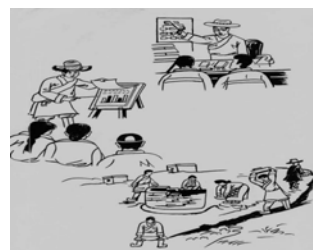


FUTURE GENERATIONS/CHINA

TO RESEARCH, TO DEMONSTRATE, TO TEACH- HOW COMMUNITIES CHANGES



PENDEBA MANUAL " PREVENTIVE HEALTH CARE "

PENDEBA MANUAL DEVELOPED BY:

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1. PURPOSE OF THIS MANUAL:



This manual is to help Pendebas, as they work in and help their communities. It tells how to balance the many duties of the Pendeba, how to focus on better relations with health services, and also how to give attention to other aspects of social development and conservation. In health care the focus is on local empowerment in the home and community so that people can take better care of



themselves. The trend in health care is often to make case more complicated and to make more use of hospitals. But the Pendebas effort is to put priority more on care by the mother, a family and village.

This manual starts with simple but easily forgotten rules to promote community, relations, happiness and well being. These rules were put

together by Pendebas meeting in a workshop.

1. Show that you care about others and be kind in looking for ways to help everyone.
2. Show respect for common people, especially those in great need, not just people who are educated and wealthy. When needy people are empowered in health, education and economy, the whole community will be wealthy.
3. Share what you learn and practice what you teach because your example is more important than your words.
4. Know your own limits, don't show off, refer problems and share responsibility. Learn how to identify problems and then work with the people to solve problems by trying everyone's ideas. Getting facts and working together builds up partnership action so that everyone shares benefits.

5. Respect traditional wisdom in the community but don't be bound by it, always be ready to learn new knowledge and integrate it with old wisdom to get acceptance by the whole community.
6. To promote community change start with success to solving the problems people are already aware of it, gather facts about possible causes and solutions, test ideas over time.
7. Be patient, don't dominate or impose your decisions, but look for partners who also see the need for change and focus on their feelings and ideas.
8. Build on and help develop local capacity and resources for long-term self-reliance. Get help from those who know the community best. Bring in outside help when it saves time and helps produce benefits that would not otherwise be possible.
9. Help the people to get balanced understanding of problems causing people to disagree such as:
 - i. Economic Development or Environmental Conservation,
 - ii. Present Needs or Future Benefits,
 - iii. Prevention or Treatment,
 - iv. Economic Benefit or Social Need,
 - v. Practical Work or Spiritual/Emotional Values.
10. Always look for ways to make community learning and work fun, especially for children and youth, fitting it in with local festivals and introducing beauty and joy into everyday living.

2. WHAT IS A PENDEBA?

The word Pendeba is the name of a **community-based volunteer worker**. It is made up of three Tibetan words: Pen—means “benefit” the whole community; Deh—means “harmonious, healthy, holistic and peaceful” uplift; Ba means “worker”.

The best indication of the excellent work Pendebas do is the great demand for them in the villages of Qomolangmo National Nature Preserve (QNNP), Nyingchi, Chamdo and Nagchu Prefectures. Some larger villages already more



Pendebas and in the future it is probable that most villages will demand more both a female and male Pendeba. They are so well known across Tibet that there is demand for the program to extend into other Prefectures.

3. CRITERIAS FOR SELECTION OF NEW PENDEBAS:

1. When choosing the village that will get new Pendeba, first priority should be given to the

most rural and poor villages. See picture



2. Highest priority should go to a **married woman** who is universally respected and believed in by all parts of the community.

3. Age preference would be good between 20 to 40 years if possible.

4. Someone from a middle level family in economic status is preferred because the poorest families have greater problems supporting the volunteer work.

5. The person must be sincerely interested in service and self-motivated for social work and should not expect many future personal benefits.

6. The individual should be able to give adequate time to Pendeba work with clear

expressions of support from the family.

7. The Pendeba and the community should develop mutual understanding and agree on the roles and responsibilities of each partner.

8. Village leaders, Xiang Pendebas and the community should discuss and agree on what support each partner will provide when selecting a new Pendeba.

9. After selection the Pendeba and village leaders should inform county leaders and the Xiang Pendeba, who will be that Pendeba's supervisor.

10. If the Pendeba's selection did not have adequate discussion and involvement by all parts of the community and of local leaders, they should declare the results unacceptable and ask that they select again.



4. THE ROLE OF THE VILLAGE PENDEBA:

1. Pendebas are selected from and by the community and should demonstrate sincere motivation to serve the community.
2. Pendebas must be trained to identify the main success and problems in their village, help the people set priorities, and in regular community dialogue develop an action plan: by identifying success and problems, gathering facts, possible solutions, and testing and applying their own solutions.
3. Pendebas help their community and village leaders prepare the annual action plan, gather data and write reports to go to concerned partners.
4. Pendebas should be respected by the community as they show they can motivate the people to work on their own development priorities including:
 - 1) Education, awareness and empowerment
 - 2) Environmental conservation and natural resource protection,
 - 3) Education on basic health care and preventive,
 - 4) Economic development and income generation with special help for women, children and people in greatest need.
5. Pendebas should have basic knowledge about:
 - a. Immunization,
 - b. Sanitation,
 - c. Family planning,
 - d. Safe-motherhood and helping deliver babies,
 - e. Diagnosing and preventing diarrhea and pneumonia and teaching mothers how to prepare and use Tsampa ORT and diagnose rapid and difficult breathing and how to give simple treatment for pneumonia.
 - f. Nutrition, food security, preventing Vitamin A deficiency and anemia,
 - g. Referring patients to the health post,
 - h. Environment and natural resources protection,



- i. Kitchen gardening,
- j. Income generation,
- k. Establishing cooperatives.
- l. Demonstrating in their own behavior a new way of life and teaching families through personal example how to show concern and caring in improving harmonious relationships in the village.

5. SCALING UP THE PENDEBA PROGRAM.

SCALE ONE: COMMUNITIES BUILDING FROM SUCCESS. SUCCESSFUL CHANGE AS LEARNING EXPERIENCES.

The remarkable growth of the Pendeba program has been successful because it depends on self reliance, a strong characteristic all Tibetans and of Pendebas and builds on the natural capacity of the village people. The way Pendebas work is a unique demonstration of what Tibetans can do



for their own development. The precious inner building of skills and attitudes that has been a unique strength of the program thus far must continue.

Community enthusiasm has been high because Pendebas and village people could see that their neighbors' living conditions were benefiting from the hard work they were doing. Much of this extra work was actually done by the Pendeba's immediate family

members, who should be given much credit for the success of the whole program.



COMMUNITIES BUILDING FROM SUCCESS.



Now with scaling up for much greater expansion, the most successful Pendeba villages will become SCALE Squared Centers with much greater responsibility for two new functions: **Action Learning and Experimentation**. These are activities that require more training and therefore more support should come from outside the community.

There are different tracks of specialized activities developing

in addition to the original requested by communities. Certain Pendebas are already specializing in important skills that will need to be recognized for the special competence required, as they get special training.

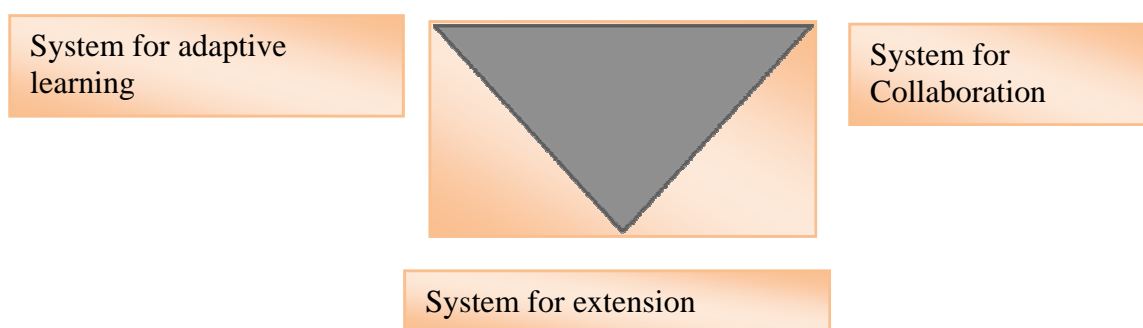
1. Most important is that the program must be able to assure that the quality of work done by each person is called a Pendeba who meets the standards expected. Responsibility for this must be supported by the whole group.
 
2. The reputation of Pendebas has been built on the **excellent work done by some**. This will be damaged if word gets out that others may not be meeting basic standards of care and quality of work.
 
3. Internal controls will be increasingly needed under the program directors and the whole group of Pendebas. Since each village is different they all should go through a simplified process in making an **annual work plans** to adapt programs to their own conditions each year.
4. The first year this requires a major effort to gather data, analyze it, set priorities, test solutions, assign responsibility and accountability and find resources for implementation.
5. In following years the work plan will be based on what happened in the past year, identifying successes and activities for improvement and new needs. Community dialogue can use the following steps.
 - Review evidence to agree on major priority problems that Pendebas can focus on to help their villages to improve. These will be grouped under two headings: General Problems shared by all villages; and Special Problems needing focused attention.

- Causal Analysis—to discuss why problems are present both in terms of immediate causes and underlying causes. It is important to distinguish between them because the underlying causes can often affect more than one problem.
- Functional Analysis—to discuss the possible solutions for each problem and then focus on what functions must be performed in order to solve them. It may be necessary to divide into subgroups in order to cover all the problems. Under each function there will be need to identify the particular activities needed and levels of expertise and skill that may require special training and equipment.
- Role Reallocation—the focus will be first on the Basic Pendeba roles to get agreement on what each one should do as a continuing routine service for the village. The functions and activities can be classified under columns on charts. For example, specific functions to be carried out by families; by community members in organizations such as associations of women, youth, farmers, etc.; by the Pendebas themselves; by outside services; by referral.
- Mobilization of persons who will be held accountable and of the necessary resources—ordinarily planning starts by asking what resources in personnel and money are available, but in this process that is the final stage when it is clear through participatory cooperation what really needs to be done. When there are activities that cannot be managed in a particular year, it is OK to simply postpone that to another year or time depending on relative priority. Part of the decision making then is to build an information system for records of what has been accomplished by whom so that the next year's evaluation can be part of a progressive annual process. This process must have total transparency. For instance charts can be posted in the village for everyone to follow on a community bulletin board with periodic reports.
- Specialized Tracks of Pendeba Functions—Over time similar analysis can be done for each of the functional categories that are emerging. For example: Teaching Pendebas will staff the SCALE SUARED Training center; other specialties can be Ecology and Environmental Protection; Referral Pendebas for specialized types of clinical care; Maternal Care and Family Planning; Income

Generation; Ecotourism and other categories they may evolve such as in community organization, etc.

It is important to realize that no community should be expected to produce a perfect plan. There will be many changes that will have to be made as the people adapt activities to local conditions, with some ideas working well in some situations but needing change in other areas. Supervisors will have to learn the skills to record the relative successes and difficulties that are observed. Corrections can be made with trials of new ideas and practices that may improve performance. Particularly important is to “embrace error”—to look for things that are not working well—but not to blame the people involved; instead they should be congratulated when they make suggestions based on failure about something that needs to be changed. When someone has identified a problem they are making a big step to solving it. People should be encouraged always to be continually improving practices for themselves and for everyone. This is a large part of the basic effort to build capacity in the communities and families as they learn from the Pendeba ways to take care of problems in the homes rather than having the Pendeba try to do everything. The Pendeba program can then continue to grow and always improve.

SCALE CUBED



1. Scale one has the single focus of building from success.
2. Scale square has the dual tasks of experimentation and training.
3. Scale cubed used three systems to promote collaboration, adaptive learning, and extension.
 - Scale cubed, officials and experts need to relinquish control systematically to allow capacity within communities to grow.

- But in Scale squared the role of officials and experts is to instruct.
- Scale Cubed their role is to empower, not by just getting out of the way but by positively affirming communities' capacity to achieve change.

Scale one, Scale Square and Scale Cubed must ultimately come together as three dimensions of the same process. But how they come together depends greatly on how the three partners cooperate.

More details in Just and Lasting change Book.

PRINCIPLES, STRATEGIES AND PROCESS OF THE COMMUNITY BASED DEVELOPMENT.

1. Four Principle:

- Build from Success,
- Three-way Partnerships,
- Make decisions based on evidence an
- Behavior changes)

2. Seven tasks:

- Create local coordinating committee (CLCC),
- Identify past successes,
- Visit other communities to learn methods that can be adapted back home,
- Self-evaluate,
- Focus on community priorities and create local work plans,
- Take action and encourage all partners to do their work plan and
- Make needed mid-course corrections)

3. Criteria:

- Equity.
- Sustainability.
- Interdependence.
- Holism.
- Iteration).

There way partnerships:

1. Top down (Officials)
2. Bottom up (Communities).

3. Outside in (Experts).

1. **Government focuses on:**
- Structure.
 - Policy.
 - Management,
 - Resources.

2. **Experts focus on:**

- Technical Skills.
- Statistics.
- Empowerment.
- motivation.

3. **Community focuses on:**

- Direct benefits.
- Solving problem.
- Implementing activities.

Action based on locally specific Data:**Example:**

- Number of health centers.
- Number of Schools.
- Number of Trees.
- Number of Clean Drinking water taps.
- Number of women and men who have accepted family planning.
- Sources of water.
- Number and causes of child deaths.
- Nutrition etc.



C). Action three: Study successes elsewhere.



D). Action four: Self-evaluation.



E). Action five: Effective Decision making.



F). Action six: Take action on at least one achievable agreed on priority.



G). Action seven: Involve people in monitoring activities to make midcourse correction.

FIVE CRITERIA FOR TESTING ACTION.

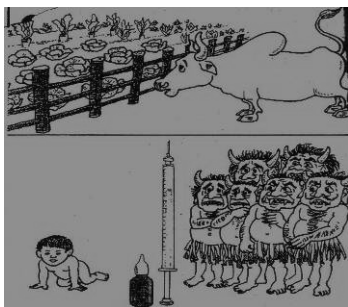


1. **Equity**. Equity is a justifiable goal for more than moral reasons. It reaches people in greatest need which is essential for solutions that make real change.
2. **Sustainability**. Most important, sustainability must retain a human face: so change must not undermine the transmission of cultural values to the next generation.
3. **Interdependence not dependency**. Interdependent development does not advocate that particular groups try to stand on their own but that they create links that foster great, cumulative strength.
4. **Holistic**. People are whole beings, each individual with unique needs. Action in one area stimulates progress in other areas; together they strengthen the fabric of community and family life and produce foster a rising tide of change.
5. **Iterative action**. Successful development grows through repeated learning and through continual adjustments in complex relations. Iterative action identifies problems and monitors the effects of change in an ecological way, sensitive to ways that elements in the system are linked.

6. IMPORTANCE OF IMMUNIZATION!

EXAMPLE: WHY IMMUNIZATION.

1. Fence



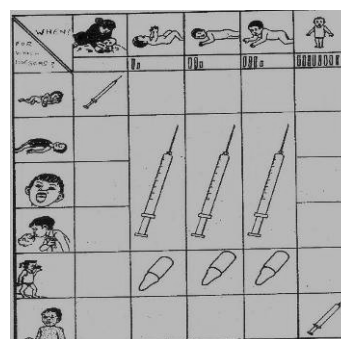
to protect kitchen garden from Animal.

2. Immunization is to prevent from 6 killer diseases.

The single most effective method of preventing sickness and death at lowest cost is to make sure that **every child gets immunized** according to the schedule recommended by UNICEF and WHO. This is so important that government services do this free, but the Pendebea has the most important responsibility which is to see that the child gets to the vaccination point, gets immunized and the family keeps the record in a safe place at home.



Six vaccines are required for the child in the first year of life, with repeat doses of several when the child starts to school. They are called BCG, DPT, Polio and Measles. In addition, during or before pregnancy the mother should be given tetanus vaccine.



BCG (For Tuberculosis).

This injection is given as soon after birth as possible. It is an injection into the skin usually of the shoulder where it causes an inflamed small sore which is normal and leaves a small scar which shows that the child has been protected. It is very important to get this if any



member of the family or close friend has a chronic cough.

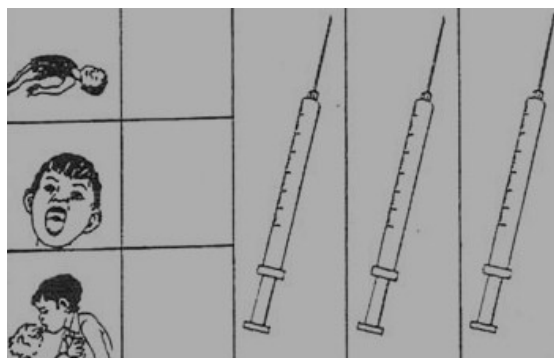
DPT (A combined vaccine for three common diseases: diphtheria, whooping cough, and tetanus).

Three injections are needed about a month apart starting at 2 months of age. All three-diseases



frequently cause death of babies. Diphtheria is a very severe infection of the throat.

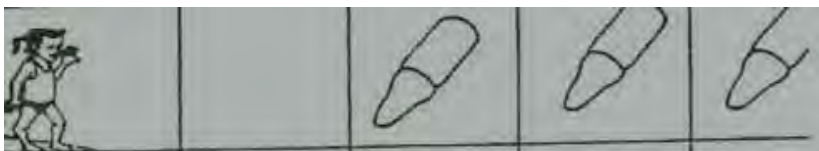
Whooping cough (Pertussis) causes a deep cough with a whooping sound when the child breathes. Tetanus infects the baby if the cord is not



protected properly at birth and causes rapid death.

POLIO (Oral vaccine for poliomyelitis or infantile paralysis).

This is a liquid vaccine given in the baby's mouth soon after birth and twice more at intervals of one month (usually given at the same time as DPT). It is also given as part of national polio eradication campaigns. The vaccine should be kept frozen.



MEASLES.

Measles causes many death and server epidemics. The vaccine is given by injection and must be kept frozen until time to use. It is usually given at about 9 months of age and with a booster dose later.



7. SANITATION:

Prevention is better than cure. Just as we all must take care to keep ourselves and our **food clean**, healthy and nutrition with good personal hygiene, we must also use sanitation to keep our homes, and our villages clean. Just as we must be sure that our children are vaccinated we must also prevent other sicknesses before they start. Sanitation prevents many kinds of infections of the gut, the skin, the eyes, the lungs, and the whole body. Personal hygiene and public sanitation are both important.



Many common infections of the gut are spread from one **person to another** because of poor hygiene and poor sanitation. Germs and worms (or their eggs) are passed by the thousands in the **stools** or **feces** (shit) of infected persons. These are carried from the feces of one person to the mouth of another by dirty fingers or contaminated food water or flies. Diseases that are spread or **transmitted** from **feces to-mouth** in this way include:



1. Intestinal worm eggs (several types)
2. Diarrhea and dysentery (caused by amebas and bacterial)
3. Hepatitis, typhoid fever, and cholera
4. Certain other diseases, like polio, are sometimes spread this same way

The way these infections are transmitted can be very direct.

For example: A child who has worms and who **forgot to wash** his hands after his last bowel movement offers his friend some food. His fingers, still dirty with his own stool, are covered with hundreds of tiny worm eggs (so small they can be seen only with a microscope). Some of these worm eggs stick to the food. When his friend eats the food, he



swallows the worm eggs, too. Soon the friend will also have worms. His mother may say this is because he ate sweets. But no, it is because he ate shit!

Many times pigs, dogs, chicken, other animals and especially flies **spread intestinal diseases and worm eggs.**



For example: A man with diarrhea or worms has a bowel movement behind his house. A pig or more often a dog eats his stool, dirtying its nose and feet. Then the pig or dog goes into the house. In the house a child is playing on the floor with the pig or dog. Some of the man's stool gets on the child, too. Later the child starts to cry, and the mother takes him in her arms. Then the mother prepares food, **forgetting to wash** her hands after handling the child. The family eats the food. And soon, the whole family has diarrhea or worms.

Many kinds of infections, as well as worm eggs, are passed from one person to another. If the family had taken any of the following precautions, the spread of sicknesses could have been prevented.

1. If the man had used a latrine.
2. If the family had not let the pig or dogs come into the house,
3. If they had not let the child play where the dog had been,
4. If the mother had washed the baby or her hands after touching the child before preparing food.

If there are many cases of diarrhea, worms, and other intestinal parasites in your village, people are not being careful enough about cleanliness. If many children die from diarrhea, it is likely that poor nutrition is also part of the problem. To prevent death from diarrhea, sanitation, personal hygiene and good nutrition are important.

BASIC GUIDELINES OF PERSONAL HYGIENE AND SANITATION:

Personal hygiene:

1. **Always wash your hands** with soap when you get up in the morning, or after having a bowel movement, And before eating.
2. Bathe often – Whenever possible when the weather is hot. Bathe after working hard or sweating. Frequent bathing helps prevent skin infections, dandruff, pimples, itching, and rashes. Sick persons, including babies, should be bathed regularly.
3. In areas where hookworm is common, do not go barefoot or allow children to do so. Hookworm infection causes severe anemia. These worms enter the body through the soles of the feet.
4. **Brush your teeth every day** and after each times you eat food is the best. If you do not have a toothbrush and toothpaste, rub your teeth with whatever is available locally.



Sanitation in the home:

1. Do not let animals come into the house or places where children play.
2. Do not let dogs or pig lick children or climb up on beds. Dogs and Pigs, too, can spread disease.
3. If children or animals have a bowel movement near the house, clean it up at once. Teach them to use a latrine or at least to go farther from the house.
4. Hang or spread cloths and blankets in the sun often. If there are bedbugs pour boiling water on the cots and wash the sheets and blankets-all on the same day.
5. Lice and fleas carry many diseases. Dogs and other animals that carry fleas should not come into the house.
6. Do not spit on the floor and inside the house. Spit can spread diseases. When you cough or sneeze, cover your mouth with your hand or a cloth or handkerchief.



- Clean house often. Sweep and wash the floors, walls, and beneath furniture. Fill in cracks and holes in the floor or walls where roaches, bedbugs, and scorpions can hide.

Cleanliness in eating and drinking:

- All water that does not come from a pure water system should be boiled before drinking.



This is especially important for small children and at times when there is a lot of diarrhea or cases of typhoid, hepatitis, or cholera. Water from ponds or rivers, even when it looks clean, may spread diseases if it's not boiled before use.

- Do not let flies and other insects land or crawl on food. These insects carry germs and spread diseases. Do not leave food scraps or dirty dishes lying around, as this attracts flies and breeds germs. Protect food by keeping it covered or in boxes or cabinets with wire screens.

- Before eating fruit that has fallen to the ground, wash it well. Do not let children pick up and eat food that has been dropped wash it first.
- Only eat meat that is well cooked. Be careful that roasted meat, especially pork, does not have raw parts inside. Raw pork carries dangerous diseases.
- Do not eat food that is old or smells bad. It may be poisonous. Do not eat canned food if the can is swollen or squirts when opened. Be especially careful with canned fish.
- People with tuberculosis, flu, colds, or other infectious diseases should eat and sleep separately from others. Plates and utensils used by sick people should be boiled before being used by others.

How to care for your children's health:



- A sick child should sleep apart from other children who are well. Sick children or children with sores, itchy skin, or lice should always sleep separately from those who are well. Children with infectious diseases like whooping cough, measles, or the common cold should sleep in separate rooms, if possible, and should not be allowed near babies or small children.

2. Protect children from tuberculosis. People with long-term **coughing or other signs of tuberculosis** should cover their mouths whenever they cough. They should never sleep in the same room with children. They should see a health worker and be treated as soon as possible. Children living with a person who has tuberculosis should be vaccinated against TB (B.C.G. Vaccination)
3. Bathe children, change their clothes, and cut their fingernail regularly. Germs and worm eggs often hide beneath long fingernails.
4. Treat children who have infectious diseases as soon as possible, so that the diseases are not spread to others.
5. Teach children to follow these guidelines and explain why they are important. Encourage children to help with projects that make the home and village a healthier place to live.
6. Be sure children get **enough good food**. Good nutrition helps protect the body against many infections. A well-nourished child will usually resist or fight off infections that can kill a poorly nourished child.

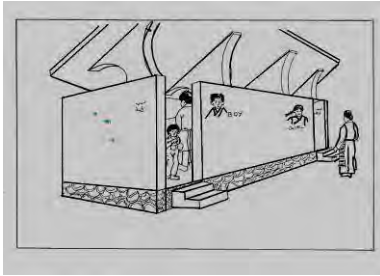


Public sanitation:

1. Keep wells and public **drinking water clean**. Do not let animals contaminate places where people get drinking water. If necessary, put a fence around the place to keep animal out.
2. Do not defecate (shit) or throw garbage near water sources. Take special care to keep rivers and streams clean upstream from any place where drinking water is taken.
3. **Burn all garbage** that can be burned. Garbage that cannot be burned should be buried in a special pit or place far away from houses and the places where people get drinking water.



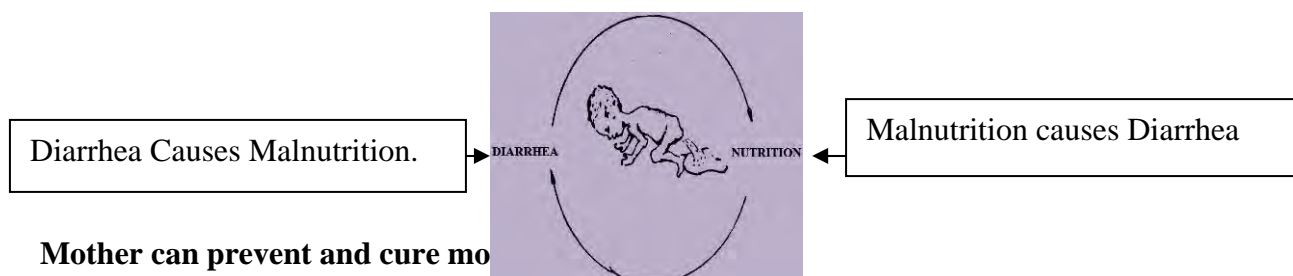
4. **Build latrines** so dogs, pigs and other animals cannot reach the human waste. A deep hole with a simple structure over it works well.



Note: Latrine should be built at least 20 meters from homes or the source of water. If you do not have an out-house, go far away from where people bathe or get drinking water. Teach your children to do the same.

8. DIARRHEA:

Cause of the diarrhea.



Before the Pendebe program started diarrhea was the most common cause of death in villages, especially in small children. Deaths from diarrhea have been more quickly prevented than any other condition and we now know that in villages where there is a Pendebe there should be very few diarrhea deaths. The first thing for Pendebas to concentrate on is simple treatment at home to prevent deaths.

One of the greatest successes from scientific research in the past century was to discover that most cases of diarrhea do not need to be treated by Doctors but get better quickly if treated correctly by the family at home. The human body is over 70 percent water. Babies can **lose so much water from watery stools and vomiting** that the flow of blood slows down and babies die in 2 to 3 days.



EXAMPLE OF DEHYDRATION AND DIARRHEA:

To replace the fluid the best treatment is not intravenous injections, but **giving the right fluids**



by mouth with a cup and spoon. The family should give enough Tsampa **ORT solution to make up whatever is lost**, and continue giving fluid as long as the person will take it, and then frequently try again. Most important is for Pendebas to teach the



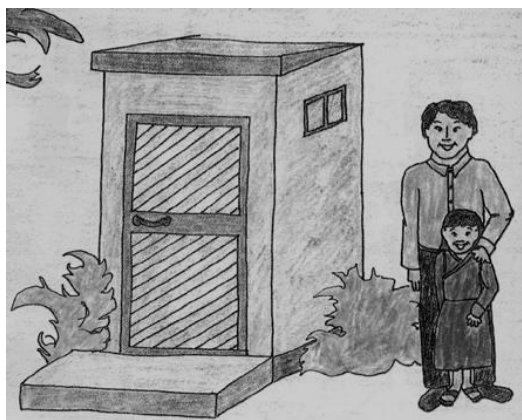
family how to make and **give the right oral rehydration**. New research shows that the best ORT is made from whatever cereal is available in the home, as described below. This actually works better than the WHO/UNICEF (ORS) packets which are used in health centers especially when it is given immediately.

Preventing diarrhea:

Prevention of diarrhea is by **correcting two main causes**: first, spread of infectious germs by lack of cleanliness due to poor hygiene and **sanitation**.

Second, **malnutrition** can be caused by stopping breast feeding, poor nutrition and dietary imbalance. Although diarrhea has many different causes, the most common are infection and poor nutrition. With good hygiene and good food, most diarrheas could be prevented.

First, families can prevent diarrhea by **building latrines** and teaching basic knowledge of

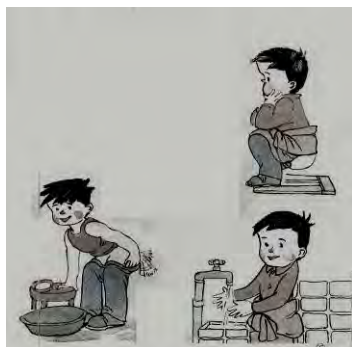


cleanliness. For the second, the children who suffer and die from diarrhea are commonly those who are poorly nourished and their bodies do not have strength to fight infections.

Children who are poorly nourished get diarrhea and die from it far more often than those who are well nourished.

Yet diarrhea often also causes malnutrition. And if malnutrition already exists, diarrhea rapidly makes it worse. This causes a vicious circle or rapid downward spiral, in which each condition makes the other worse. Good nutrition is important in both the prevention and treatment of diarrhea.

Main practices in the home that are important for preventing diarrhea in babies:



Prevention of diarrhea also depends on hygiene, sanitation and cleanliness. Personal and public cleanliness include the use of latrines, clean water, and pure food by protecting foods contamination by dirt and flies.

1). Breast-feed rather than bottle-feeds babies:

Give only breast milk for the first 4-6 months. When milk comes directly from the mother we know it is pure. Breast milk also helps babies resist infections because it carries immunity from the mother. If it is not possible to breast-feed a baby, feed her/him with a cup and spoon. Do not use a baby bottle because it is very difficult to keep clean and very often causes infections. **Breast milk** is the best food for babies and mothers should keep giving breast milk when the baby has diarrhea. It does not cause diarrhea and will help the baby get better quickly.

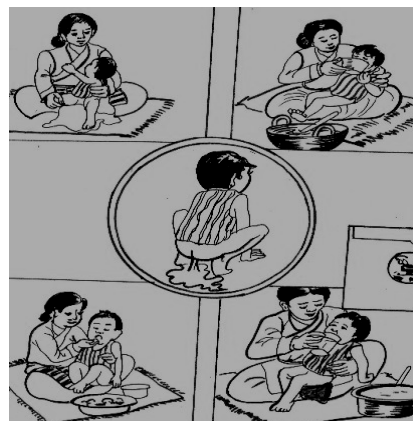


2). Cleanliness:

Keep the baby clean-and in a clean place. Try to keep her/him from putting dirty things in the mouth. Wash her/his hands, cloths and face every day and all the people looking after the baby (sister, brother or grand parents) should be taught to wash their hands. Do not give babies unnecessary medicines.

Treatment of diarrhea:

No medicine is needed for most cases of diarrhea. Even when diarrhea is severe the biggest danger is dehydration or the loss of fluids from the body. If the diarrhea lasts a long time, the danger becomes malnutrition. So the most important part of treatment is to give liquids (Oral Rehydration Treatment “ORT”) and good food. Medicine is needed only with fever or if there is blood or mucus in the stools and these are usually symptoms of dysentery as described below.



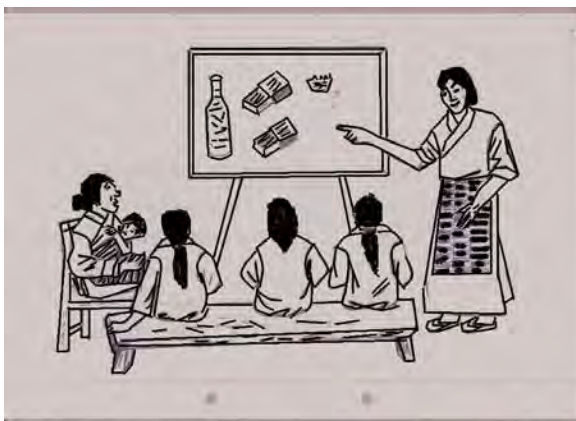
The common practice of stopping food and fluids when a baby has diarrhea is wrong because this may reduce diarrhea but that is only because the baby has lost so much fluid that it may die. No matter what kind of infection is causing diarrhea, always do the following:

A person or baby with watery diarrhea must drink large amount of liquids. If there are signs of dehydration, give ORT (Oral Rehydration Therapy) to Drink. Even when they don't want to drink, gently insist that he/she must do so. Have the person take several swallows every few minutes and especially more after losing more fluids.

HOW TO MAKE CEREAL BASED *ORT*.

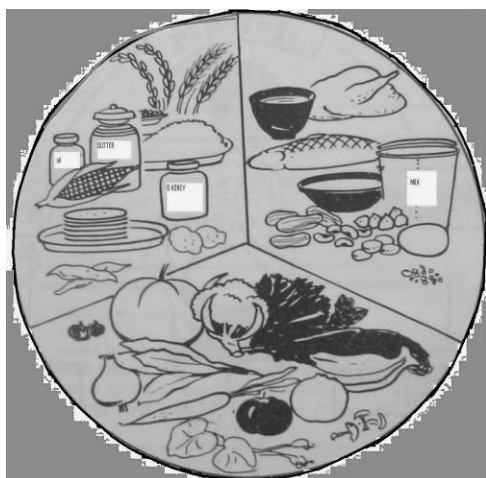
Supplies available in the home:

- 1 liter (or one beer bottle) of boiled water cooled down.
- Two match boxes of Tsampa flour finely ground, or any other flour such as rice or Wheat.
- One cap (or large pinch or half of small spoon) of Salt.



In a clean cup mix Tsampa with water, add a large pinch of salt (what can be picked up by the three fingers and the thumb) and stir until dissolved then pour into a one liter container (beer bottle), fill with water and shake until

dissolved. Feed the child with cup and spoon frequently and try to give as much as there has been fluid lost from the diarrhea or vomiting.



Meet nutritional needs: A person with diarrhea needs food as soon as he/she will eat. A baby with diarrhea should continue breast-feeding. A small or underweight child, or anyone who is thin and weak, should get plenty of nutritionally balanced foods (proteins and energy foods) all the time *he/she has diarrhea*, and especially when they are getting well, to promote catch-up growth. If a child who is underweight has diarrhea that lasts for many days or keeps coming back, *give him more food rich in protein*.



Often no other treatment is needed. A well nourished older child or adult who gets severe acute diarrhea may recover more quickly on only a liquid diet of teas, broth, or ORT drink, but if the diarrhea lasts more than 1 day, he should begin taking food.

Medicines for diarrhea:

For most cases of diarrhea no medicines are needed. But in certain cases, using the right medicine can save life or prevent chronic illness. However, most medicines commonly used for diarrhea do little or no good and are often actually harmful:

When to seek medical help, referral in cases of diarrhea:

Diarrhea or Dysentery with blood or mucus and fever can be very dangerous-especially in small children. In the following situations you should get medical help:

- If diarrhea occurs more than 8-10 times a day or lasts more than 4 days and is not getting better-or more than 1 day in a small child with severe diarrhea.
- If the person is dehydrated and getting worse.
- If the child vomits everything he drinks, or drinks nothing.
- If the child begins to have fits, or if the feet and face swell
- If the person was very sick, weak, or malnourished before the diarrhea began (especially a little child or a very old person)
- If there is blood or mucus in the stools, this can be dangerous even if there is little diarrhea



As Pendebeba (health workers) it is our job to help people understand and do something about as many of these causes as possible. To prevent death from diarrhea will take far more than *latrines*, **pure water**, and *better nutrition*. Family planning and other health knowledge are also important. Since your personal responsibility is improving your community's well being, you must help them learn to share, to work together, to care for each other and to look ahead.



9. PNEUMONIA:

In all poor communities the most common causes of human deaths has been diarrhea and pneumonia among children, diarrhea in the summer and pneumonia in the winter.

Pneumonia is very severe and difficult to control in Tibet

because crowding makes infections spread quickly. Even though Pendevas have made great progress in quickly controlling deaths from diarrhea using Tsampa ORT, they have been less successful in controlling pneumonia. This is mainly because it is harder to diagnose pneumonia in order to quickly give treatment with an effective and safe antibiotic such as Cotrimoxazole (Septra or Bactrim) or Ampicillin.

Background information:

After children are born they must develop immunity to the many germs in the air. Pneumonia in a baby can become very serious quickly and the baby can die in as little as two days.



It is especially difficult to recognize the difference between pneumonia and an ordinary cold or cough since many village children have runny noses and cough most of the time. This is made worse by smoke, dust and cold weather. However an

important discovery was made twenty years ago by Family Health Workers (like Pendevas). A professor in a medical college hospital

was trying to teach the health workers how to use stethoscopes to hear the changed breath sounds

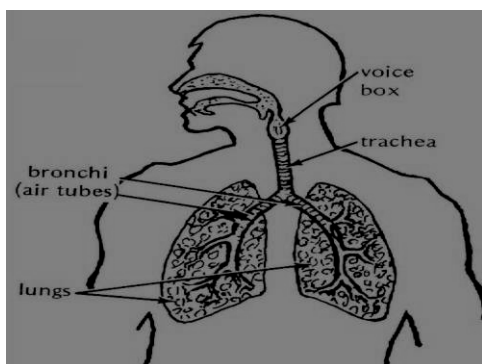
with pneumonia and was also showing them X-rays of babies with pneumonia. They were having trouble

hearing the breath sounds and finally one of the FHWs said, “We don’t want to learn the complicated methods

doctors use. We have found a simple method just by watching carefully the babies whose X-rays show pneumonia. Just watch the babies breathe.” It was true

that they could tell that babies who had pneumonia were

breathing fast and with much difficulty. More research showed that counting the breathing rate was a good way of telling which babies had pneumonia. Those village women made a discovery



that doctors had missed and this method is now recognized around the world as the best way of saving babies lives from this common cause of death.

Diagnosis of Pneumonia in babies:

When infection spreads to become pneumonia the lungs fill up with fluid so that oxygen cannot easily get into the blood and the rest of the body. The baby has to work harder breathing fast. This takes great effort and the spaces between the ribs are sucked in with each breath. The baby's cry is weak and they have trouble sucking for breastfeeding.

The simplest way for health workers to diagnose pneumonia is to count the breathing rate. Pendebas can use a watch to count the number of breaths in a minute or it is simpler to use UNICEF timers that beep after half a minute.

Pneumonia diagnosis.

1. If a baby **under 1 month old** is breathing more than **60 times a minute** that baby should be treated for pneumonia.
2. If a baby from **1 to 11 months old** is breathing more than **50 times a minute** it should be treated for pneumonia.
3. If a baby **more than one year old** is breathing more than **40 times a minute** it should be treated for pneumonia.

The problem is that the first diagnosis must be made in the home by family members so that the baby can be taken to the Pendeba to have the breathing rate checked. Mothers or other family members who must first recognize the fast and difficult breathing. This has been a big problem in Tibet and other poor villages around the world.

A new method is being tried to train mothers

in how to tell when the baby is in trouble. By having mothers in a group practice breathing at fast rates the way sick babies do they can learn that the infection is no longer a cold or cough but pneumonia. If mothers practice breathing 50 times a minute they will get the feel of what to look for in babies. Then, if they think the



baby is breathing fast, they can breathe at the same rate the baby is breathing and remember how that matches the rate that they learned when they practiced fast breathing in the group.

To practice breathing 50 times a minute, a good method is for the Pendeba to demonstrate to a mother's group the stone and string method of timing breaths. It has been found that the number of times a stone tied on the end of a string swings back and forth depends on the length of the string. At the altitude of Tibet if the string is held at a knot tied in the string about one meter from the stone the number of times it swings back and forth will be between 50 and 60 times a minute. The Pendeba can stand in front of a mother's group and get the stone swinging with the string held at the right length from the stone and all the mothers can practice breathing with each swing until they get the habit of knowing what that rate feels like. Going through this kind of practice session before the cold weather of winter each year will help mothers in the village remember the importance of getting help from the Pendeba when a baby has fast breathing.

A young baby may or may not have the usual fever or cough with pneumonia but fast and difficult breathing is the sign to watch for. In an older child or adult there is almost always fever and the sputum becomes yellow or greenish and the person looks obviously sick.

Getting treatment started quickly with an antibiotic:

Once the diagnosis of pneumonia has been made by counting the breathing rate treatment should be started quickly because the baby can die in just two days. Older people can also die quickly and pneumonia is often a complication of other sicknesses such as measles.

Cotrimoxazole (Septrim or Bactrim) The easiest medicine to give a baby under 1 year of age is cotrimoxazole syrup ½ teaspoon, or 1/4 a tablet crushed in water in a spoon, twice a day. (Each tablet has 400 mg. of sulfmethoxazole and 40 mg. of trimethoprim)

1. For a child 1 to 3 years of age, 1 teaspoon of syrup or 1/2 tablet twice a day.
2. For an older child, 2 teaspoons of syrup or 1 tablet twice a day.
3. For adults or children over 12 years, 4 teaspoons of syrup or 2 tablets twice a day.

It is very important that the patient drink lots of water or other fluids. If the baby develops a rash or skin problems be sure to stop cotrimoxazole right away. Cotrimoxazole is also good for other bacterial infections. Ampicillin is a type of penicillin that treats many kinds of bacteria, but it is more expensive than penicillin which is also effective against the common types of pneumonia. Ampicillin is especially useful and safe in small babies. For children under 3 years of age ¼

capsule or ½ teaspoon of syrup. (1 capsule has 250 mg. and 1 teaspoon of syrup has 125 mg.) Give 4 times a day. For children 3 to 7 years of age double that dose and for children 8 to 12 again double the dose, given 4 times a day. For adults give 2 capsules 4 times a day. For very sick patients injections may be needed and it will be necessary for the Pendebeba to get the patient to the Xiang clinic for more intensive antibiotic treatment.

Prevention of Pneumonia and Care for Common Respiratory Infections:

Colds are among the most common infections and severe upper respiratory infections such as flu and cough can cause much loss of time from work or school. They almost always get better but some simple methods can help reduce symptoms. People should not use antibiotics or injections for colds or simple cough because these viruses or other germs cannot be killed by such treatment. The bacteria that cause pneumonia quickly develops resistance to antibiotics so they lose their effectiveness. In children and old people it is especially important to look for the fast breathing that could show the start of pneumonia.

Prevention of colds and cough:

The body normally has good resistance to infections after the person has once had the illness and developed immunity. New infections come from other people who sneeze or cough into the air you breathe. The viruses that cause most colds and cough often change their antigens (molecules that produce immunity) and then can infect people who are immune to previous strains. To prevent spread any person with the infection should cover the mouth and nose when coughing or sneezing and keep away from other people, especially children.

Especially important in preventing these infections is general resistance from healthy living. This includes good nutrition, getting regular sleep and exercise.

Treatment of colds and cough:

Most respiratory infections clear up in a few days and require no special treatment. If symptoms become severe or last more than a week there are simple ways of making the person more comfortable. Most important is to get rest and not spread it to others. Drink plenty of fluids.

A runny nose is common in many children but they should be encouraged to wipe away the mucus but not blow the nose hard because this may spread the infection to the ears or the

sinuses. If a person often gets ear or sinus infections it may be good to use decongestant nose drops a few times but for only a few days.

For a severe cough there are many medicines, but do not use antibiotics. Coughing is the way the body gets rid of anything that will interfere with breathing so it is important to not just stop the coughing but instead to care for what needs to be brought up. Usually this is mucus or sputum and it is especially important to drink plenty of fluids, simple liquids that help loosen mucus like honey and lemon juice, and breathing steam from a boiling kettle.

If the cough keeps coming back then it is very important to find out the cause. The most important disease to look for is **tuberculosis**, which occurs mostly in young adults and tends to spread in families from exposure to coughing and spitting the tuberculosis bacteria. The person loses weight and has night sweats. The diagnosis becomes most evident when there is bright, red blood in the sputum. The person should quickly be taken for complete medical diagnosis to start the very effective multiple drug treatment, which is part of government programs. The whole treatment schedule must be completed because if the patient just stops when he/she feels better the infection will come back with bacteria that are now resistant to the medicines and can't be treated easily.

Another illness that is common in Tibet is chronic cough or emphysema caused by smoking. Over time smoking causes the lungs to turn black and the normal function of getting oxygen to the blood is stopped by scar tissue. In addition to chronic and severe coughing the person has more and more trouble getting enough oxygen and loses strength and the ability to work. The treatment is to stop smoking before the symptoms become severe or never to start.

If there is an allergy or sensitivity that causes wheezing with each breathe (asthma), or allergic running nose, then a special asthma medicine antihistamine should be taken. Each of these problems is caused by sensitivity to something in the environment. By watching to see what the person has been exposed to before the symptoms start the sickness can be prevented by stopping that exposure. A very severe attack of allergy may require injection of a drug such as adrenaline or other medicine.

10. TUBERCULOSIS (TB):

TB is a dangerous and serious disease, which needs special medical care and prevention. Tuberculosis is a major problems in Tibet but it can be controlled. Pendebas, mothers, health workers, village leaders and government hospitals should work as a team with good communication and support.

Tuberculosis of **lungs is a chronic disease** caused by exposure to an active case. Infection usually occurs in childhood but major symptoms start between 15 and 35 years of age-especially in persons who are poorly nourished, or living with someone who has the disease.



Tuberculosis is curable. Both for prevention and cure, it is very important to treat tuberculosis early. Therefore, you should know the signs of tuberculosis.

Most frequent signs of TB:

1. **Chronic cough**, especially just after waking up.
Mild fever in the afternoon and sweating at night.
2. Chronic **loss of weight** and increasing weakness.



3. Coughing up blood (usually a little, but in some cases a lot).

Tuberculosis occurs usually in the lungs. It can affect any part of the body especially in the bones or skin. In young children it may cause meningitis or infection of the brain.

At the first sign of tuberculosis a patient should go to a health center for a **skin test, a Sputum test, an X-ray**, and examination. You will probably be given 2

or 3 types of medicines. It is very important to take the medicines as directed. At least 2 must be taken at the same time. The best result is with DOT (Directly observed Treatment) a WHO program where a health worker or Pendeba reminds the patient to take the medicines and actually watches him take the pills. They must take the full course of medicines until they are cured. The patient must not stop



taking the medicines just because he feels better because this causes the bacteria to develop resistance and become very hard to treat. To cure tuberculosis completely usually takes from 6 months to 2 years.

Food or diet is important for TB patients: Plenty of foods rich in proteins and vitamins, as well



as energy foods are needed. Rest is important too. You should stop working until you get better. Try

not to work so hard that you become tired or breathe with difficulty.

Get enough rest and sleep.

Tuberculosis in any other part of the body is treated the same as TB of the lungs. For children with severe tuberculosis of the backbone,

surgery may be needed to prevent paralysis.

Tuberculosis is very contagious. A person who lives in the same house with someone who has TB, especially children, run a great risk of catching the disease. If someone in the house has TB:



1. Try to, see that the whole family is tested for TB.

2. Have the children **vaccinated against TB.**



3. Everyone, especially the children, should eat plenty of nutritious food.



4. The person who has TB should eat and sleep separately from children, if possible in a different room, as long as he has any cough at all.

5. A person with TB should be careful to cover his mouth when coughing and should never spit on the floor.
6. Take a child to a health center at the first suspicion of TB or if he gets a cough that lasts more than 2 weeks.

11. NUTRITION:

Many health problems are caused by not eating the right amount of the right foods.



To eat right means first of all to eat enough food but not too much. It also means to eat a balance of the different kinds of foods the body needs. A person needs to eat enough food from each of four food groups:

1. Carbohydrates/starch or sugar, proteins,

2. Fats, and

3. vitamins/minerals. Many people get large amounts of

starchy or energy foods like barley, wheat, oats, cassava, or plantain, and some people eat a lot of fat but not enough bodybuilding and protective foods like beans, nuts, eggs, meat, fish, dark green leafy vegetables, and fruit. People can be malnourished even though they eat a lot of starchy or fatty foods. Malnutrition is often most severe in children, who need lots of nutritious food including proteins and vitamins to grow well and stay healthy.

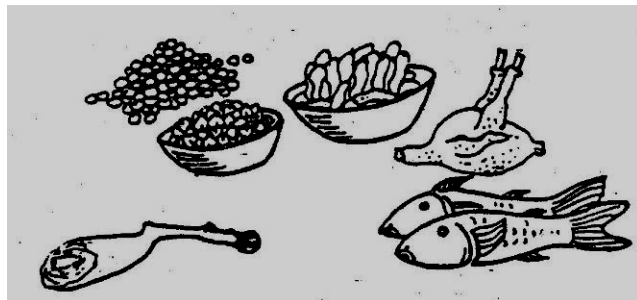
Malnourished Children: 1. Failure of a child to grow or gain weight normally. 2. Slowness in



walking, talking, playing or thinking. 3. Swollen bellies, thin arms and legs and swelling of feet, face, and hands, often with sores or marks on the skin. 4. A child who is sad and not active. 5. Loss of hair and yellow color. 6. Dryness of eyes, night blindness. 7. Bleeding or redness of the gums. 8 Anemia in both children and adults, not eating right may weaken the body's ability to resist infections: Especially severe diarrhea, measles, and tuberculosis. In adults, cirrhosis of the liver

caused by drinking too much alcohol is much more serious in persons who are not eating right. During and after any sickness, it is very important to eat lots of nutritious food for catch up growth. Every day we should eat something from each of the following four food groups:

Bodybuilding Foods or Proteins: Proteins are bodybuilding foods. They are necessary not only for proper growth, but also for making healthy muscles, brains and other parts of our bodies. To grow and be strong everyone should eat enough protein everyday.



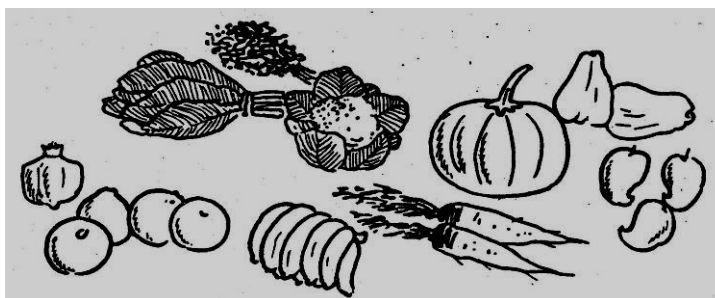
Energy Foods or Carbohydrates: The harder a person works, the more energy foods he needs. But a diet of these foods alone, without proteins, makes our bodies weak.



Energy Storage Foods: Fats and Oils: Fat is a concentrated form of stored energy. Our bodies change fat into sugar when more energy is needed. To eat a lot of fat can be harmful when a person becomes too fat, but eating some fat or oil each day is healthy and the most concentrated form of energy.

Protective foods high in vitamins and minerals:

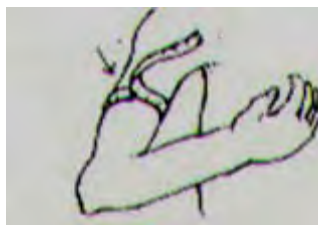
Fruit such as, green and leafy vegetables, carrots and many yellow vegetables and fruit, meat especially liver, milk, eggs.



Checking for malnutrition: to see if a child has malnutrition the easiest way is **Mid Arm Circumference**: from 1 to 3 year of age, any child whose upper



arm measures less than 13 cm. is malnourished – no matter how ‘fat’ his feet, hands and face may look. If the arm measures less than



12 cm., he is severely malnourished. Another good way is to **measure weight** and height once a month. A healthy, well-nourished child gains weight and grows regularly and this can be marked on a growth chart with a curve that increases rapidly in

the first year and then slows gradually through childhood. A third way of telling whether a child is malnourished is to record when certain kinds of activity occur. Such as: holding up the head, sitting up, crawling, standing, walking, talking and tests of mental activity.

It is very important that children eat at least 3 times a day, and also snacks between meals. Mixing a little vegetable oil with a child’s food also helps. Whenever possible he should eat foods that are not loaded with sugar or salt just to make food taste good.



Early prevention and treatment of malnutrition:

For babies, breast milk is the best complete food. Breast-feeding should be continued as long as possible. Some mothers’ breast-feed their babies for 2 years or longer and this is good. After 4 to 6 months the baby should begin to get other nutritious foods in addition to breast milk. Powdered nonfat milk, if available, often works well. It should be mixed with a small amount of honey or sugar and cooking oil if the child is not getting enough energy foods. Eggs, chicken, meat, and fish are high in protein, but

expensive. Beans, peas, lentils, and groundnuts (peanuts) also have protein, and are cheaper.

To be easily digested, the beans should have their skins peeled off and be well cooked and mashed. Soybeans are very high in protein, and flour made from them can be mixed with other foods such as rice, wheat, peanuts, or sesame to increase the protein content. Breast milk is better than any baby food or formula you can buy. Give the baby only breast milk during the first 5 to 6 months. Breast-feeding is not only best for the baby, it saves money.



If the mother's breasts do not make enough milk:

1. The mother should drink a lot of water or other liquids such as Tsamthuk and butter tea that has little salt. The more liquid she drinks the more milk she will produce.
2. The mother should eat better foods with proteins and vitamins such as beans, dark green leafy vegetables; milk, cheese, and eggs-will help her make more milk for her baby.
3. Let the baby suck her breasts often. Sometimes her breasts will begin to make milk.
4. If these methods do not work, give the baby some other type of milk-like cow's milk, goat's milk, or powdered milk, but do not start these too soon because then the baby will not suck hard. When another type of milk is used, some boiled water should be added. Always boil both milk and water.
5. It is safer to feed the baby with a cup and spoon than to use a baby bottle. Baby bottles and nipples are very difficult to keep clean and cause many infections, including diarrhea. If a bottle is used, both it and the nipple should be boiled each time before the baby is fed.
6. When there is not enough money to buy special milk for the child, it also works well to make soft porridge from Tsampa or other cereal. Always add sources of protein, vitamins and minerals such as: skinned beans, eggs, meat, chicken, or other protein and a concentrated energy source such as oil. These should be well mashed, mixed and given with a cup and spoon.



From 5 months to 1 year of age:

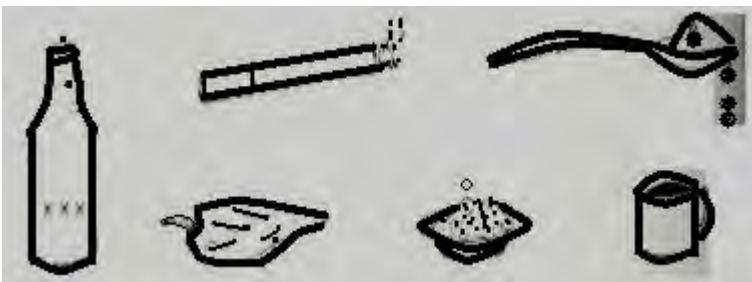
1. Continue to give the baby breast milk, if possible until he reaches 2 years of age. 2. When the baby is between 5 and 6 months old, start giving him other foods as well. These weaning foods need to be well cooked and mashed. Inexpensive, nutritious weaning foods can be made by combining at least one food from each group.

<i>Animal Protein</i>	<i>Vegetable Protein</i>	<i>Carbohydrates</i>	<i>Fats</i>
<ul style="list-style-type: none"> • Milk • Eggs • Meat • Chicken • Cheese • Fish 	<ul style="list-style-type: none"> • Beans • Lentils or peas • Groundnuts (peanuts) • Soybeans • Nuts • Dark green leafy vegetable 	<ul style="list-style-type: none"> • Tsampa, Wheat or Oats • Cooked Potato • Rice • Noodles • Squash 	<ul style="list-style-type: none"> • Any local cooking oil • Butter

Foods we do not need to avoid and some that we should avoid:

A lot of people believe that there are certain foods that they should not eat when they are sick. They may think of some kinds of foods as 'hot' and others as 'cold'. They do not take hot foods for 'hot' sickness or cold foods for 'cold' sickness. Or they may believe that many different foods are bad for a mother with a newborn child. There is no scientific evidence to support these beliefs. A sick person has even greater need for bodybuilding foods than a healthy person. The things that harm us when we are healthy do us even more harms when we are sick.

Avoid these things: 1. Alcohol causes or makes worse diseases of the liver, stomach, and



nerves. It also causes social problems. 2. Smoking can cause chronic (long-term) coughing or lung cancer, other cancer and problems of the heart and circulation. Smoking is especially

bad for people with lung diseases like tuberculosis, asthma, and bronchitis. 3. Too much greasy food, hot spices, or coffee can make stomach ulcers worse. 4. Too much sugar and sweets spoils

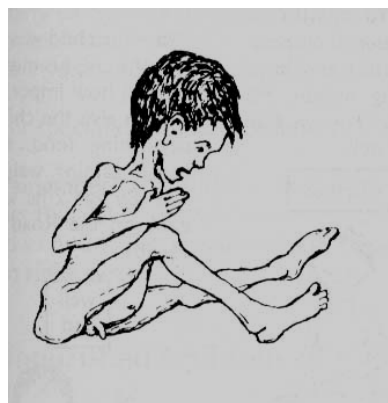
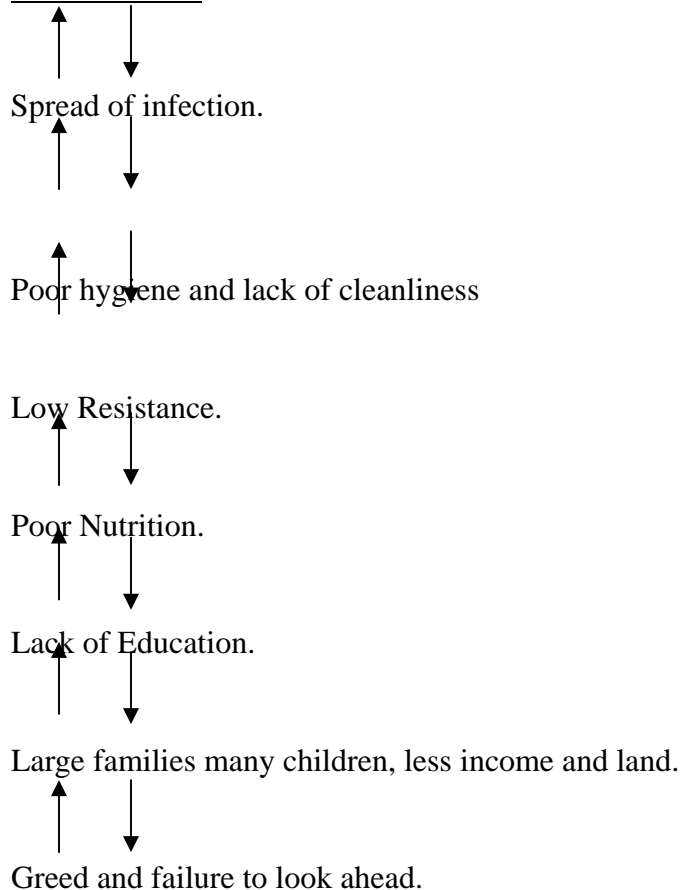
the appetite, rots the teeth, can cause heart problems. 5. Eating too much oil or fat and becoming fat is bad for general health and heart diseases. A few diseases require not eating certain foods. For example, people with high blood pressure, certain heart problems, or swollen feet should use little or no salt. Diabetes also requires special diet to control sugar and carbohydrates.

NUTRITION CYCLE vs DIARRHEA CYCLE.

Causes of Child Death (adult too).

The Chain of causes leading to death

From diarrhea.



VITAMINS:

Vitamins are protective foods. They help our bodies work properly by providing essential chemicals for certain functions. Minerals are needed for building healthy blood, bones, and teeth.

Foods rich in Vitamins and Minerals: 1. Meat (especially liver). 2. Chicken. 3. Eggs. 4. Fish (and fish liver oil for vitamin A). 5. Cheese. 6. Milk. 7. Vegetables (especially dark green and yellow ones). 8. Fruits. 9. Whole grain cereals. 10 Iodinated salt, seaweed also has iodine.

How to get vitamins: Anyone who eats well gets all the vitamins the body needs. It is always better to eat a complete diet than to buy vitamin pills, injections, syrups, or tonics. The nutritious foods may be scarce or expensive and a person who is already poorly nourished, should eat well and also take vitamins. In almost all-cases vitamins taken by mouth are best, cost less, and are not dangerous. Do not inject vitamins!

Many people eat a lot of starchy food, or carbohydrates, and not enough foods rich in protein,



vitamins, and minerals. People who can afford to buy the foods people think of a being 'better' or more popular, especially animal protein like milk and meat, do not usually get as nutritious diet as those who eat simple and less expensive food. In fact, a poor family can usually get good nutrition if they grow or buy plant foods high in protein, like beans, peas, lentils, groundnuts, and dark green leafy vegetables, rather than expensive foods like meat and fish. It

is wise for everyone but especially for a child to eat a variety of proteins. This is because plants high in protein often do not have all of the vitamins and proteins the body needs. Different plants supply the body with different proteins, vitamins, and minerals. Tsampa is good because it has both starch come protein and minerals. Specific illness caused by lack of vitamins and minerals. Many sicknesses result when certain vitamins and minerals are missing from the foods people eat. For example:

1. Young children and women who eat no yellow or dark green fruits and vegetables, or other foods rich in vitamin A may develop night blindness, dry eye, and eventually go blind. Mothers and children them die because they are more susceptible to infections.
2. Children who do not drink milk and whose skin is almost never exposed to the sunlight may become bowlegged and develop other bone deformities (rickets). While this problem can be corrected by giving the child milk and vitamin D (found in fish liver oil), the easiest and

cheapest form of prevention and treatment is to be sure sunlight reaches the child's skin because then the skin makes its own Vitamin D.

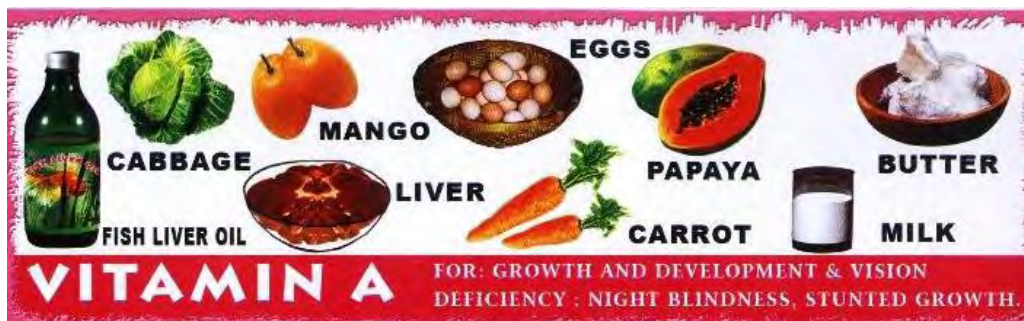
3. Persons who do not eat enough foods with iron, such as eggs, dark green leafy vegetables, or meat, may develop anemia, especially women during pregnancy.
4. A number of skin problems, sores on the lips and mouth, or bleeding gums may come from not eating fruits, vegetables, and other foods containing certain vitamins such as Vitamin C and vitamin.

Low cost sources of proteins, vitamins, and minerals.

1. **Eggs and chicken:** Eggs are often cheap and can be mixed with foods given to babies who cannot get breast milk. Eggshell, ground up and mixed with food, can provide calcium for pregnant women.
2. **Beans and other legumes** (peas, lentils, etc). are good cheap sources of protein, especially **soybeans**. If allowed to sprout before cooking and eating, they are higher in vitamins. Baby food can be made from beans by cooking them well, peeling off their skins, and mashing them. Beans, peas, and other legumes are not only a low-cost form of protein but also growing these crops makes the soil richer so that other crops will grow better.
3. **Dark green leafy vegetables** have protein, iron, and a lot of vitamins A and C. The leaves of sweet potatoes, beans and peas, pumpkins and squash are especially nutritious. They can be dried, powdered, and mixed with babies' weaning food to add protein and vitamin content.
4. **Many wild fruit and berries** are rich in vitamin C as well as natural sugars. They can provide a good vitamin and food supplement.
5. **Cooking in iron pots** or putting a piece of old, iron or horseshoe in the pan when cooking beans and other foods adds iron to food and helps prevent anemia.

NIGHT BLINDNESS. (VITAMIN A DEFICIENCY):

Many people suffer from night blindness in Tibet. It is caused by **Vitamin A deficiency**. It can be prevented by eating enough green vegetables and Pendebas can teach mothers



how to prevent the problem.

Signs:

- At first, when the child or women who has night blindness, cannot see as well in the dark as other people can.
- Later, he develops dry eyes (called xerosis). The white of the eyes loses its shine and begins to wrinkle and white patches appear.
- As the diseases gets worse, the cornea also becomes dry and dull, and may develop little pits and then the cornea may quickly becomes soft, bulge, or even burst. Blindness may result from infection, scarring, or other damage.
- Xerosis often begins, or gets worse, when a child is sick with another illness such diarrhea, measles, whooping cough, or tuberculosis. Examine the eyes of all sick and underweight children.

Prevention and treatment:

Xerosis can easily be prevented by eating foods that contain vitamin A, including the following:

- Breast-feed the baby.
- After the first 6 months, begin giving the child foods rich in vitamin A, such as dark green leafy vegetables and yellow or red fruits and vegetables. Whole milk, egg, liver, and kidneys are also rich in vitamin A.
- A sure way is to give a capsule of vitamin A once every 6 months. Do not give to babies under 6 months of age.

Anemia: People with anemia do not have enough iron in their red cells. This happens when blood is lost or destroyed faster than the body can replace it. Anemia is most common in women because of their monthly bleeding (menstrual period), when they do not get the foods, their

other
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in



bodies need. A diet lacking meat, dark green leafy vegetables, and foods rich in iron can cause anemia or make it worse. In children anemia can come from not eating foods rich in iron. Severe anemia children is also caused by hookworm infection, chronic diarrhea, dysentery and malaria.

The signs of anemia are: 1. Pale or transparent skin, Pale insides of eyelids, Pale gums and tongue and fingernails. 2. If the anemia is very severe, the face and feet may be swollen, the heartbeat rapid, and the person may have shortness of breath.

Treatment and prevention of anemia: Eat foods rich in iron. Liver is especially high. Dark green leafy vegetables, beans peas, and lentils also have some iron. If the anemia is severe, the person should take iron (ferrous sulfate pills) preferably with the vitamin B folic acid. This is especially important and should be given by mouth, not injected, because iron injections are hard to absorb. If the anemia is caused by dysentery (diarrhea with blood), hookworm or another infection, this should also be treated. 4. If the anemia is severe or does not get better, seek medical help. This is especially important for a pregnant woman. Anemic women run a greater risk of miscarriage and of dangerous bleeding in childbirth. Family planning-allowing 2 to 3 years between pregnancies lets the woman regain strength and make new blood.

12. SPECIFIC CARE OF PREGNANT MOTHER AND DELIVERY PROCESS.

CHECK BABY'S HEARTBEAT.

After 5 months, listen for the baby's heartbeat and check for movement.

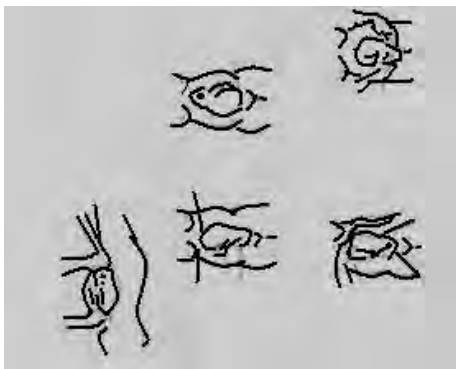
1. If the baby's heartbeat is heard loudest below the navel in the last month, the baby is head down and will probably be born head first.



2. If the baby's heartbeat is heard loudest above the navel, his head is probably up. It may be a breech birth or feet first and delivery will probably be more difficult.
3. Count the baby's heartbeats.

- From 120 to 160 per minute is normal.
- If less than 120, something is probably wrong.

CHECKING IF THE BABY IS A GOOD POSITION.



To make sure baby is head down, in the normal position for birth. See picture feel for head like this:

1. The baby's buttocks or butt is larger and wider.
2. Head is hard and round.

CARE OF THE BABY AT BIRTH.

1. Immediately after the baby comes out:



- Put the baby's head down so that the mucus comes out of his mouth and throat. Keep it this way until he begins to breathe.
- If the baby has not begun to breathe within one minute

after birth, start mouth to mouth breathing at once.

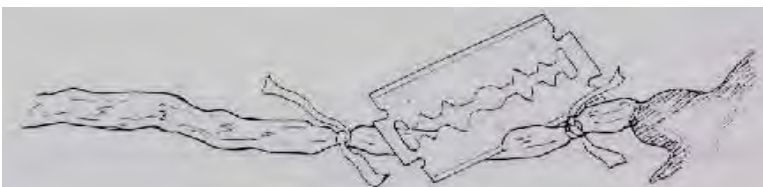
- Wrap the baby in a clean cloth. It is very important not to let him get cold.
- Keep the baby below the level of mother until the cord is tied. This way baby gets more blood and will be stronger.

HOW TO CUT THE CORD.

1. When the child is born, the cord pulses and is fat and blue. Wait!



2. After a while, the cord becomes thin and white.
3. Now tie it in 2 places with very clean, dry strips of cloth.
4. Cut between the ties, see picture, like this.

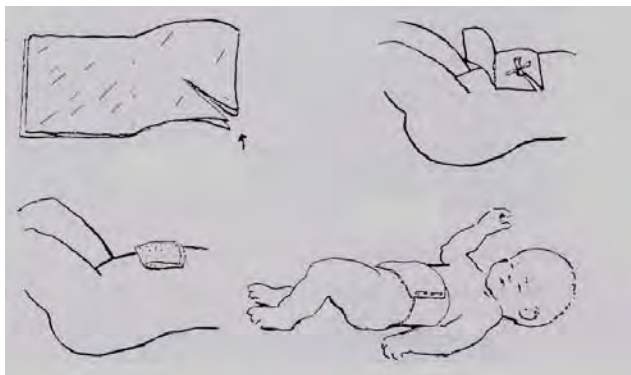


IMPORTANT:

1. Cut the cord with a clean, unused razor blade.
2. If you do not have a new razor blade, use freshly boiled scissors.
3. Wash your hands very well before touching the baby or cutting cord.
4. Always cut the cord about 2-3 finger width close to the body of the newborn baby.
5. Leave only about 2 centimeters attached to the body. These precautions help prevent tetanus.

CARE OF THE CUT CORD.

1. The most important way to protect from infection is to keep the stump dry.
2. Keep it clean and with air, but prevent exposing to dust and flies.
3. Best dressing is to use sterile gauze cut it with boiled scissor and put it on like this see picture.
4. If you do not have sterile gauze, you can use very clean, thin and light cloth.



5. Be sure it is loose enough to let air in under it, to keep the navel dry.
6. Be sure the baby's diaper should not cover the navel, so that the cord do not get wet with urine.

CLEANING THE NEWBORN BABY.

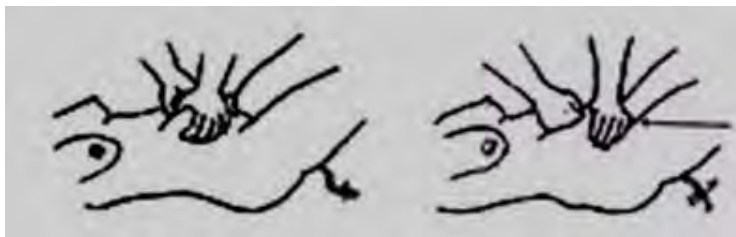
1. Gently clean away any blood or fluid with a warm and soft cloths.
2. Better not bathe the baby until after the cord drops off. (Around 5-8 days). Then bath daily in warm water.

THE DELIVERY OF THE PLACENTA.

1. Normally, the **placenta** comes out 5 minutes to an hour after the baby is born. But sometimes it is delayed for many hours.
2. When the placenta is delayed in coming, if the mother is not losing much bleed, do nothing.
3. If mother is losing blood, do following:



- **Massage** the womb carefully, until it gets hard.
- **Push downward** on the top of the womb very carefully, while supporting the bottom of the womb like this.



4. Check the placenta after comes out. If there seem to be pieces missing, get medical help. It can cause continue bleeding if missed pieces of placenta are still inside.

THE DIET OF MOTHERS AFTER GIVING BIRTH:

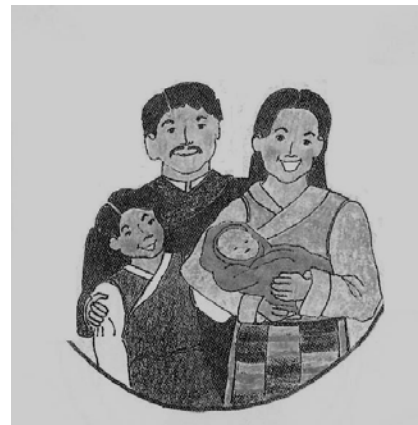
1. In many areas there is a dangerous popular belief that a woman who is pregnant or has just had a baby should not eat certain foods. The new mother needs the most nutritious foods possible. If she eat little more than wheat products, noodles, or soup then the mother will get weak and anemic and will be able to do the hard work of labor. If she gets tired and labor stops just let her rest, give her whatever she wants to drink or eat. Then her labor will start up again.
2. To fight infections or bleeding, a new mother should eat plenty of bodybuilding foods like beans, eggs, chicken, milk products, meat, fish, fruits, and vegetables. None of these foods will harm her: all bring better health to the baby too.

3. One of the worst things a mother can do for the health of the baby is to smoke or use alcohol because these can directly produce low birth weight and poor development of the child.

13. FAMILY PLANNING IMPROVES THE LIFE OF THE WHOLE FAMILY:

Some parents want many children, especially when many children are dying and parents feel that they need more to help with work and to be sure some remain to provide care as they grow old. However, many mothers and fathers now realize that a large family may cause problems, especially when fewer children are dying as diseases are prevented. Some problems are:

1. With many children it is harder to feed, clothe, and educate them well.
2. When a mother has repeated pregnancies, without spacing between them, she becomes weak and babies are more likely to die. Also, she may die in childbirth, leaving many motherless children.
3. If each family has many children, there may not be enough land for all of them to grow food. The situation will get better only when people-as individuals, as families, and as communities understand that it is better to just have the number of children they can care for properly.



When parents decide when and how many children they want, they can choose one of several methods of birth control.

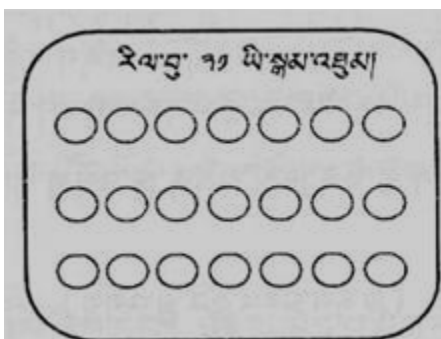
In many places women who get pregnant when they do not want a child can go for an abortion. Abortions are safe when done in health centers under sanitary conditions. But where women get abortions illegally and secretly, often in dirty conditions and performed by unskilled persons many women die. If women use birth control methods wisely, most abortions would not be necessary. Much needless suffering and death could prevent.

Safety: Especially after a woman has had many children. The risk of serious complications or death from pregnancy is many times greater than the risks from any of the common methods of birth control.

Each method of birth control works better for some people than others. Differences in effectiveness, safety, convenience, availability, and **cost** should be considered. Husbands and wives should decide together, and share the responsibility.

Birth control pills: When taken correctly, the ‘pill’ is one of the most effective methods for avoiding pregnancy. The pills usually come in packets of tablets. The amount of medicine differs in different brands.

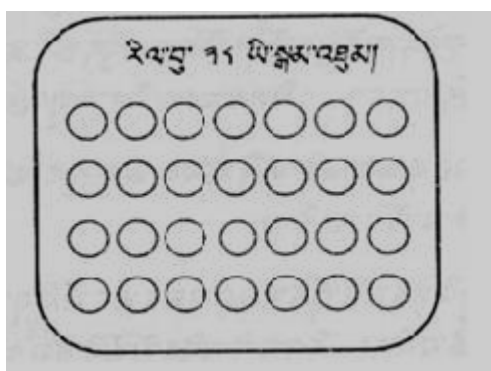
How to take the pills-packet of 21: Take the first pill on the fifth day from the beginning of your period, counting the first day of the period as day 1.



Then take 1 pill every day until the packet is finished. After finishing the packet, wait 7 days and then begin another packet, 1 pill each day. This way, you will take the pills for 3 weeks out of each month, then go 1 week without taking any. Normally, the menstrual period will come during the week the pill is not taken. Even if the

period does not come, start the new packet 7 days after finishing the last one. It is important to take the pills as directed – 1 everyday. If you forget to take the pill one-day, take 2 the next day.

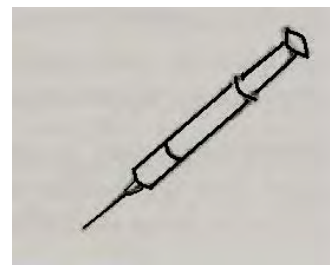
Packet of 28 pills: Take the first pill on the fifth day of the period. Take 1 each day. Seven of the pills will probably be a different size and color. Take these pills last (one a day) after the



others. The day after you finish the packet of 28, start another packet. Take 1 a day without ever missing a day, packet after packet, for as long as you want not to become pregnant. No special diet must be followed when taking the pill. Even if you happen to get sick with a cold or something else while taking birth control pills, go right on taking them. If you stop taking the pills before the packet is used up, you may become pregnant.

Other methods of birth control:

Injections: There are special injections to prevent pregnancy. *Depo-Provera* is an injection that is usually given every 3 months. Generally these methods are used by women who will never want more children. Side effects and precautions are similar to those for birth control pills. Injections are useful for women who have trouble remembering to take pills or for other reasons have difficulty taking them.



Intrauterine device (IUD): This is a plastic (or sometimes metal) specially shaped object that a trained health worker or midwife places inside the womb. While in the womb, it prevents pregnancy. IUDs fall out of some women. In others they cause pain, discomfort, and sometimes serious problems such as bleeding. For most women they give no trouble at all and save the bother of remembering to take pills. For these women, the IUD may be the simplest and most economical method.



The condom: A narrow rubber or latex bag that the man wears on his penis while having sex. Usually it works well to prevent pregnancy. It also helps prevent spreading of venereal diseases or HIV/AIDS, but it is not a complete safeguard. One can buy condoms in pharmacies or get them from health centers.



Natural methods: There are many methods that need no special medicine or device but they are less effective unless very carefully practiced. Mostly they use some form of special timing to know what days a woman is most likely to get pregnant.

Methods for those who never want to have more children:

Sterilization: For those who never want to have more children, there are fairly safe, simple operations for both men and women. These operations are free. Ask at the health center.

1. For men, the operation is called a vasectomy. It can be done in health center. Small cuts are made so that the tubes from a

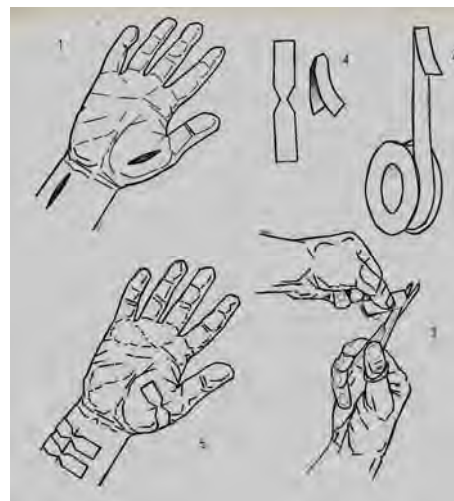


man's testicles are cut and tied. The operation has no effect on the man's sexual ability or pleasure. 2. For women, the operation is called a tube ligation, Which means to tie the tubes leading to the womb. It can be done simply and quickly, and usually without putting the woman to sleep. This operation has no effect on the women's menstrual periods or sexual ability, and may make having sex more pleasant because she does not have to worry about becoming pregnant.

Breast-feeding: While a woman is breast feeding her baby she is less likely to become pregnant- especially when breast milk is the only food her baby receives. The chance of her becoming pregnant is much greater after 4 to 6 months, when the baby begins to get other foods in addition to breast milk. To be more sure she will not become pregnant, the mother who is breast-feeding should begins some method of birth control (but not pills or Depo-provera) when the baby is 3 to 4 months old.

14. FIRST AID (EMERGENCY CARE):

First aid provides early care and safeguard patients from risks in emergencies. It is especially important in rural area where there is no health center and workers. Also important is to know how to care for patients before and as they are taken to the health center or hospital. Pendebeba can be very important person such situation by giving immediate support, first aid can save many people's lives and help patients so they do not have to go to the health center or hospital for simple health problems where they spend a lot of money for unnecessary medicine and injections. Therefore, Pendebebas and mothers should learn first aid to help many village people.

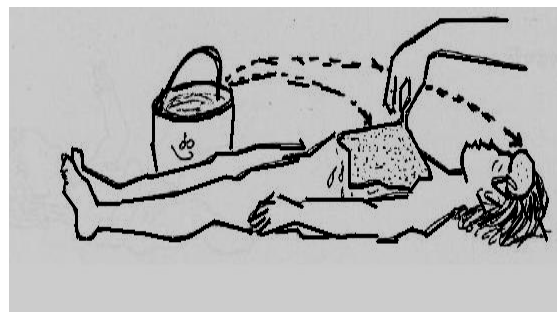


- **FEVER:**

When a person's body temperature is high, we say he has fever. Fever itself is not a sickness, but a sign caused by many different sicknesses. However, very high fever can be dangerous, especially in a small child and should be treated as an emergency.

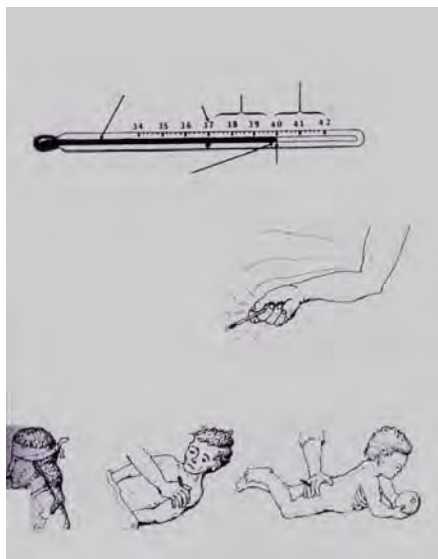
When a person has a fever:

1. Uncover him, except when the room is very cold. Small children should be undressed until the fever goes down. Never wrap a child with fiver in clothing or blankets. Fresh air or a breeze will not harm a person with fever. On the contrary, a fresh breeze helps lower the fever.
2. Aspirin can helps lower fever. Small children can be given either acetaminophen (paracetamol), children's aspirin, or one fourth of a regular 5-grain (300 mg.) aspirin tablet.
3. Anyone who has a fever should drink lots of water, juices, or other liquids. For small children, especially babies, drinking water should be boiled first (and then cooled).
4. Try to find and treat the cause of the fever and treat that.



Very High Fever

A very high fever can be very dangerous if it is not brought down quickly, especially for a small child. It can cause fits (convulsions) or even permanent brain damage (paralysis, mental, slowness, etc). When a fever goes very high, it must be lowered at once:



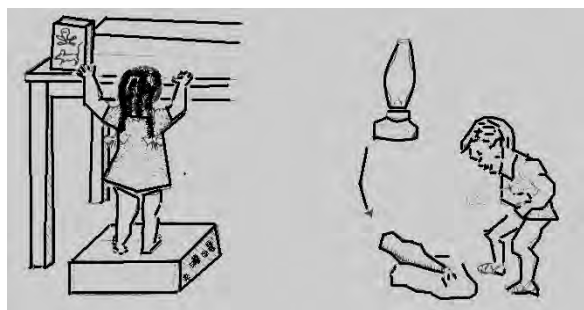
1. Strip the person naked.
2. Fan the child to have air flow around the body.
3. Put cloths soaked in cool water on his chest and forehead or wrap the child in a wet sheet. Fan the cloths and change them often to keep them cool. Continue to do this until the fever goes down (below 38°) .
4. Give him plenty of cool water to drink.

5. Give a medicine to bring down fever. Aspirin or other medicine used locally.

Dosage using 300 mg.

Age	Dosage	Remarks
Over 12 years	2 tablets every 4 hours	
6 to 12 years	1 tablets every 4 hours	
3 to 6 years	½ tablets every 4 hours	
Under 3 years	¼ every 4 hours	If the child cannot swallow aspirin, grin it up and mix with water.

• **OISONING:**



Many children die from swallowing things that are poisonous or dangerous. To protect your children, take the following precautions:

1. Keep all poisons out of reach of children such as:
 - Rat poison or insecticides.

- Medicines (any kind that is dangerous)
- Bleach and detergents

- Cigarettes
- Certain kinds of alcohol.
- Poisonous leaves, seeds, or berries
- Matches, Kerosene, gasoline, petrol

Treatment:

If you suspect poisoning, do the following **immediately**:

1. Do not make a person vomit if he has swallowed kerosene, gasoline (petrol), or strong acids or corrosive substances. Cover the person if he feels cold, but avoid too much heat. *If poisoning is severe, look for medical help.*
2. Make the child vomit and keep him vomiting until the vomit is clear. Put your finger in his throat; give him water with soap or salt in it until he vomit. But do not do this if it is not easy because some poisons can cause damage also while the vomiting is occurring.
3. After vomiting have the child drink all he can of milk, beaten eggs, or flour mixed with water. Keep giving him more milk, eggs or flour.

• **SOMETHING IN THE THROAT:**

When food or something else sticks in a person's throat and he cannot breathe, this is an emergency, so **quickly try** this:

1. Stand behind the person and wrap your arms around the waist,
2. Put your fist against the belly above the navel and below the ribs,
3. Press belly with a **sudden** strong upward jerk.

This forces air from the lungs and should clear the throat. Repeat several times if necessary. If the person is, a lot bigger than you are, or is already unconscious, **quickly** do this:

1. Lay on back.
2. Sit above the person with the heel of your lower hand on his belly between his navel and ribs
3. Make a quick, strong upward push
4. Repeat several times if necessary
5. If the person still cannot breathe, try **mouth-to-mouth breathing**.



- **DROWNING:**

A person who has stopped breathing has only a few minutes to live! You must act fast!

Start mouth-to-mouth breathing at once. If possible, even before the drowning person is out of the water and as soon as it is shallow enough to stand. If you cannot blow air into the lungs, when you reach the shores, quickly place the head lower than the feet and push the belly hard as described above to get water out of the throat and lungs. Then continue mouth-to-mouth breathing at once.

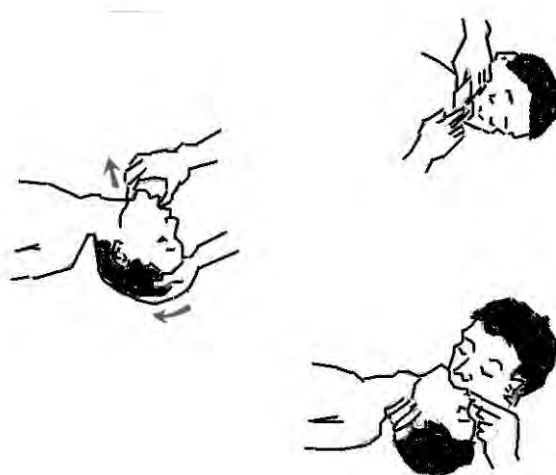
Things That Causes the Breathing to stops:

1. Something stuck in throat
2. The tongue or thick mucus is blocking the throat of an unconscious person
3. Drowning, choking on smoke, or poisoning
4. A strong blow to the head or chest
5. A heart attack

When breathing stops:

A person will die within a few minutes if he does not breathe. Do all of the following as quickly as you can:

- 1) Quickly remove anything stuck in the mouth or throat.
- 2) Pull the tongue forward. If there is mucus in the throat, quickly try to clear it out.
- 3) Quickly lay the person face up, tilt his headway back, and pull his jaw forward.

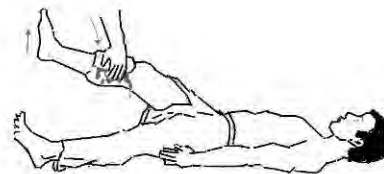


- 4) **Do mouth-to-mouth breathing.** Pinch the nostrils closed with your fingers, open the mouth wide, cover the mouth with yours, and blow strongly into the lungs so that his chest rises.

5) Pause to let the air come back out and blow again. Repeat about 15 minutes. With newborn babies, breathe **very gently** about 25 times per minute. Continue **mouth-to-mouth breathing** until the person can breathe by himself, or until there is no doubt the person is dead. You must keep trying for an hour or more.

- **BLEEDING:**

1. Raise the injured part of the body.
2. With a clean cloth (or your hand if there is no cloth) press directly on the wound. Keep pressing until the bleeding stops. This may take 15 minutes or sometimes an hour or more.
3. If the bleeding cannot be controlled by pressing on the wound, and if the person is losing a lot of blood, do the following:



- Keep pressing on the wound.
- Keep the wounded part as high as possible.
- Tie the arm or leg with a tight band (tourniquet with an arrangement such a short stick that you can twist) as close to the wound as possible and between the wound and the rest of the body. Tighten enough to control the bleeding.
- For the tie, use a folded cloth or a wide belt; never use thin rope, string or wire.

Precautions:

1. Loosen the tied for a moments every half hour to see if it is still needed and to let the blood circulate. Leaving it too long may stops circulation in the arm or leg so much it must be cut off or it may become paralyzed.
2. If bleeding or injury is severe, raise the feet and lower the head to prevent shock.

- **HOW TO STOP NOSEBLEEDS:**

1. Sit quietly.
2. Pinch the nose firmly for 10 minutes or until the bleeding has stopped.

If this does not control the bleeding. Pack the nostril with a wad of cotton, leaving part of it outside the nose. If a person's nose bleeds often they may have vitamin deficiency.

Try eating oranges, tomatoes, and other fruits.

Cuts, scrapes, and small wounds:

Cleanliness is of great importance in preventing infection and helping wounds heal.

Treatment a wound.

1. First, wash your hands very well with soap and water.
2. Then wash the wound well with soap and boiled water when cleaning the wound.
3. Lift up and clean under any flaps of skin.
4. Never put alcohol, tincture of iodine, or Merthiolate directly into a wound; doing so will only damage the flesh and make healing slower. You can put them on the skin around a wound to reduce infection. Use soap and water.

Large cuts: how to close them:

A recent cut that is clean will heal faster if you bring the edges together so the cut stays closed.

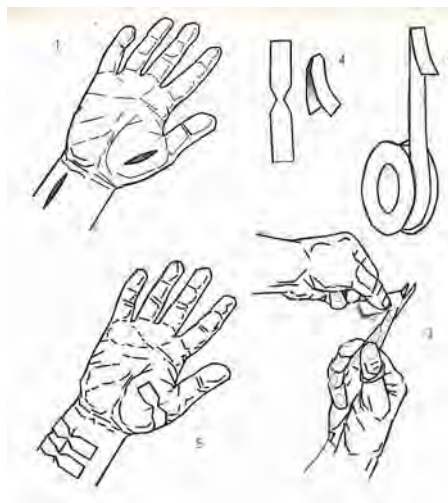
Close a deep cut only if all of the following are true:

1. The cut is less than 12 hours old.
2. The cut is very clean.

Before closing the cut, wash it very well with boiled water and soap.

Methods to close a cut:

1. "Butterfly" bandages of adhesive tape (See Pictures below)
2. Wider tape to hold wound edges together.



Infected wounds:

How to recognize and treat them. A wound is infected if:

1. It becomes red, swollen, hot and painful,
2. It has pus draining from the wound.

The infection is spreading to other parts of body if:

1. It causes fever.
2. There is a red line above the wound,
3. Or if the lymph nodes become swollen and tender. Lymph nodes-often called 'glands.

- Swollen lymph nodes behind the ear point to an infection on the head or scalp, often caused by sores or lice. Swollen nodes below the ear and on the neck indicate infections of the ear, face, or head (or perhaps tuberculosis).
- Swollen nodes below the jaw indicate infections of the teeth or throat.

Treatment of infected wounds:

1. Put hot compresses over the wounds for at least 20 minutes 4 times a day. Hold an infected hand or foot in a bucket of hot water with soap or salt.
2. Keep the infected part at rest and elevated (raised above the level of the heart).
3. If the infection is severe use an antibiotic like penicillin.

• **BURNS:**

Prevention:

Most burns can be prevented. Take special care with children:

1. Do not let small babies go near a fire.
2. Keep lamps and matches out of reach.
3. Keep hot pans on the stove away from children.

Minor burns that do not form blisters (1st degree)

To help ease the pain and lessen damage caused by a minor burn, put the burned part in cold water **at once**. No other treatment is needed. Take aspirin for pain.

Burns that cause blister (2nd degree)

Do not break blisters. If the blisters are broken, wash gently with soap and boiled water that has been cooled. Never smear on grease or butter. It is very important to keep the burn as clean as possible. Protect it from dirt, dust, and flies.

You can spread on a little antibiotic ointment or gentian violet to help control infection. In severe cases, consider taking an antibiotic such as penicillin or Ampicillin.



Deep burns (3rd degree) that destroy the skin and expose raw or charred flesh are always serious, as are any burns that cover large areas of the body. Take the person to a health center at once. In the meantime wrap the burned part with a very clean cloth or towel.

If it is impossible to get medical help, treat the burn as described above. Leave burn in the open air, covering it only with a loose cotton cloth or sheet to protect it from dust and flies. Keep the cloth very clean and change it each time it gets dirty with liquid or blood. Give penicillin.

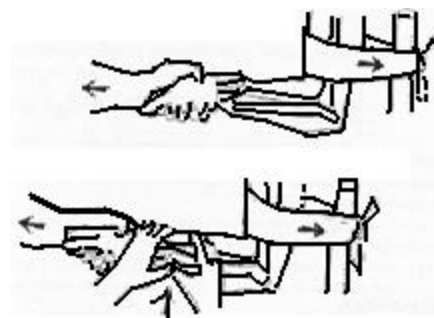
- **BROKEN BONES (fractures):**

When a bone is broken, the most important thing to do is keep the bone in a fixed position especially during transportation. This prevents more damage and lets it heal. Before trying to move or carry a person with broken bones, protect the bones from moving with splints, strips of bark bamboo, or a sleeve of cardboard. Later a plaster cast can be put on the limb at a health center, or perhaps you can make a 'cast' following to local traditions.

Setting broken bones: If the bones seem more or less in the right position, it is better not to move. If the bones are far out of position and the break is recent, you can try to 'set' or straighten them by pulling gently but firmly against the muscles to bring the ends together and let them fixed together naturally. The sooner the bones are set, the easier it will be. Be very careful not to get the binding on a splint or cast too tight so it cuts off circulation because this can cause permanent damage.

HOW TO SET A BROKEN WRIST LOSING BONES:

1. Pull the hand forcefully and steadily for 5 or 10 minutes to separate the broken bones.
2. With one person still pulling the hand, have another gently line up and straighten the bones.
3. It is possible to do a lot of damage while trying to set a bone. Ideally, it should be done with the help of someone with experience. Do not use force.

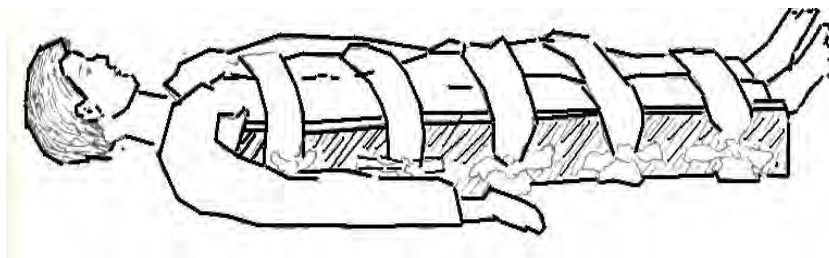


How long does it take for broken bones to heal?

The worse the break or the older the person, the longer healing takes. Children's bone heal rapidly. Those of old people sometimes never join. A broken arm should be kept in a cast for about 2 months.

- **BROKEN THIGH BONE:**

A broken upper leg often needs special attention. It is best to splint the whole leg and hip pelvis together and to take the injured person to a health center at once.



- **BROKEN NECKS AND BACKS:**

If there is any chance a person's back or neck has been broken, be very careful when moving him. Try not to change the position. If you must move him, do so pulling the head straight without bending his back or neck or supporting the neck with a special tight collar.

- **BROKEN RIBS:**

These are very painful, but usually heal on their own. It is better not to splint or tightly bind the chest but some support helps keep the ends of the bones from shifting and causing pain. The best treatment is to take aspirin-and rest. It may take months before the pain is gone completely. A broken rib does not often puncture a lung. But if the person coughs blood or develops breathing difficulties, use antibiotics (penicillin or Ampicillin) and seek medical help.

Broken bones that break through the skin (compound fractures)

Since the danger of infection is very great in these cases, it is always better to get help from a health worker or doctor. Clean the wound and the exposed bone very thoroughly with boiled water. Never put the bone back into the wound until the wound and the bone are absolutely clean.

15. EYE PROBLEM AND INFECTIONS:

Eye problems are common in Tibet especially in rural areas. Poor cleanliness and sanitation causes most of the eye problems. Mothers can teach and care for all their family members.

How to care eye for simple problems:

1. You can get a bit of dirt or sand out of the eye by flooding the eye with clean water or by using the corner of a clean cloth.
2. If the particle of dirt is under the upper lid, look for it by turning the lid up over a thin stick by lifting with the eyelashes.
3. Wash your and your children's faces every day and use smokeless stove.
4. If you cannot get the particle out easily, use an antibiotic eye ointment, cover the eye with a bandage, and go for medical help.

The eyes are delicate and need good care. Get medical help fast when there is any injury or pain.

Pink eyes (conjunctivitis). This infection causes redness, pus, and mild 'burning' in one or both eyes.

Treatment: First clean pus from the eyes with a clean cloth moistened with boiled water. Then put in antibiotic eye ointment. Pull down the lower lid and put a little bit of ointment **inside**.

Prevention: Most conjunctivitis is very contagious. The infection is easily spread from one person to another. Do not let a child with pink eye play or sleep with others, or use the same towel. Wash hands after touching eyes.

Trachoma: Trachoma is a chronic form of conjunctivitis that slowly gets worse. It may last for months or many years and usually cause blindness. It is spread by contact or by flies, and is most common where people live in poor, crowded conditions.

Signs:

- Trachoma begins with red, watery eyes, like ordinary conjunctivitis.
- After a month or more, small, pinkish gray lumps, called follicles, form inside the upper lids.
- The top edge of the cornea looks grayish, because it has many tiny new blood vessels in it (*pannus*). Which eventually leaves whitish scars.

Treatment of Trachoma: Put a Tetracycline eye ointment inside the eyes 3 times a day for a month.

Prevention: Early and complete treatment of trachoma helps prevent spread to others. All persons living with someone who has trachoma, especially children, should have their eyes examined and if signs appear, they should be treated early.

Infected eyes in newborn babies (neonatal conjunctivitis). In the first 2 days of life, if a newborn baby's eyes get red, swell, and have a lot of pus in them, this is probably gonorrhoea. The baby has picked up the disease from the mother at birth. It must be treated **at once** to prevent the baby from going blind using prescribed antibiotics.

Glaucoma: This dangerous disease is the result of too much pressure in the eye. It usually begins after the age of 40 and is a common cause of blindness. To prevent blindness, it is important to recognize the signs of glaucoma and get medical help fast.

Test For Glaucoma: Have the person cover one eye, and with the other look at an object straight ahead of him. Note when he can first see moving fingers coming from behind on each side of the head.

In glaucoma, finger movement is first seen more toward the front. If discovered early, treatment with special eye drops (pilocarpine) may prevent blindness. Dosage should be determined by a doctor or health worker who can measure the eye pressure periodically. Drops must be used for the rest of one's life.

Prevention: Persons who are over 40 years old or have relatives with glaucoma should have their eye pressure checked once a year. They may need surgery.

Cross-eyes and wandering eyes: If a baby or young child has one eye that turns in (cross-eye) or out (wall-eye) or that sometimes looks the wrong way (wanders), try covering the good eye with a patch. If possible, do this when the child is 6 months old. Keep the good eye covered until the other eye stays straight. For a 6-month-old baby this may only take a week or two. Older children take longer up to a year for a 7-year-old, so for an older child discuss with a health worker first. Early patching of good the eye often prevents a child from staying cross-eyed or wall-eyed for life. If one eye is always turned the wrong way, it is less likely that



covering the good eye will help. Special glasses sometimes help. The eyes can also be straightened by surgery.

Sty (hordeolum): A red, swollen lump on the eyelid, usually near its edge. To treat, apply warm, moist compresses with a little salt in the water. Use of an antibiotic eye ointment 3 times a day will help prevent more sties from occurring.

Reference:

1. Where there is no Doctor “By David Werner”.
2. Just and Lasting change “Dr. Carl and Dr. Daniel”
3. Field worker’s hand book “UNICEF”.
4. UMN/CDHP Training Manual “CDHP team”.
5. Some Pictures contributed by Share & Care Nepal and other manuals.