should continue to breastfeed even if she has a breast infection.

If the mother still cannot produce breastmilk, she should go to a health worker. If a health worker is not available, then give the baby cow's milk, goat's milk or powdered milk. Do not give condensed milk. Add some boiled water and a little sugar to the milk. Boil the milk and water you give to a baby. Feed the baby with a cup and spoon instead of a bottle. Bottles and bottle nipples are hard to clean and can cause sickness.



**BREAST MILK IS THE BEST FOOD FOR BABIES. DO NOT GIVE THE CHILD OTHER MILK UNLESS THE CHILD ABSOLUTELY CANNOT BREASTFEED. THEN, ONLY GIVE THE BABY BOILED MILK AND BOILED WATER. FEED THE BABY WITH A BOILED CUP AND SPOON. DO NOT USE A BABY BOTTLE.**



### THE BEST FOOD FOR CHILDREN 4 MONTHS TO 1 YEAR:

A baby should drink breastmilk until he is 2 years old if possible. When the baby is 4-6 months old he needs other foods in addition to breastmilk. Feed the child food after he breastfeeds. Cook the food well and mash the food. You should add body building foods and protective foods to the child's rice each meal. Add about 1/2 teaspoon cooking oil to each mixture of food. Be sure children older than 6 months eat mashed fruit. They should also eat cooked and mashed vegetables. Children younger than 1 year old should eat at least 5 times each day because their stomach is small and they cannot eat enough food at one time.

**FEED CHILDREN BETWEEN 4 MONTHS AND 1 YEAR BREASTMILK,  
NUTRITIOUS FOOD AND BOIL THEIR WATER.**

### THE BEST FOOD FOR CHILDREN 1 YEAR AND OLDER:

A child who is 1 year or older can eat the same food as an adult eats. He should eat 5 or 6 times each day. Be sure he has milk to drink if possible. Be sure he eats a lot of body building foods and protective foods. If the child is malnourished, give him nutritious food often. Do not give small children a lot of sweets. Sweets can rot the teeth and make the child not hungry for nutritious foods.

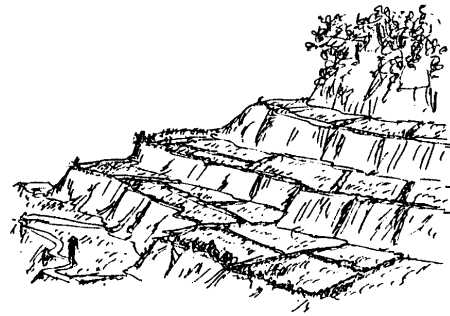
### WAYS TO GET MORE NUTRITIOUS FOOD

Many times people want to eat nutritious food, but they do not grow the nutritious food or they do not have enough money to buy the nutritious food. Sometimes people grow crops they cannot eat such as tobacco, opium and coffee. Then they sell the crops and do not use the money to buy nutritious food. Sometimes people do not have enough land to grow the food their family needs. It is best to plan ahead and use birth control and only have the number of children you can feed well. Malnourished children do not work well and many of them die.

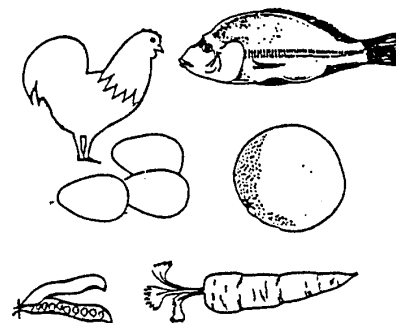
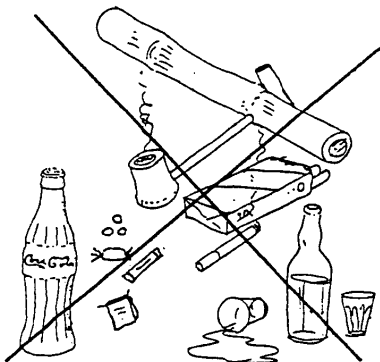
You can grow more food if you terrace mountain land and rotate crops. You can have more nutritious food for your family if you grow a family garden, breed fish, improve grain storage or do not sell all of the food that you grow. See Unit 22 "Family and Village Projects" for more details.



Sometimes people have nutritious foods, but they do not eat the nutritious foods. If you grow fruits and vegetables on your land, do not sell all of them. Save some for your family to eat. A healthy family is better than a little extra money. If you do not like the taste of some nutritious foods, then mix them with other foods you do like and add your favorite spices to make them taste good. After you harvest food, do not eat all the food quickly. Instead, preserve some of the food. Dry some vegetables to eat when vegetables are scarce. Dry or salt meat to eat later.



You should spend your money wisely. You might need to change the way you live and spend your money if you want to have a healthy family. Buy nutritious food, a chicken to lay eggs or medicine for sick people instead of alcohol, opium or tobacco. People who smoke opium harm their bodies, waste money and cannot work to support themselves and their families. Families who buy candy and soft drinks for their children should buy nutritious food instead. Alcohol, opium, cigarettes, and a lot of sweets are bad for your health.



Don't Buy  
 alcohol  
 cigarettes  
 opium  
 candy  
 soft drinks

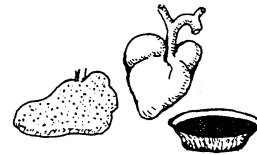
Do Buy  
 eggs  
 vegetables  
 chickens to lay eggs  
 other nutritious foods  
 milk

If you only have a little money, do not buy expensive foods. It is better to grow or buy food you can afford than to buy a little expensive food. If nuts and soybeans are cheaper than meat, buy mostly nuts and soybeans and only a little meat.

Here are some ways to get a lot of nutritious food at a low cost:

- \* Breastfeed babies. Breastmilk is free and the most nutritious food for babies.
- \* Chicken and eggs are very nutritious foods and not expensive. Calcium makes bones strong. Egg shells contain a lot of calcium. You can grind up boiled egg shells and mix them with food for pregnant women to make the baby's bones strong.

- \* Cooked animal liver, heart and blood are more nutritious than regular meat. Fish is also very nutritious. If fish is cheaper than meat, buy fish instead of meat.



- \* Soybeans are very nutritious. Soybeans sprouts are even more nutritious. Boiled and mashed soybeans are good baby food. Soybeans are usually less expensive than meat and give the same benefit. Soybean plants also make the soil strong so other plants can grow better later.



- \* Dark green leafy vegetables are very nutritious. You can dry them to save for times when vegetables are scarce. You can mix them with rice and fish for baby food. Light green leafy vegetables such as lettuce and cabbage are not as nutritious.
- \* Rice and grain are more nutritious when some of the inner skin is not removed. White rice without any skin is less nutritious.
- \* Cook vegetables, rice and other foods in a small amount of water. Much of the good food goes into the water. Be sure to use the water for soup or to drink. It is better to cook vegetables by steaming them, not by boiling the vegetables.
- \* Cook food in an iron pot or add an iron nail to the pot. Some of the iron will go into the food in the pot and help prevent anemia.

## VITAMINS

Vitamins are parts of food that help protect the body from sickness and make the body work properly. Everyone needs enough vitamins. People who eat a lot of protective and body building foods get all the vitamins they need. It is always better to get vitamins from nutritious food than from vitamin pills, vitamin drinks or vitamin injections.

If people have poor nutrition or are sick, you might want to give them vitamin pills together with encouraging them to eat nutritious foods. Pregnant women and children especially need vitamins. If people take vitamins, they should take vitamin pills, not vitamin injections.

Be sure the vitamin pills have:

Niacin

Vitamin B1

Vitamin B2

Vitamin B6

Vitamin A

Vitamin C

Vitamin D

Iron (ferrous sulfate) - especially pregnant women

Folic Acid - especially pregnant women

Calcium - especially pregnant women

## UNIT 4

### HOW TO TAKE CARE OF SICK PEOPLE

Sickness makes the body weak. A person needs special care to fight sickness and get well quickly.

**THE CARE YOU GIVE A SICK PERSON IS USUALLY THE MOST IMPORTANT PART OF HIS TREATMENT.**

Medicines are often **not** necessary. But good care is **always** necessary. Teach the people in your village how to care for sick people. Especially teach mothers and other people who take care of sick children.

#### THE BASICS OF GOOD CARE ARE:

[Check beliefs about fresh air and temperature of a room?]

##### 1. Make the sick person comfortable.

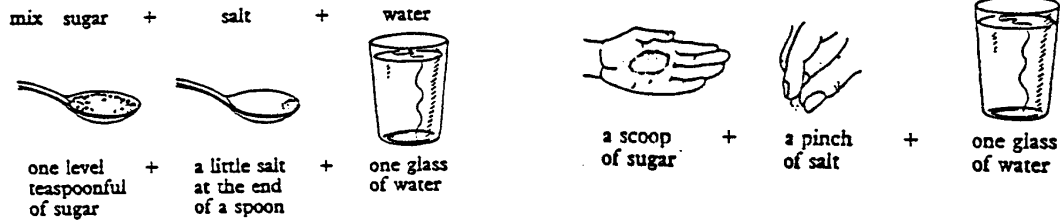
A person who is sick should rest in a quiet, comfortable place with plenty of fresh air and sunlight. Make sure that the sick person is comfortable, and not hot or cold. If the air is cold or the person is cold, then cover him with a sheet or a blanket. But if the weather is hot or the person has a fever, do not cover him. If a person has a high fever, wipe him with a wet cloth to cool him. The sick person should sleep under a mosquito net if possible.



##### 2. Give the sick person a lot of clean or boiled liquids to drink.

The sick person should drink a lot of liquids such as water, tea, juices, soups and rehydration drink. This is very important, especially when a person has diarrhea or a fever. You must replace the water that comes out of a person's body. A sick person who does not drink liquids will probably not get better. Some people believe that a baby with diarrhea should not drink liquids but this is wrong. Diarrhea is mostly water. Diarrhea takes water out of the body. You must replace the water that came out in the diarrhea or the baby will probably die.

Sick people lose water and salt when they have diarrhea or sweat. Taste your sweat. Sweat is salty. You can make a rehydration drink to replace the water and salt lost in diarrhea and sweat. The rehydration drink also has sugar to give the sick person strength. Rehydration drink is very good for people who are sick, especially if they have diarrhea. To make rehydration drink add 1 teaspoon of sugar and a pinch of salt (1/8 teaspoon) to 1 cup of water or tea.



To Prevent Dehydration:

A child under 2 years old should drink 1/4 cup rehydration drink each time he has diarrhea.



A child 2-5 years old should drink 1/2 cup rehydration drink each time he has diarrhea.



A child 6-12 years old should drink 1 cup rehydration drink each time he has diarrhea.



A person over 12 years old should drink 1-2 cups rehydration drink each time he has diarrhea.

If the person is dehydrated, see Unit 12 "Dehydration, Diarrhea and Vomiting".

**3. Give the sick person nutritious food to eat.**

You should encourage a sick person to eat. If the sick person wants to eat then give him nutritious food. If the sick person does not want to eat, try to give him small amounts of soft food every 2-3 hours. A sick person should drink plenty of liquids and eat nutritious foods such as milk, chicken, eggs, meat, fish, beans, potatoes, green leafy vegetables, and fruit. Mix these foods with the person's rice. Add a little vegetable oil and sugar to give the person energy. See Unit 3, "Nutrition" for more details.



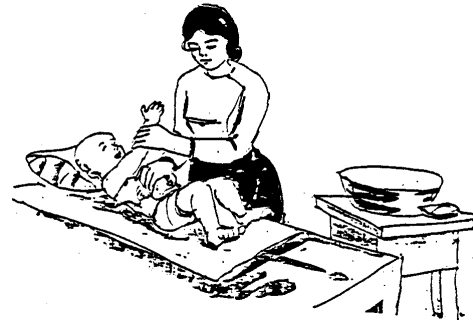
If the sick person is very young or very weak, give him these same foods, but mash them or make them into soups or juices.

People with certain health problems should not eat certain foods because the foods make the problem worse:

- \* Stomach ulcers - do not eat spicy or fatty foods that cause pain. Do not eat sweets or drink coffee.
- \* Diabetes - do not eat sugar or sweets.
- \* Heart problems - do not eat fatty or salty foods.
- \* Gallbladder problems - do not eat fatty foods.
- \* You should not give any food to a person who has an abdominal emergency. Take him to the hospital immediately.

#### 4. Clean the sick person.

It is important to clean the sick person. Someone should bathe the sick person every day. If the person is too sick to leave his bed, then wash him with a cloth and warm water. Someone must clean his clothes, sheets and covers when they are dirty. Wipe away pieces of food from the bed after the person eats because food attracts bugs. Someone should help the sick person defecate and urinate. Someone should help hold up or turn the sick person when he vomits.



#### 5. Give the correct medicine.

Someone should help the sick person take his medicine at the correct times and the correct amount. This is especially important for sick children. Be sure the health worker or pharmacy worker writes the correct dose and times to take the medicine on the medicine container.



### SPECIAL CARE FOR A PERSON WHO IS VERY SICK

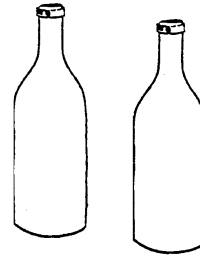
The care you give a very sick person should include the care mentioned above plus the special care that follows.

#### 1. Help the person drink a lot of liquids.

It is very important for a very sick person to drink enough liquid. If the sick person can only drink a little liquid, give him small amounts often. If the sick person



can barely swallow or is finding it difficult, give him small drinks every 5 to 10 minutes. Measure the amount of liquid the person drinks each day. Count the number of times the person urinates each day. An adult needs to drink **2 liters or more** of liquid every day. An adult should urinate 3 or 4 times each day. If the sick person does not drink or urinate enough, or if the sick person becomes dehydrated, then encourage him to drink more.



The sick person can drink boiled water, tea, juice or rehydration drink. If he does not drink enough liquid and becomes dehydrated, then a health worker can give him intravenous solution. But, if the person has many small drinks, then the sick person will usually not need intravenous solution.

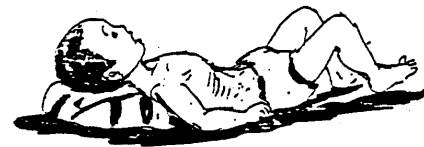
## 2. Help the sick person eat nutritious food.

If the person is too sick to eat solid foods, then give him soup, milk, and other nutritious liquids. Rice mixed with eggs, beans, and small pieces of meat, fish or chicken is good. If the person can only eat a little each time, then he should eat many small meals each day. Be sure the food is soft, cooked well and clean.

## 3. Clean the sick person and change his position in bed.

It is very important for the health worker to clean a seriously sick person. You should bathe him every day with warm water. Bathing a sick person with warm water helps the sick person get better. Change his clothes every day and when his clothes are dirty. If a sick person is too weak to move, help him change position in bed. Change a sick person's position in bed 5-10 times each day. This helps to prevent bed sores. If possible, lay the sick person on a soft mattress.

Liquid collects in the lungs of a sick person who does not move. The liquid can cause pneumonia. When you change a sick person's position you help prevent pneumonia. Pneumonia is a constant danger for anyone who is very weak or sick and must stay in bed for a long time. If the person has a fever, begins to cough, and breathes with fast, shallow breaths, then he probably has pneumonia.



Mothers and family members should frequently hold a child who is sick for a long time. This helps the child to get better.





#### 4. Watch for changes.

You should watch for any change in the sick person's condition that will tell you if he is getting better or worse. Write down the following signs 4 times each day:

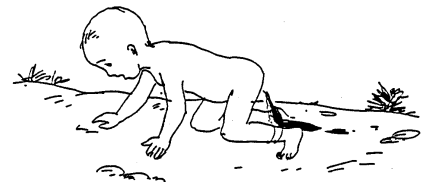
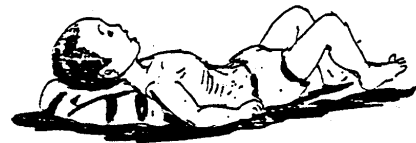
- \* Temperature - a rise in temperature usually means the patient is getting sicker.
- \* Pulse - a fast or irregular pulse usually means the patient is getting sicker.
- \* Breathing rate and breathing quality - fast breathing or noisy breathing usually mean the person is getting sicker.

Also write down the **amount of liquids** the person drinks and how many times a day he **urinates** and **defecates**. Give this information to the health worker or doctor if possible. It is very important to look for signs that show the sickness is dangerous. Below is a list of signs of dangerous sicknesses. If the person shows any of the dangerous signs of sickness, TAKE THE SICK PERSON TO A HEALTH WORKER OR HOSPITAL IMMEDIATELY.

#### SIGNS OF DANGEROUS SICKNESS

**A PERSON WHO HAS ONE OR MORE OF THE FOLLOWING SIGNS IS PROBABLY TOO SICK TO TREAT AT HOME WITHOUT EXPERT MEDICAL HELP. DO NOT TAKE THE PERSON TO A TRADITIONAL HEALER OR PHARMACIST. DO NOT WAIT. HIS LIFE MIGHT BE IN DANGER. GET MEDICAL HELP AS SOON AS POSSIBLE.**

- \* The person lost large amounts of blood from the body.
- \* The person coughs up blood. (severe TB)
- \* The person's lips and fingernails are blue. This means the person has a bad heart or cannot breath properly.
- \* It is difficult for the person to breath. Especially if it is difficult for the person to breath when he is resting. (pneumonia, asthma, heart failure)
- \* You cannot wake the person up.
- \* The person is so weak that he faints when he stands up.
- \* The person has not urinated for one or more days. (dehydration, kidney or bladder blockage)
- \* The person has not drunk any liquids for one or more days.
- \* The person vomits very often or has severe diarrhea longer than one day. This can be dangerous for babies after 8 or more hours.



- \* The person has black sticky feces. (blood in the feces).  
The person vomits blood or feces.
- \* The person has strong, continuous stomach pains and vomits but does not have diarrhea and cannot defecate. (abdominal emergency)
- \* The person has a strong, continuous pain that lasts more than three days.
- \* The person has a long term lump on the body that grows.



- \* The person has a stiff neck and an arched back (meningitis). The person has a stiff jaw (tetanus).



- \* The person has more than one convulsion when he has a fever or serious sickness.
- \* The person has a high fever (above 39 C, 102 F) that will not go down or that lasts more than 4 or 5 days.

- \* Problems with pregnancy and childbirth:
  - the woman bleeds from the vagina during pregnancy.
  - the woman has a swollen face and hands and trouble seeing in months 7, 8 or 9 of pregnancy.
  - the child is not born within 24 hours after the bag of water breaks or 24 hours after labor begins.
  - the woman bleeds a lot when the baby is born.



- \* The person loses weight for a long time. (TB, AIDS)
- \* There is blood in a person's urine.
- \* The person has sores that grow and do not go away when you treat them.

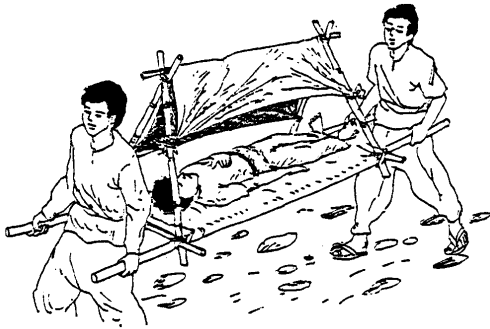
## WHEN AND HOW TO LOOK FOR MEDICAL HELP

Many times a sick person's family takes the sick person to a traditional healer or pharmacist before a health worker. This can take a lot of time and the person might become sicker. If the person is very sick, he might die if he does not get care from a health worker soon. Take sick people to a health worker when they first get sick. Do not wait until the sick person is very sick.

Look for medical help when you first see a sign of a dangerous sickness. Do not wait until the person is too sick to take to a health center or hospital. If a sick or injured person might become worse when you move him to a health center, try to bring a health worker to the patient. But, in an emergency when the person needs

special help or an operation such as an abdominal emergency, do not wait for the health worker. Take the person to the health center or hospital immediately.

When you carry a person on a stretcher, make sure he is comfortable and cannot fall off. If he has any broken bones, splint them before you move him. If the sun is very strong, put a sheet over the stretcher to give shade.



### WHAT TO TELL THE HEALTH WORKER

It is always best for a health worker to check the sick person before he gives advice or medicine. If you cannot take the sick person to a health worker and the health worker cannot come to see the sick person, then send a responsible person who knows the details of the sickness to see the health worker. This person can get advice and medicine for the sick person from the health worker.

Before you send for medical help, examine the sick person carefully and completely. Then write down the details of his sickness and his general condition. Use a "patient report" form like the one at the end of Unit 8 to write down the details of the sickness. Fill in as much of the report as possible.

**WHEN YOU SEND SOMEONE FOR MEDICAL HELP ALWAYS SEND A COMPLETED PATIENT REPORT WITH THE SICK PERSON.**

## UNIT 5

### FIRST AID

[What are beliefs about helping a seriously injured person? Are people afraid of the spirits if the person were to die?]

This unit explains how to help people who suddenly become sick or who have an accident. It is important for you to know the procedures in this unit because many of the sicknesses and accidents below are emergencies. You must be able to help fast in an emergency. Teach the emergency procedures to people in the community.

### SHOCK

#### **Cause of shock:**

Severe pain, a large burn, loss of blood, severe sickness, dehydration and severe allergic reactions can cause shock. These health problems cause the blood pressure to become very low so that not enough blood gets to parts of the body. Shock can kill a person.

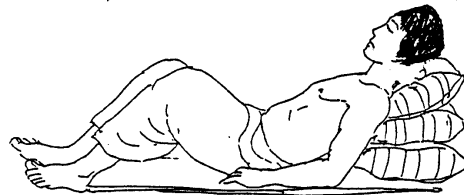
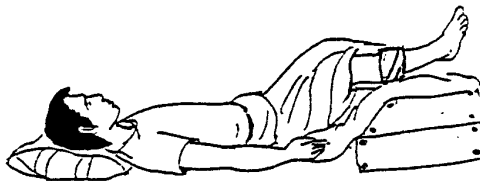
#### **Signs of shock:**

- \* Weak, fast pulse over 100 beats in 1 minute.
- \* Pale, cold, wet skin.
- \* Confusion, weakness, loss of consciousness.

#### **How to treat and prevent shock:**

When you first notice a sign of shock or if the person has one of the causes of shock above, then do the following:

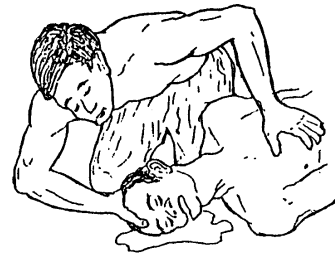
- \* The person should lay with his feet higher than his head to help enough blood get to the brain. But, if the person has a head wound, he should lean back and not lay down.



- \* If the person feels cold, cover him with a blanket.
- \* If the person is awake, give him warm water.
- \* If the person has pain, give paracetamol:  
dose: adult, 2 tablets of 500 mg, 4 times each day.
- \* Keep him calm.
- \* Loosen his clothing.

If the person is unconscious:

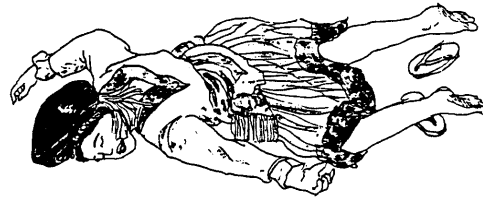
- \* Lay the person on his side, with his head lower than his feet. Turn his head to the side and bend his head back to prevent choking on vomit or saliva. If he chokes, pull his tongue forward with your fingers.
- \* If he vomits, wipe his mouth out.
- \* Do not give him food or drink until he wakes up.
- \* Get medical help fast. Get a health worker who can give intravenous solution.



## LOSS OF CONSCIOUSNESS

### Causes of loss of consciousness:

Drinking too much alcohol, a head injury, shock, poisoning, fainting, stroke and heart problems can cause a person to lose consciousness.



### How to treat loss of consciousness:

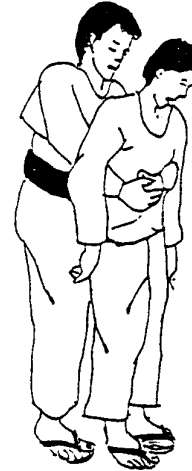
- \* Check breathing. If the person does not breath well, then bend his head back and pull his tongue forward. If something is stuck in his throat, then gently pull it out. If he is not breathing, do mouth to mouth breathing immediately.
- \* Check for bleeding. If he is bleeding a lot, stop the bleeding.
- \* Check the pulse and skin for shock. If he is in shock, treat him for shock.
- \* If the person has a serious injury, if his neck or back are hurt or if bones are broken, then do not move him until he is awake. If you must move him, be very careful and do not bend the back or neck.
- \* If the person is not in shock and does not have a back injury, then lay him with his head higher than his feet.
- \* Never give food or drink to an unconscious person.

## CHOKING

A person who is choking might hold his neck or his skin might become blue because he cannot breathe. When food or an object is stuck in a person's throat and he cannot breathe, do the following:



1. Stand behind him and wrap your arms around his waist.
2. Put the thumb of your fist on his abdomen, above the navel and below the ribs.
3. Pull up suddenly into his abdomen. This makes the air in the lungs push out the object in his throat.
4. Do this until the object comes out of the throat and the person can breathe.



If the person is much bigger than you or he is unconscious, then do the following:

1. Lay the person on his back.
2. Sit over his legs. Put the bottom of your hand between his navel and rib cage.
3. Push upward quickly.
4. Do this many times until the person can breath again.
5. If he does not start breathing, do mouth to mouth breathing (see page 42)
6. During mouth to mouth breathing, stop frequently and check if the person has started breathing. Check if you can see the object in the throat and carefully pull the object out of the throat.



If a baby is choking and cannot breathe, then do the following:

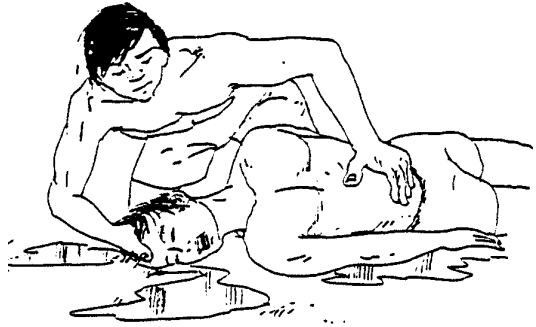
1. Hold the baby with his head lower than his feet.
2. Push with 2 fingers between the nipples. Push 4 times. Do not push hard.
3. Turn the baby over and tap with 2 fingers between the shoulder blades. Tap 4 times.
4. Continue to push between the nipples and tap between the shoulder blades until the baby can breathe.



## **DROWNING**

If a person is drowning, try to give him a long stick to grab or throw him something that will float. If he cannot get out of the water, then you should go in the water, grab his hair, and pull him out. But, do not go into water that you cannot touch the bottom unless you are a very good swimmer. The drowning person might make you drown also.

A person who cannot breathe can only live 4 minutes. You must help him fast. Start mouth to mouth breathing immediately. If there is water in his lungs and you cannot blow air into his lungs, then turn his head to the side and push on his abdomen between the navel and ribs. This should make the water come out. Continue mouth to mouth breathing.



## **MOUTH TO MOUTH BREATHING**

Many things can cause a person to stop breathing:

- \* Something stuck in the throat.
- \* The tongue or thick mucus can block the throat of an unconscious person.
- \* Drowning.
- \* Poisoning.
- \* Breathing insecticide.
- \* A head injury.
- \* A heart problem.

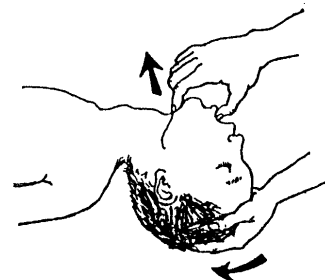
The person will die in 4 minutes if he cannot breathe. You can breathe for him. If a person stops breathing, start mouth to mouth breathing immediately.

If a person is not breathing, do the following:

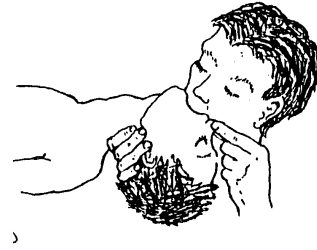
1. If something is stuck in the throat, try to remove it. (See Choking section) Pull the tongue forward. Do not put your finger straight into the mouth because you might push the object deeper into the throat. Instead, put your finger into the side of the mouth and move it across the mouth to remove the object.



2. Lay the person on his back. Pull his head back and pull his jaw up.



3. Pinch his nostrils closed. Put your hand under his neck and hold his head back. Cover his mouth with your mouth and blow into his mouth. His chest should rise when you blow. Take your mouth off his mouth, count 3 seconds and breath into his mouth again.



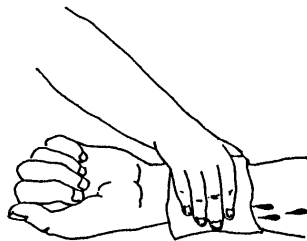
With babies, cover the mouth and nose with your mouth. Only breathe a little air into the baby's mouth. Wait 2 seconds between each breath.

Do mouth to mouth breathing until the person can breath again, until you are too tired to continue or until you are sure the person is dead.

## BLEEDING AND WOUNDS

### HOW TO STOP BLEEDING

1. Raise the wound above the chest. This makes less blood come out.
2. With a clean cloth or your hand, press hard on the wound until the bleeding stops. You might need to press for 15 minutes to 1 hour.



[Note culture specific methods to stop bleeding. What is put into wounds?]

3. If the bleeding will not stop and a lot of blood comes out, do the following:

- \* Press hard on the wound with a cloth.
- \* Raise the wound as high above the chest as possible.
- \* Tie a cloth around the arm or leg between the wound and the body and close to the wound. Tighten the knot until the bleeding slows or stops. If necessary, tie a stick above the knot and twist the cloth with the stick to make the bleeding slow down. Never use a string or wire that will cut into the person.





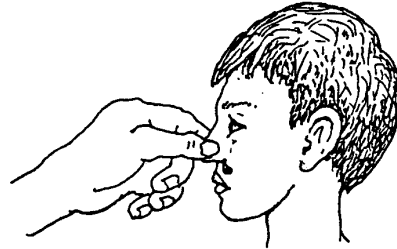
\* Loosen the tie for 1 minute each 1/2 hour to let the blood go into the leg or arm. If the bleeding stops, take the tie off. If severe bleeding continues, put the tie on again. If you do not loosen the tie each 1/2 hour, the leg will die and might need to be cut off later.

\* If bleeding is severe, then raise the feet to prevent shock.

## HOW TO STOP NOSE BLEEDING

\* The person should sit down.

\* Pinch the nose hard for 10 minutes or until the bleeding stops.



\* If bleeding does not stop, push clean cotton or cloth into the nose. Be sure to leave some of the cotton or cloth hanging out of the nose so you can pull it out later. Wet the cotton or cloth with petroleum jelly, cooking oil or hydrogen peroxide before you put it in the nose if possible.



\* Then pinch the nose for 10 minutes.

\* Take the cotton or cloth out of the nose a few hours after the bleeding stops.

\* If the person's nose bleeds often, put petroleum jelly inside the nostrils 2 times each day. The person should eat fruit. Vitamins in fruit help make the nose not bleed.

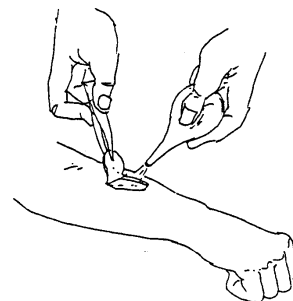
## HOW TO CLEAN WOUNDS

Cleaning a wound will help a wound heal and prevent infection.

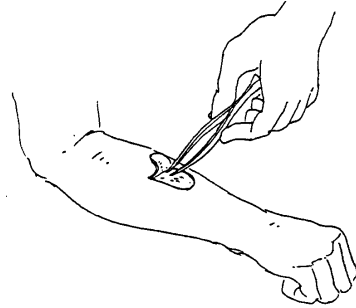
1. Wash your hands.



2. Wash the wound well with soap and water that was boiled and cooled. If possible, squirt boiled and cooled water into the wound with a clean suction bulb or syringe without the needle.



3. Be sure to remove all the dirt. Dirt in the wound can cause infection. If there is a flap of skin, clean under the flap. Boil tweezers and use them to pull dirt or glass out of the wound that does not come out when you wash the wound.
4. Keep the wound clean. Do not put anything into the wound.



If the wound is very dirty or very deep or from an animal or human bite or a bullet, then do the following:

- \* Clean the wound as shown above.
  - \* Soak the wound in a bucket of boiled and cooled water with 1 teaspoon *potassium permanganate*.
  - \* Put antibiotic ointment on the wound and cover the wound with a clean bandage.
  - \* Do not close the wound. If you close the wound, the wound will probably become infected.
- \* If you cannot clean the wound well, or there is still dirt in the wound, or the wound is from a bite or the person has not received the tetanus vaccination, then give *amoxicillin*:  
 dose: adult, 2 tablets of 250 mg, 3 times each day for 7 days.
- or
- give *tetracycline*: (do not give to pregnant women, nursing women or children under 8)  
 dose: adult, 1 tablet of 250 mg, 4 times each day for 7 days.

#### HOW TO CLOSE LARGE WOUNDS

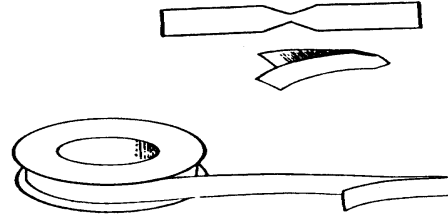
A large or deep wound that is very clean will heal faster if you pull the edges together and tape the edges together. Close a wound only if:

- \* The wound is less than 12 hours old.
- \* The wound is very clean.
- \* You cannot go to a health worker to close the wound.

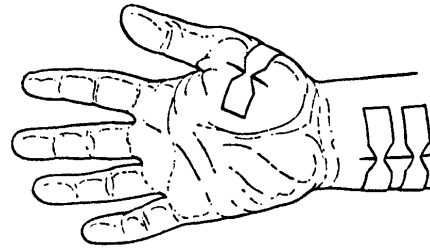
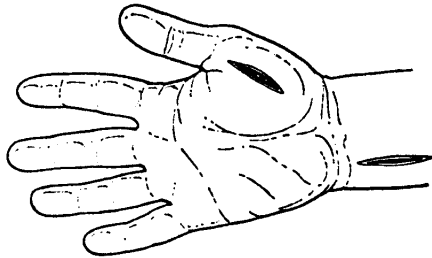
Before you close the wound, wash the wound well with boiled water and soap. Be sure to wash all of a deep wound. Be sure there is no dirt or glass in the wound.

To close the wound:

1. Cut white tape in the shape shown here.



2. Be sure the skin around the wound is dry. Put the tape on one side of the wound, pull the wound closed, then stick the tape to the other side of the wound.



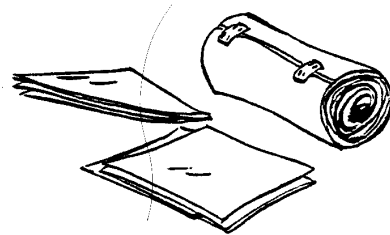
3. Cover the wound with a bandage to keep the wound clean.
4. Remove the tape after 7-10 days.

If the wound gets red, swells or pus comes out, then open the wound and wash the wound again. Do not close the wound again with tape. Cover the wound with a bandage until the wound heals.

**NEVER CLOSE AN OLD OR DIRTY WOUND. NEVER CLOSE A WOUND MADE FROM AN ANIMAL BITE OR PERSON BITE.**

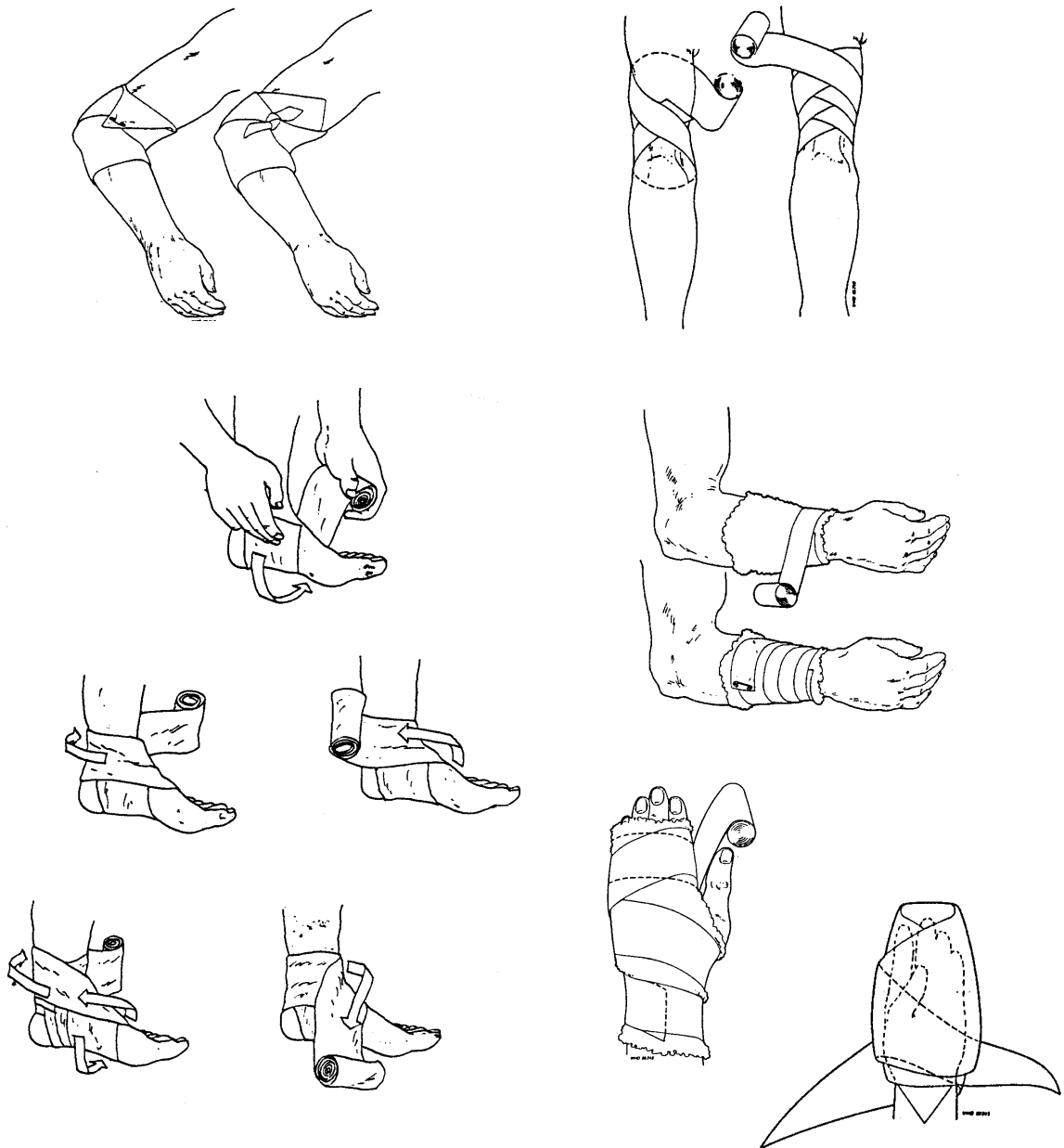
## HOW TO BANDAGE A WOUND

A bandage is a piece of cloth or gauze that covers a wound. Use a bandage to keep a wound clean. The bandage should be clean before you put the bandage on the wound. To make bandages, boil a few cloths and dry them in the sun or iron the cloths to kill germs. Keep the cloths in a clean, dry place and you can use them later.



If possible, cover the wound with clean gauze before you wrap the bandage around the wound. You can usually buy clean gauze in a paper wrapper at a pharmacy. Never put a dirty or wet bandage on a wound. If the bandage gets wet, bloody, or dirty on the side covering the wound, then take the bandage off. Wash the wound and put a clean bandage over the wound.

Here are some examples of how to cover a wound.



Tie the bandage tight but make sure it is not uncomfortable. You can also tape a bandage over a wound.

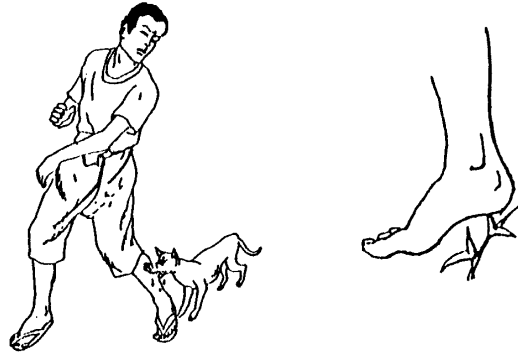
Most small cuts do not need bandages. Wash the cuts and let the air dry the cuts. Keep the cuts clean.

## INFECTED WOUNDS

### Cause of infected wounds:

Germ and dirt that get into a wound make the wound infected. Wounds that commonly get infected are:

- \* Dirty wounds and wounds made with dirty objects.
- \* Deep wounds and puncture wounds.
- \* Wounds made where animals are kept.
- \* Large wounds.
- \* Bites from animals or people.
- \* Bullet wounds.



### Signs of infected wounds:

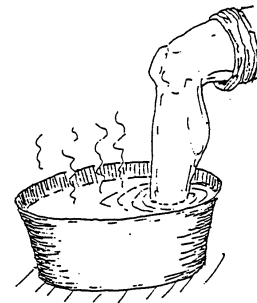
- \* The area around the wound becomes red, hot, painful and swells.
- \* There is pus in the wound.
- \* Sometimes the wound begins to smell bad.

If the germs spread into the body:

- \* The person will have a fever.
- \* There might be a red line above the wound.
- \* The lymph nodes in the area of the wound will swell. Lymph nodes catch germs. When there are many germs in the body the lymph nodes catch the germs and swell.

### How to treat infected wounds:

- \* Put cloths soaked in hot water on the wound for 20 minutes, 4 times each day. Soak an infected hand or foot in a bucket of hot water and soap.

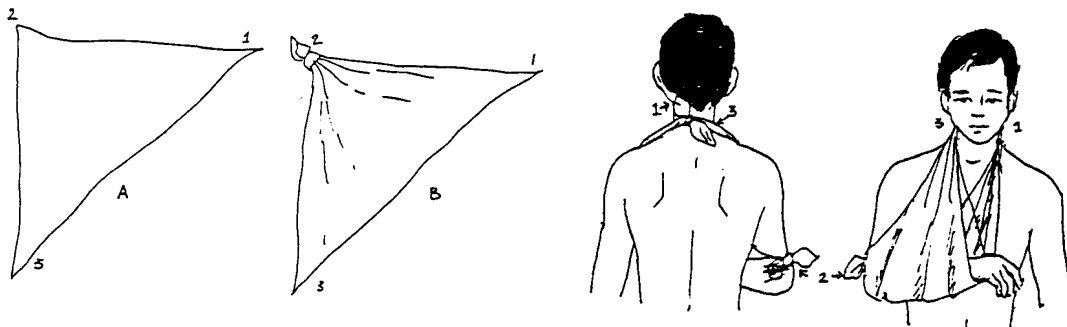


- \* Do not move the infected part and keep the infected part above the chest.
- \* If the infection is severe or the infection spreads to the body, give *penicillin V*: dose: adult, 2 tablets of 250 mg, 4 times each day until 2 days after infection is gone.
- \* If the wound has a bad smell, brown liquid or the skin turns black and has air bubbles, then the person might have gangrene. Get medical help fast. See Unit 13, "Gangrene" page 110.

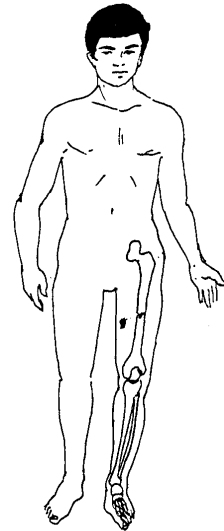
**BULLET WOUNDS, DEEP KNIFE WOUNDS AND OTHER SERIOUS WOUNDS**

Bullet and knife wounds get infected easily. Treat them as follows:

- \* Stop the bleeding and wash the wound. If the bleeding is not serious, let the wound bleed for a few minutes to clean the germs out. Only wash the surface of a bullet wound and do not stick anything inside the wound.
- \* Give *amoxicillin*:  
dose: adult, 2 capsules of 250 mg, 3 times each day.
- \* If the wound bleeds a lot, raise the wound above the chest. The person should not get out of bed and not move around. He should defecate and urinate in a container in bed. This will help the wound heal faster.
- \* Support an arm with a serious injury with a cloth like this:



- \* If you think the bullet went through a bone, do not use the arm or leg. If you use the arm or leg, the arm or leg might break. If you think the bullet went through a bone, splint the arm or leg and do not use the arm or leg for several weeks.
- \* Get medical help.
- \* If the person has not received the tetanus vaccine, send the person to get *tetanus antitoxin* and tetanus vaccine as soon as possible.

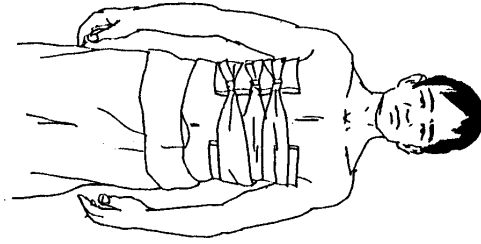


**How to treat a severe wound in the head:**

- \* Cover the wound with a clean bandage.
- \* The person should lean back with his head above his chest.
- \* Give *penicillin V*:  
dose: adult, 2 tablets of 250 mg, 4 times each day.
- \* Get medical help.

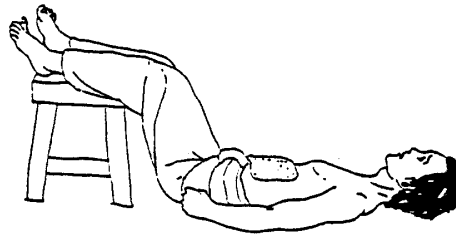
### How to treat a severe chest wound:

- \* If the wound goes into the lungs and air comes in and out of the wound, then cover the wound immediately. Put petroleum jelly or vegetable fat on a clean bandage and put the bandage on the chest wound to prevent air from coming out. Tie a wide cloth around the chest to keep the bandage in place.
- \* The person should stay in a comfortable position.
- \* Check for signs of shock. To treat shock see page 39.
- \* Give *penicillin V*:  
dose: adult, 2 tablets of 250 mg, 4 times each day.
- \* Give *paracetamol*:  
dose: adult, 2 tablets of 500 mg, every 2 hours if he needs it.
- \* Get medical help immediately. Chest wounds are very dangerous.



### How to treat a severe wound in the abdomen:

- \* Cover the wound with a clean bandage. If the organs come out of the abdomen, cover the wound and the organs with a clean cloth soaked in boiled water with some salt. Do not try to push the organs back inside.



- \* If the person is in shock, raise his feet higher than his head.
- \* **Do not give food or drink to a person with a wound in the abdomen.** If the person is thirsty, give him a cloth soaked in water to suck on.
- \* Inject *ampicillin*:  
dose: adult, 4 ampules of 250 mg, every 4 hours.
- or if there is no *ampicillin* inject *penicillin*:  
dose: adult, 5,000,000 units immediately, then 1,000,000 units every 4 hours.
- \* If you cannot get antibiotics to inject, give *amoxicillin*:  
dose: adult, 2 capsules of 250 mg, 3 times each day.
- or  
*penicillin V*:  
dose: adult, 2 tablets of 250 mg, 4 times each day.
- and  
also give *tetracycline*: (do not give to pregnant women, nursing women or children under 8)  
dose: adult, 2 capsules of 250 mg, 4 times each day.

- \* Take the person to the closest health center or hospital immediately. Get medical help immediately. A wound in the abdomen is very dangerous. The person will need an operation.

## BROKEN BONES

[Who fixes broken bones? What is their method? Is it potentially harmful?]

When a bone breaks, the bone will move when you move the body part. If the broken bone has sharp edges, the bone will cut the muscles around it. It is very important to not let the bone move. This will help the bone heal and prevent more damage.

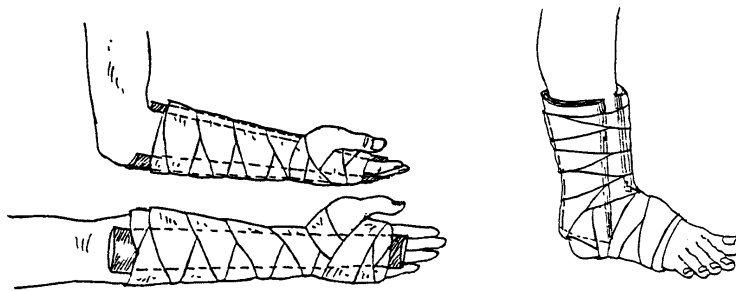
**NEVER RUB OR MASSAGE A BODY PART THAT HAS A BROKEN BONE.**

### Signs of a broken arm or leg:

- \* The arm or leg has pain, swelling, bruising and the person cannot move the hand or foot.
- \* The arm or leg might have a lump or be deformed.
- \* The person might hear a snap when he fell.

### How to treat a broken arm or leg:

- \* Before you move a person with a broken bone, tie a piece of wood above and below the broken bone to prevent the arm or leg from bending. Tie the wood above the closest joint above the broken bone and below the closest joint below the broken bone. This will prevent the broken bone from moving. Tie the splint tight, but not uncomfortably. Below are some examples of how to keep straight a broken wrist and a broken ankle:

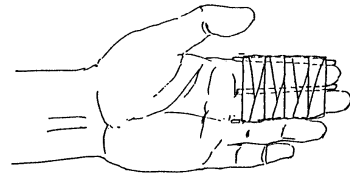


- \* If an arm is broken, support the arm with a bandage.
- \* If the upper leg is broken, tie a long piece of wood to the broken leg and body.
- \* Take the person to a health center immediately to get a cast over the broken arm or leg.



## BROKEN FINGER

A broken finger is painful and usually not straight. Pull outward on the finger, and while you pull up, move the finger so that it is straight. Put a flat, straight piece of wood between the broken finger and a normal finger. Tie the fingers together with pieces of cloth. Do not use the finger or bend the finger for 1 month.



## BROKEN RIBS

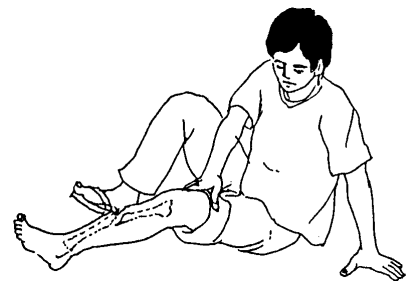
A broken rib is very painful, especially when the person breathes or coughs. The rib will usually heal by itself in 1-2 months if the person rests.

- \* To reduce pain, give *aspirin* or *paracetamol*:  
dose: adult, 2 tablets of 500 mg, every 2 hours if needed.
- \* If the person coughs up blood or has difficulty breathing, then maybe the rib made a hole in the lung.  
Give *penicillin V*:  
dose: adult, 2 tablets of 250 mg, 4 times each day.
- \* Get medical help.

## BONES THAT BREAK THROUGH THE SKIN

A bone that breaks through the skin can get infected very easily.

- \* Clean the wound with boiled and cooled water.
- \* Do not put the bone back into the wound. If the bone goes back into the wound, the person might get a very dangerous infection.
- \* Tie a long piece of wood above and below the broken bone to prevent moving.
- \* Give *penicillin V*:  
dose: adult, 2 tablets of 250 mg, 4 times each day.
- \* Take the person to a health center immediately.



## BROKEN NECK OR BACK

### Signs of a broken neck or back:

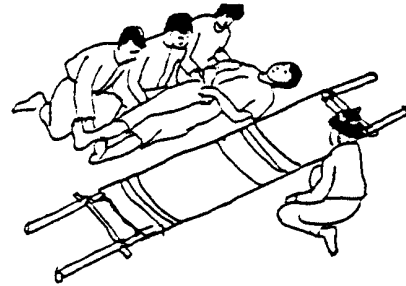
- \* The person had a bad fall or was hit with an object in the back or head.
- \* The person cannot feel or move his hands, feet or other body parts.

**How to treat a broken neck or back:**

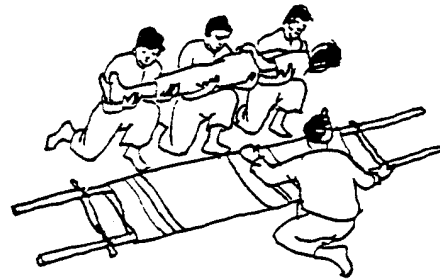
- \* Get medical help. If possible, bring a health worker to help move the person.
- \* If you must move the person, then move him without bending his neck or back. Try to keep his back and head straight.
- \* If a health worker cannot come, take the person with a broken neck or back to a health center.

**How to move a person with a broken neck or back:**

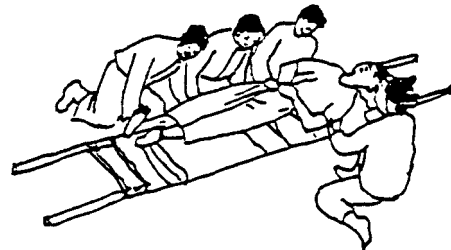
1. 3 people should help lift the injured person. Slide your hands under the injured person. Be sure one person supports the head. Lift the person carefully without bending the body or neck.



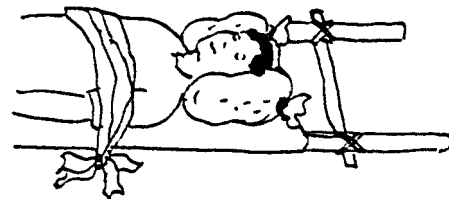
2. Another person puts a flat board or stretcher under the injured person.



3. Carefully lay the injured person on the board or stretcher without bending the body or neck.



4. Put bags of sand or tightly rolled clothes next to the head to prevent the head from moving. Tie the person to the stretcher with cloth.



## **DISLOCATED BONES**

### **Signs of dislocated bones:**

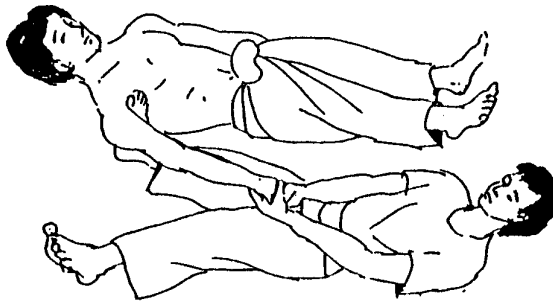
- \* Pain in the joint.
- \* The person is not able to move the joint normally.
- \* The joint is swollen.
- \* The finger or arm is not in the right place.

### **How to treat dislocated bones:**

- \* Try to put the bone back into the joint soon. The bone will be harder to put back into the joint if you wait.

To put a dislocated shoulder back into the joint:

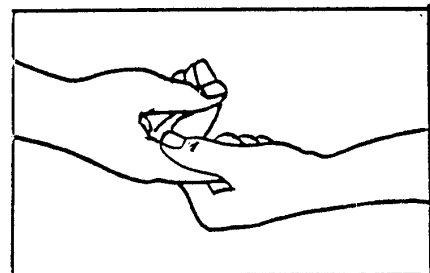
1. Lie down next to the injured person and put your bare foot in the armpit of the dislocated shoulder.
2. Pull his arm down and towards you for 10 minutes.
3. After 10 minutes, move the arm closer to the body and move your foot a little to let the bone go back into the joint.



To put a dislocated finger back into the joint:

1. Pull outwards hard on the dislocated finger.
2. Move the dislocated finger straight over the joint.
3. Let the dislocated finger go back into the joint.

- \* Do not do hard work with the limb for 3 months to allow the joint to get strong.



**SPRAINS (bruising or tearing a twisted joint)**

[What is done for sprains? Is it potentially harmful?]

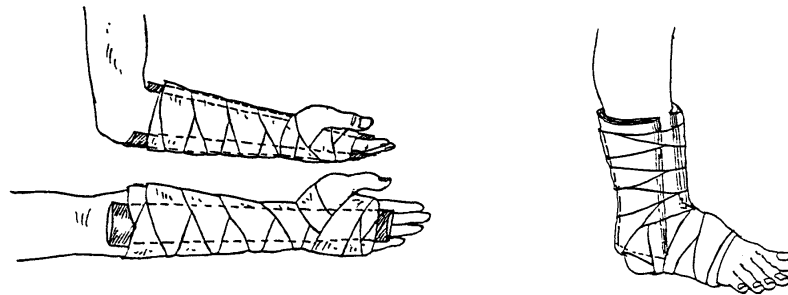
Many times you cannot know if a person has a broken bone or a sprain without a doctor to check the injury.

**Signs of a sprain:**

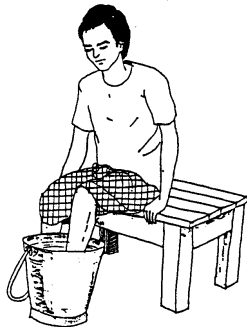
- \* Pain, bruising and swelling in a joint after an accident.
- \* There is pain when the person tries to move or use the joint.

**How to treat a sprain:**

- \* You treat a broken bone and a sprain the same way.
- \* Wrap an elastic bandage around the joint or tie a piece of wood above and below the joint so that the joint cannot move. Do not let the joint move for 3 or 4 weeks.



- \* If the foot or hand is loose or the person has trouble moving the foot or hand, then take him to a health center. He might have torn the muscle.
- \* To reduce pain and swelling, raise the injured part above the chest.



During the first day soak the sprained part in cold water or put cold, wet cloths on the swollen part.



After the first day, soak the sprained part in warm water 5 times each day.

**DO NOT RUB OR MASSAGE A SPRAINED JOINT.**

## **ABDOMINAL EMERGENCIES**

### **Causes of abdominal emergencies:**

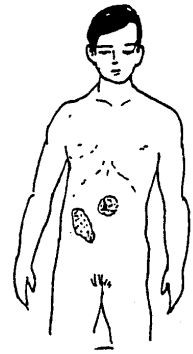
There are 3 things that cause most abdominal emergencies:

1. Something blocks food and feces from moving through the intestines. When the body tries to push the food and feces through the intestines, it will not move and there is a lot of pain. The blockage can be a ball of worms in the intestines or a twisted intestine.
2. The appendix or another organ in the abdomen gets infected or breaks open.
3. An ulcer in the stomach breaks open and bleeds a lot.

You will not know the cause of the abdominal emergency until a doctor can check the person.

### **Signs of abdominal emergencies:**

- \* The person has severe, continuous pain in the abdomen. The pain continues to get worse.
- \* The person is constipated and vomits. The person might vomit very far. The vomit might smell like feces.
- \* The abdomen might be hard and swollen. The person does not want anyone to touch the abdomen because it hurts.
- \* When you listen to the abdomen, you might not hear any normal sounds.
- \* The person acts very sick and might have a low fever.
- \* The appendix is in the lower right abdomen. If the appendix is infected, there will be pain in the lower right abdomen.
- \* If you slowly press on the lower abdomen and quickly take your hand up, the person will have severe pain.



### **How to treat abdominal emergencies:**

- \* Get medical help immediately. Take the person to a health center where he can have surgery. The person might die without surgery.
- \* Do not give the person anything to eat or drink. If he has signs of dehydration, give him small drinks of rehydration drink, but nothing else.
- \* The person should rest quietly and sit leaning back.

**HEAD INJURIES: See "How to treat severe wounds in the head" page 49.**

## **STROKE**

### **Cause of stroke:**

A broken or blocked blood vessel in the brain causes a stroke.

### **Signs of a stroke:**

- \* Common in old people.
- \* Usually very sudden.
- \* The person might fall down and be unconscious for hours or days.
- \* The person's face is often red and he has difficulty breathing.
- \* The pulse is strong and slow.
- \* Later the person has difficulty talking, seeing or thinking. One side of his face or body might droop or not be able to move.



### **How to treat a stroke:**

- \* Put the person in bed with his head higher than his feet.
- \* If he is unconscious, turn his head to the side to prevent choking on vomit or saliva.
- \* Get medical help.
- \* Later the person should avoid hard work and anger.

## **BURNS**

[How are burns treated? What is put on or into burns?]

### **Causes of burns:**

Fire, hot objects and certain chemicals can cause burns. This book tells about 3 kinds of burns. Minor burns, burns with blisters and deep burns.

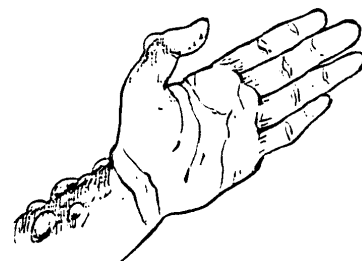
### **Minor burns:**

Minor burns do not have blisters. Minor burns hurt and might turn red. To reduce the pain, put minor burns in cold water immediately and give *aspirin* or *paracetamol*:

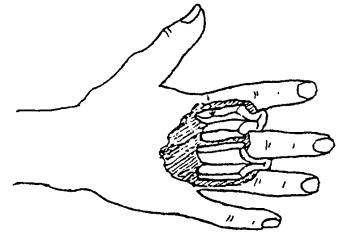
dose: adult, 2 tablets of 500 mg, every 2 hours if needed.

### **Burns with blisters:**

- \* Do not break the blisters.
- \* If the blisters break, wash the burn with soap and boiled water that has cooled.



- \* Heat some petroleum jelly until it boils. Let the petroleum jelly cool. Spread the petroleum jelly on a piece of clean gauze or a boiled and dried cloth and cover the burn with the gauze or cloth. If the burn is between body parts that rub together such as the fingers or armpit, put the gauze with petroleum jelly between the burned parts to prevent the parts from sticking together.



**RINSE ALL BURNS IMMEDIATELY WITH CLEAN, FLOWING WATER FOR 20 MINUTES.  
NEVER PUT FAT, BUTTER, TOOTHPASTE OR OTHER THINGS ON A BURN.**

- \* If there is no petroleum jelly, leave the burn uncovered. If the burn is large, loosely cover the burn with a boiled and dried cloth. Change the cloth if it gets dirty or wet with blood.
- \* Keep the burn clean. Do not let dirt or flies touch the burn.
- \* Straighten burned hands, arms and legs each day while they heal. This hurts, but it prevents scars that limit movement.
- \* If there are signs such as pus, fever, bad smell and swollen lymph nodes, then the burn is infected. Put a cloth soaked in warm salt water on infected burns 3 times each day. Boil the cloth before you use it. To make the salt water, add 1 teaspoon salt to 1 liter boiled water. Carefully remove any dead or loose skin from the burn with boiled tweezers. Put some antibiotic ointment on the burn.
- \* If the person has a fever, give *penicillin V*:  
dose: adult, 2 tablets of 250 mg, 4 times each day until the fever is gone for 2 days.

### **Deep burns:**

A deep burn is a burn where the skin is burned off. Under the burn is black or raw tissue. Deep burns are very dangerous, especially if a lot of the body is burned. Take the person to a health center immediately. Wrap the person in a clean cloth before you move him. If you cannot get medical help, treat the burn the same as a burn with blisters and also do the following:

- \* Give *penicillin V*:  
dose: adult, 2 tablets of 250 mg, 4 times each day.

The pain from burns and loss of fluids from burns can cause the person to go into shock. To prevent more problems:

- \* Comfort the burned person.
- \* To reduce pain, give *aspirin* or *paracetamol*:  
dose: adult, 2 tablets of 500 mg, every 2 hours if needed.
- \* Add 1 teaspoon salt to each liter of boiled and cooled water. Pour the water over the burns to reduce pain.

\* The burned person should drink a lot of liquids. If the burn is larger than the person's 2 hands, give him the following drink:

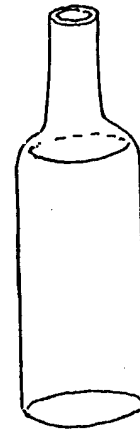
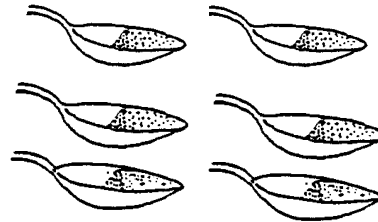
Add 1/2 teaspoon salt



1/2 teaspoon baking soda (if available)



and 6 teaspoons of sugar to 1 liter of water.



The burned person should drink this often, at least until he urinates frequently.

\* The burned person should eat all kinds of nutritious foods. Especially meat, eggs, fish, milk, nuts and beans. This will help him get better.

## **POISONING**

[What are the most common poisons in the area?]

Small children do not know what things are poisonous. Sometimes small children eat things which are poisonous. Poisons damage the body and can kill people.

Some common poisons are:

- |                      |                               |
|----------------------|-------------------------------|
| * Rat poison         | * Alcohol                     |
| * <u>Insecticide</u> | * Poisonous seeds and berries |
| * Medicines          | * Matches                     |
| * <u>Bleach</u>      | * Kerosene, gasoline          |
| * <u>Detergent</u>   | * Mushrooms                   |

### **How to treat poisoning:**

- \* Make the person vomit. Put your finger in the person's throat until he vomits. Drinking water with soap or salt will also make a person vomit.
- \* Make the person drink a lot of milk, raw eggs or flour mixed with water. Feed him a tablespoon of crushed charcoal if possible. Keep feeding him milk, eggs or flour and make him vomit until the vomit is clear.



**BUT, A PERSON WHO SWALLOWED KEROSENE, GASOLINE OR CORROSIVE SUBSTANCES, SUCH AS LYE OR ACID, SHOULD NOT VOMIT. ONLY MAKE HIM DRINK MILK, RAW EGGS AND FLOUR IN WATER.**

\* Get medical help.

### How to prevent poisoning:

- \* Keep all poisons on high shelves or in cabinets that children cannot get into.
- \* Teach children which seeds, berries and mushrooms are poisonous.

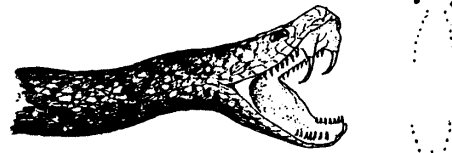
### SNAKEBITE

[What poisonous snakes are in the area? What are the traditional treatments?]

Try to find out what kind of snake bit the person. Some snakes are poisonous and some snakes are not poisonous. A poisonous snake makes different bite marks than a snake that is not poisonous.

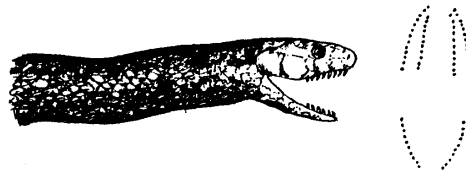
A poisonous snake leaves fang marks and sometimes other small teeth marks.

POISONOUS SNAKE



A non-poisonous snake leaves 2 rows of teeth marks, but no fang marks.

NON-POISONOUS SNAKES



### How to treat snakebites:

- \* The person should stay quiet and not move the part that the snake bit. When the person moves, the poison spreads in the body. If you must move the person, then carry him on a stretcher with the snakebite lower than the chest.
- \* Keep the snakebite below the chest to prevent the poison from entering the heart quickly.
- \* Tie a cloth tightly 2 inches above the snakebite. Do not tie the cloth too tight. If the area swells a lot, move the cloth up 1 or 2 inches.
- \* Wrap the bite in a cloth soaked in cold water or put the bite in cold water.
- \* Take the person to a hospital immediately.
- \* Never drink alcohol. Alcohol makes the problem worse.



**POISONOUS SCORPION AND SPIDER BITES**

[What kinds of scorpions and spiders are in the area? How dangerous are they? What are the traditional treatments?]

Scorpions and some spiders are dangerous, especially if they bite children. If the scorpion is dangerous, treat the same as snakebite and get medical help.

Give the person *paracetamol* or *aspirin*:

dose: adult, 1 or 2 tablets of 500 mg, 4 times each day.

