

141.0

77MA

copy

Manual for Community Health Worker



सत्यमेव जयते

MINISTRY OF HEALTH AND
FAMILY WELFARE NEW DELHI

LIBRARY
International Reference Centre
for Community Welfare Supply

141.0-77MA-377

**Manual for
Community Health Worker**

377

(2nd copy)

141.0
77 MA

Manual for Community Health Worker



सत्यमेव जयते

Ministry of Health and Family Welfare, New Delhi

LIBRARY
International Reference Centre
for Community Water Supply

© Ministry of Health and Family Welfare, Government of India, 1977

First Edition: October 1977

Published by UNICEF for the Ministry of Health and Family Welfare, Government of India, designed by
Stet—The Media People, New Delhi, and printed at Shuchi Private Limited, New Delhi

FOREWORD

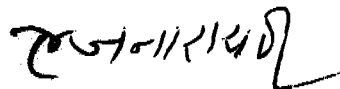
The soul of our country lives in the villages. The progress of the country depends on the progress of the villages. Unfortunately, the steps which were taken for the development of the villages have not been adequate. In fact, people's co-operation was not sought to make rural development a success. They were not given the opportunity to participate in the activities sponsored by the Government nor were they given the opportunity for doing these jobs themselves. All developmental activities were run by those who did not have their roots in the villages and who did not have direct knowledge of the needs of the villages. The wisdom and the capacity of the simple but extremely intelligent people of the villages could not be utilised for their own welfare.

I have spent my life in rural India which is imbued with simplicity, generosity and the bounties of nature. It is the India of the ideals of Ram, Krishna, Buddha, Gandhi, and Dr. Lohia which has filled my dreams. Keeping in view these great and ancient traditions, I always feel confident that our country will again be happy and prosperous. But it is possible only when the health of all our countrymen is sound and ideal. In the discharge of my heavy responsibilities as Union Minister for Health and Family Welfare, it would be my utmost effort to improve the health services in the rural areas.

I would like the people in the villages to participate in the health services organised for their benefit. They should always draw the attention of the Government to get the maximum support that could be extended to them in their efforts. In fact, both the people and the Government have to work shoulder to shoulder in this great task. The Community Health Workers, who will be selected by the people, will work as an important link between the people and the Government. They will co-ordinate the efforts of the people with those of the Government. It will be their responsibility to apprise the people of the knowledge acquired by them in health matters.

All these years the curative aspect has been dominant in health services. I would like the Community Health Workers to educate the people in the villages on how to prevent disease and keep good health. The Community Health Workers should know how to maintain good health and should teach people how to be healthy. It should be their sincere effort that each individual in the village knows everything about health which the Community Health Workers themselves know. In fact, every individual should, in due course, become a health worker for himself, so that he is in a position to promote his health by himself. Every citizen of our nation will be an epitome of good health and the life of the nation will be healthy and happy when the Community Health Workers succeed in their efforts.

This manual has been prepared with a view to enabling the Community Health Workers to discharge their responsibilities properly. It contains information on the fundamentals of health, treatment of common ailments, maternal and child welfare, first aid, etc. While preparing this manual, particular care has been taken to see that the Community Health Workers get fundamental knowledge about our traditional systems of medicine, yoga, naturopathy, which they should utilise for bringing about improvement in the health of the people. They are the pioneers of this scheme. Its success would depend on their hard work and dedication. I have great expectations from them and I convey my very best wishes to them.



(RAJ NARAIN)

Union Minister of Health & Family Welfare

New Delhi
October 2, 1977

ACKNOWLEDGEMENTS

This Manual has been the joint endeavour of several institutions and individuals, especially the Central Training Institutes and the various departments of the Ministry of Health & Family Welfare.

The final draft was prepared by the Rural Health Division of the Ministry of Health & Family Welfare, with Dr. Joseph Galea, WHO Public Health Officer, and Miss Katherine N. Ase, WHO Public Health Nurse under WHO Project HMD-006.

The illustrations were prepared by the National Institute of Health & Family Welfare, New Delhi, and by the artist provided by the UNICEF.

The UNICEF has provided the financial assistance for the printing of the Manual and has been responsible for getting it published.

C.R. KRISHNAMURTHI
Joint Secretary
Ministry of Health & Family Welfare

CONTENTS

ACTIVITIES OF COMMUNITY HEALTH WORKER

- CHAPTER 1 MALARIA**
Identification. Thick and thin blood films. Despatch of slides. Presumptive treatment. Records. Informing Health Worker (Male) of cases. Assistance in spraying and larviciding operations. Health education.
- CHAPTER 2 SMALLPOX**
Identification. Arranging for primary vaccination. Follow-up. Health education.
- CHAPTER 3 COMMUNICABLE DISEASES**
Informing Health Worker (Male) about epidemics. Precautions to limit spread. Health education.
- CHAPTER 4 ENVIRONMENTAL SANITATION AND PERSONAL HYGIENE**
Chlorination of drinking water sources. Records of wells chlorinated. Assistance in constructing soakage pits, kitchen gardens, compost pits, sanitary latrines, smokeless chulhas. Health education (safe drinking water, disposal of liquid and solid wastes, home sanitation, kitchen gardens, sanitary latrines, smokeless chulhas, food hygiene, control of insects, rodents and stray dogs). Personal hygiene.
- CHAPTER 5 IMMUNIZATION**
Arranging for immunization. Health education (diphtheria, whooping cough, tetanus, smallpox, tuberculosis, poliomyelitis, cholera, typhoid).
- CHAPTER 6 FAMILY PLANNING**
Need for small families. Methods of family planning (IUD, oral contraceptives, foam tablets, jellies and creams, rhythm method, tubectomy, nirodh, withdrawal, vasectomy). Responsibilities of depot holders. Informing Health Worker about cases desiring a family planning method. Medical Termination of Pregnancy.
- CHAPTER 7 MATERNAL AND CHILD CARE**
Prenatal, natal and postnatal care. Tetanus toxoid in pregnancy. Facilities for MCH services. Health education.
- CHAPTER 8 NUTRITION**
Identification of malnutrition. Treatment of anaemia. Administration of vitamin A in children. Breast feeding and supplementary weaning foods. Nutritious diets for mothers and children.
- CHAPTER 9 VITAL EVENTS**
Reporting births and deaths. Importance of registration of births and deaths.
- CHAPTER 10 FIRST AID IN EMERGENCIES**
Drowning. Electric shock. Heatstroke. Snake bite. Scorpion sting. Insect sting. Dog bite. Accidents (wounds, sprains and dislocations, fractures, burns and scalds). Procedures in dealing with accidents (splints, bandaging, treatment of shock, control of bleeding).
- CHAPTER 11 TREATMENT OF MINOR AILMENTS**
Fever. Headache. Backache and pain in the joints. Cough and cold. Diarrhoea. Vomiting. Pain in the abdomen. Constipation. Toothache. Earache. Sore eyes. Boils, abscesses and ulcers. Scabies and ringworm. Records.
- APPENDIX 11.1 GUIDE FOR THE USE AND ADMINISTRATION OF DRUGS**
- APPENDIX 11.2 CONTENTS OF KIT FOR COMMUNITY HEALTH WORKER**
- CHAPTER 12 MENTAL HEALTH**
Recognition of mental illness. Emergencies. Mental health education.

- CHAPTER 13** **AYURVEDA**
Diet. Sleep. Spiritual life. Seasonal Conduct. Social Conduct. Ayurvedic treatment for common ailments: Fever. Cough. Vomiting. Diarrhoea. Indigestion. Constipation. Pain in abdomen. Joint pain. Backache. Headache. Skin diseases, boils and abscesses. Burns and scalds. Cuts and scratches. Dog bite. Snake bite. Insect bite. Scorpion sting. Lice. Bleeding. Eye trouble. Earache. Toothache. Wounds. Sprains.
- APPENDIX 13.1** **GUIDE FOR THE USE AND ADMINISTRATION OF AYURVEDIC DRUGS**
- CHAPTER 14** **YOGA FOR HEALTH**
Asanas. Pranayama.
- CHAPTER 15** **UNANI TREATMENT FOR COMMON AILMENTS**
Fever. Sunstroke. Cold. Cough. Vomiting. Diarrhoea. Indigestion. Constipation. Joint pain. Backache. Headache. Scabies. Ringworm. Boils and abscesses. Burns and scalds. Cuts and scratches. Dog bite. Snake bite. Insect sting. Scorpion sting. Lice. Bleeding. Eye trouble. Earache. Toothache. Sprain. Wounds.
- APPENDIX 15.1** **GUIDE FOR THE USE AND ADMINISTRATION OF UNANI DRUGS**
- CHAPTER 16** **SIDDHA**
Personal hygiene and health. Diet. Sleep. Mental health. Seasonal conduct. Social conduct. Siddha treatment for common ailments: Fever. Cough. Vomiting. Pain in the abdomen. Diarrhoea. Constipation. Joint pains. Worms. Skin diseases. Burns and scalds. Cuts and scratches. Toothache. Earache. Dog bite. Snake bite. Sore eyes. Boils and abscesses. Backache. Headache. Indigestion. Wounds. Sprains. Difficulty in breathing.
- APPENDIX 16.1** **GUIDE FOR THE USE AND ADMINISTRATION OF SIDDHA DRUGS**
- CHAPTER 17** **HOMOEOPATHY**
Introduction. Preparation, handling and storage of homoeopathic medicines. Administration of medicines. Regimen during homoeopathic treatment. Referral and records. Homoeopathic treatment for common ailments: Fever. Headache. Backache. Joint pains. Diarrhoea. Cold. Cough. Vomiting. Pain in the abdomen. Indigestion. Constipation. Earache. Sore eyes. Toothache. Boils and abscesses. Ulcers. Scabies. Ringworm. Burns and scalds. Wounds. Sprains. Dog bite. Scorpion sting and insect stings. Snake bite. Lice.
- APPENDIX 17.1** **HOMOEOPATHIC MEDICINES TO BE CARRIED BY COMMUNITY HEALTH WORKER**
- APPENDIX 17.2** **GUIDE FOR THE USE AND ADMINISTRATION OF HOMOEOPATHIC DRUGS FOR EXTERNAL USE**

*Go to the people
Live among them
Learn from them
Love them
Start with what they know
Build on what they have.*

* * *

*Of the best leaders
the people only know that they exist;
The next best they love and praise;
the next they fear;
And the next they revile.
When they do not command the people's trust,
Some will lose faith in them,
And then they resort to recriminations!
But of the best, when their task is accomplished,
their work done,
The people all remark, 'We have done it ourselves!'*

—Old Chinese Poem

Activities of Community Health Worker

Note: A Community Health Worker will be expected to cover the population of a village or, if the village is a large one, a population of about 1,000. He/she will receive technical guidance from the Health Worker (Male/Female).

After training, the Community Health Worker will be able to carry out the following activities:

1. Malaria

- 1.1 Identify fever cases.
- 1.2 Make thick and thin blood films of all fever cases.
- 1.3 Send the slides for laboratory examination.
- 1.4 Administer presumptive treatment to fever cases.
- 1.5 Keep a record of the persons given presumptive treatment.
- 1.6 Inform the Health Worker (Male) of the names and addresses of cases from whom blood slides have been taken.
- 1.7 Assist the Health Worker (Male) and the spraying teams in spraying and larvicidal operations.
- 1.8 Educate the community on how to prevent malaria.

2. Smallpox

- 2.1 Identify cases of fever with rash and report them to the Health Worker (Male).
- 2.2 Inform the Health Worker of infants aged zero to one year requiring primary vaccination as follows:
 - 2.2.1 In the intensive area inform the Health Worker (Female).
 - 2.2.2 In the twilight area inform the Health Worker (Male).
- 2.3 Assist the Health Worker (Male/Female) in arranging for primary vaccination.
- 2.4 Follow up cases who have been given primary vaccination.
- 2.5 Educate the community about the importance of primary vaccination.

3. Communicable diseases

- 3.1 Inform the Health Worker (Male) immediately an epidemic occurs in his/her area.
- 3.2 Take immediate precautions to limit the spread of disease.
- 3.3 Educate the community about the prevention and control of communicable diseases.

4. Environmental sanitation and personal hygiene

- 4.1 Chlorinate drinking water sources at regular intervals.
- 4.2 Keep a record of the number of wells chlorinated.
- 4.3 Assist the Health Worker (Male) in arranging for the construction of the following:
 - 4.3.1 Soakage pits
 - 4.3.2 Kitchen gardens
 - 4.3.3 Compost pits
 - 4.3.4 Sanitary latrines
 - 4.3.5 Smokeless chulhas.
- 4.4 Educate the community about the following:
 - 4.4.1 Safe drinking water
 - 4.4.2 Hygienic methods of disposal of liquid waste
 - 4.4.3 Hygienic methods of disposal of solid waste
 - 4.4.4 Home sanitation
 - 4.4.5 Kitchen gardens

- 4.4.6 Advantages and use of sanitary latrines
 - 4.4.7 Advantages of smokeless chulhas
 - 4.4.8 Food hygiene
 - 4.4.9 Control of insects, rodents and stray dogs.
 - 4.5 Educate the community about the importance of personal hygiene.
- 5. Immunization**
- 5.1 Assist the Health Worker (Male/Female) in arranging for immunization.
 - 5.2 Educate the community about immunization against diphtheria, whooping cough, tetanus, smallpox, tuberculosis, poliomyelitis, cholera and typhoid.
- 6. Family planning**
- 6.1 Spread the message of family planning to the couples in his/her area and educate them about the desirability of the small family norm.
 - 6.2 Educate the people about the methods of family planning which are available.
 - 6.3 Act as a depot holder, distribute nirodh to the couples, and maintain the necessary records of nirodh distributed.
 - 6.4 Inform the Health Worker (Male/Female) of those couples who are willing to accept a family planning method so that he/she can make the necessary arrangements.
 - 6.5 Educate the community about the availability of services for Medical Termination of Pregnancy (MTP).
- 7. Maternal and child care**
- 7.1 Advise pregnant women to consult the Health Worker (Female) or the trained dai for prenatal, natal and postnatal care.
 - 7.2 Advise pregnant women to get immunized against tetanus.
 - 7.3 Educate the community about the availability of maternal and child care services and encourage them to utilize the facilities.
 - 7.4 Educate the community about how to keep mothers and children healthy.
- 8. Nutrition**
- 8.1 Identify cases with signs and symptoms of malnutrition among pre-school children (one to five years) and refer them to the Health Worker (Male/Female).
 - 8.2 Identify cases with signs and symptoms of anaemia in pregnant and nursing women and children and refer them to the Health Worker (Male/Female) for treatment.
 - 8.3 Assist the Health Worker (Male/Female) in administering vitamin A solution as prescribed to children from one to five years of age.
 - 8.4 Teach families about the importance of breast feeding and the introduction of supplementary weaning foods.
 - 8.5 Educate the community about nutritious diets for mothers and children.
- 9. Vital events**
- 9.1 Report all births and deaths in his/her area to the Health Worker (Male).
 - 9.2 Educate the community about the importance of registering all births and deaths.
- 10. First aid in emergencies**
- 10.1 Give emergency first aid for the following conditions, refer these cases to the Primary Health Centre as necessary and inform the Health Worker (Male/Female).
 - 10.1.1 Drowning
 - 10.1.2 Electric shock
 - 10.1.3 Heat stroke
 - 10.1.4 Snake bite

- 10.1.5 Scorpion sting
 - 10.1.6 Insect stings
 - 10.1.7 Dog bite
 - 10.1.8 Accidents.
 - 10.2 Carry out procedures in dealing with accidents.
 - 10.3 Keep a record of first aid given to each patient.
- 11. Treatment of minor ailments**
- 11.1 Give simple treatment for the following signs and symptoms and refer cases beyond his/her competence to the Subcentre or Primary Health Centre:
 - 11.1.1 Fever
 - 11.1.2 Headache
 - 11.1.3 Backache and pain in the joints
 - 11.1.4 Cough and cold
 - 11.1.5 Diarrhoea
 - 11.1.6 Vomiting
 - 11.1.7 Pain in the abdomen
 - 11.1.8 Constipation
 - 11.1.9 Toothache
 - 11.1.10 Earache
 - 11.1.11 Sore eyes
 - 11.1.12 Boils, abscesses and ulcers
 - 11.1.13 Scabies and ringworm.
 - 11.2 Keep a record of the treatment given to each patient.
- 12. Mental health**
- 12.1 Recognize signs and symptoms of mental illness and refer these cases to the Health Worker (Male/Female).
 - 12.2 Give immediate assistance in emergencies associated with mental illness.
 - 12.3 Educate the community about mental illness.

CHAPTER 1

Malaria

1.1 Identify fever cases

The typical signs of malaria are:

1. Fever
2. Shivering
3. Sweating.

However, whenever you see a case of fever without any other signs and symptoms such as rash, diarrhoea or cough, always consider it to be a case of malaria.

If you do not have a thermometer, check for fever by feeling the forehead and the chest with the back of the hand (see Fig. 1.1).

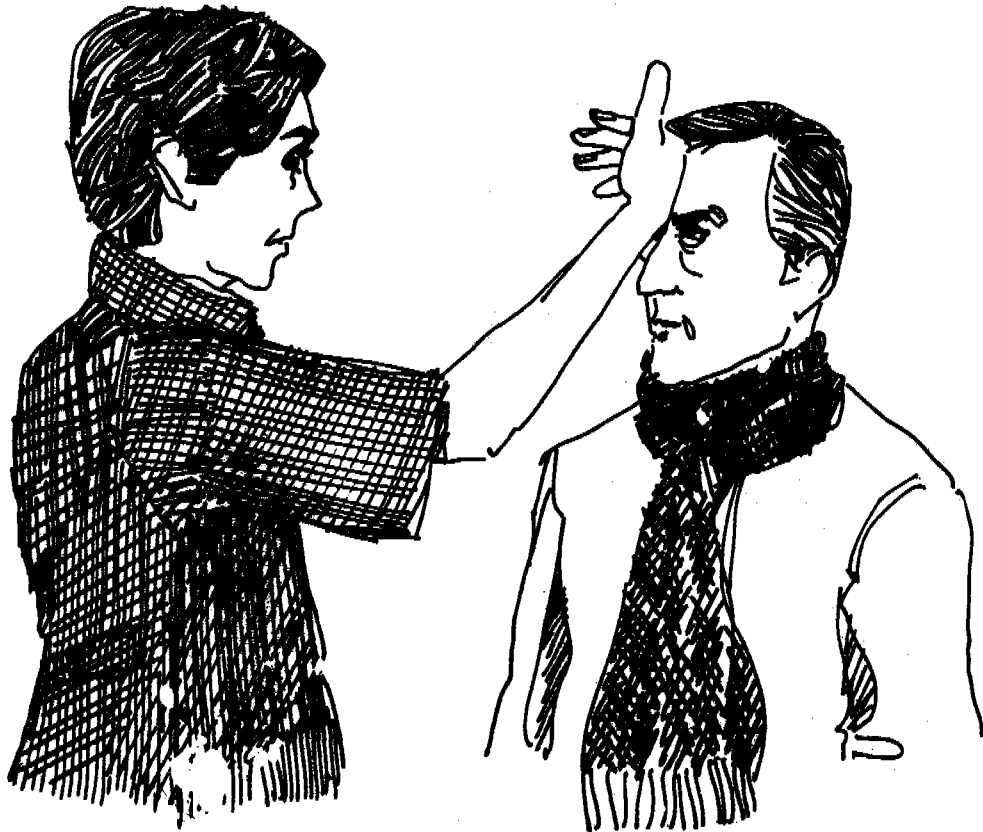


Fig. 1.1—Feeling for fever

1.2 Make thick and thin blood films of all fever cases

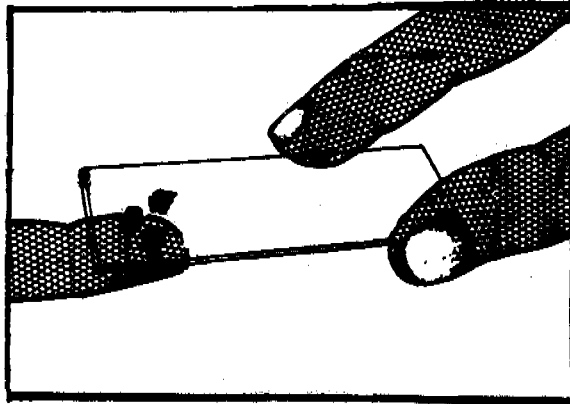
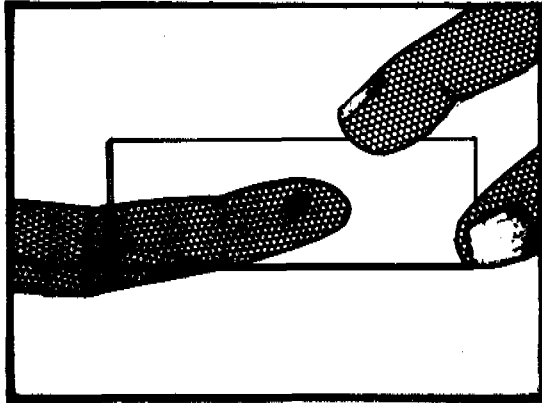
It is necessary to take a blood film to confirm whether the patient has malaria (see Fig. 1.2).

In adults prick the left middle or ring finger. In babies prick the left big toe. Proceed as follows:

- (i) Hold the finger to be pricked.
- (ii) Clean the tip of the finger with spirit.

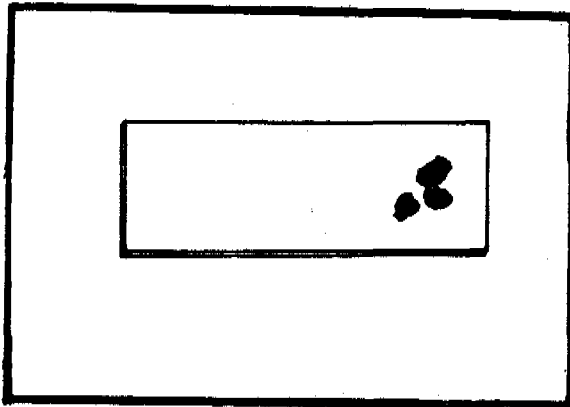
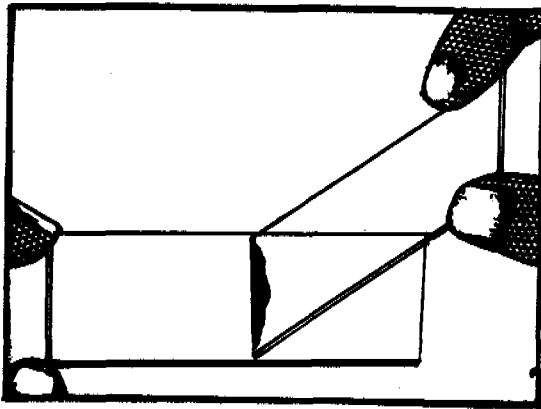
THIN BLOOD FILM

THICK BLOOD FILM



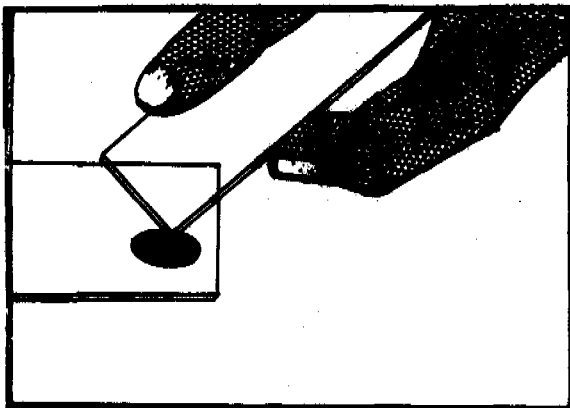
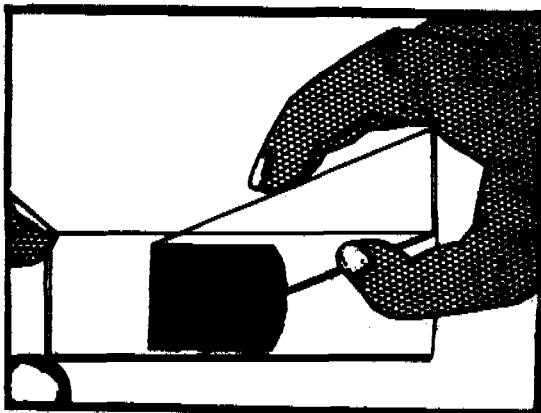
Step 1

Step 1



Step 2

Step 2



Step 3

Step 3



Fig. 1.2—Preparation of thick and thin blood films

- (iii) Dry with another piece of cotton wool.
- (iv) Prick the finger at the side of the tip with a Hagedorn needle.
- (v) Allow the blood to flow freely.
- (vi) Discard the first drop of blood or make the thin film.
- (vii) The next blood drops should be collected for examination.

Thin blood film

- (viii) Put a drop of fresh blood on the middle of the slide.
- (ix) Use another slide end and allow the drop of blood to spread along it.
- (x) Push the spreader quickly from the centre to the left side of the slide, drawing the blood behind it.
- (xi) Leave the film to dry. Do not blow on it or shake the slide.
- (xii) When the film has dried mark the slide by writing the number given on the thin film, using a lead pencil, according to the instructions given to you.

Thick blood film

- (viii) Put three drops of fresh blood on the left hand quarter of the slide. Note that when the slide is turned over the drops will be on the right end of the slide.
- (ix) With the corner of another slide mix the blood and smear it in a round form of about 1 cm in diameter.
- (x) Leave the film to dry. Do not blow on it or shake the slide.

1.3 Send the slides for laboratory examination

After taking a blood film, proceed as follows:

- (i) Wrap the slide in the prescribed form which has been completed with the particulars of the patient (*see* Form S.F. 2/M.F. 2).
- (ii) Place in the already franked and addressed envelope provided for the purpose.
- (iii) Post all the slides at the end of the day's work, or the slides may be collected by the Health Worker (Male) for examination.

1.4 Administer presumptive treatment to fever cases

After taking the blood films from a fever case, give presumptive treatment as follows:

Age	Dose of chloroquine (150 mg base)
0-1 year	75 mg (1/2 tablet)
1-4 years	150 mg (1 tablet)
4-8 years	300 mg (2 tablets)
8-14 years	450 mg (3 tablets)
14 years plus	600 mg (4 tablets)

1.5 Keep a record of the persons given presumptive treatment

Keep a part of your Medical Care Register for separate records of fever cases from whom you have taken blood films and to whom you have given presumptive treatment.

Enter the following information in the register:

- (1) Date. (2) Name. (3) Age. (4) House No. (5) Symptoms/signs. (6) Treatment given.

1.6 Inform the Health Worker (Male) of the names and addresses of cases from whom blood slides have been taken

The Health Worker (Male) will visit your area once in a week. At this visit you should give him the information entered in your register.

FORM S.F. 2/M.F. 2 FOR REPORTING OF BLOOD SMEARS BY
COMMUNITY HEALTH WORKER

Date of despatch _____

State _____

District _____

Primary Health Centre _____

Subcentre _____

Section _____

Name and address of Community Health Worker _____

Village	No. of the house	Name of head of the family	Name of patient	Age	Sr. No. of blood smear	Treatment: No. of tablets given (4-amino)	Date of collection	Result				Remarks
								f	v	m	Mixed	

Note: This form should be in triplicate and two copies forwarded to the Primary Health Centre Laboratory who will retain one copy and send the other to the Health Assistant (Male) after completion.

Signature of Microscopist _____

Date of examination by the Microscopist _____

Signature of Community Health Worker _____

1.7 Assist the Health Worker (Male) and the spraying teams in spraying and larvicidal operations

It is very important that the community allows the spraying teams to carry out spraying and larvicidal measures when an outbreak of malaria occurs in your area. Your duties are as follows:

1. Inform the leaders and the community about the programme of spraying and larviciding.
2. Ensure that the whole community accepts the programme.
3. Identify resisters and try to persuade them to accept the programme.
4. Identify those members of the community who are able and willing to help in the spraying and larviciding operations.
5. Ensure that the spraying team is allowed to spray the inside of the houses.
6. Instruct each householder to prepare the house for spraying by:
 - (a) Removing all pictures and wall fixtures
 - (b) Covering all furniture with sheets
 - (c) Putting all food and fodder inside cupboards or keeping it well covered
 - (d) Taking all pets, poultry and livestock outside the house.
7. After spraying, ensure that:
 - (a) All sheets used for covering furniture are washed
 - (b) The walls are not dusted, washed or plastered.
8. Follow any other instructions given to you by the Health Worker (Male) or the spraying team.

1.8 Educate the community on how to prevent malaria

As a Community Health Worker and as a member of the community, one of your major responsibilities is to educate the other members of your community on ways of preventing malaria. Use every opportunity to impress on them the following points:

1. The way in which malaria is transmitted.
2. Every person with fever should see you immediately for treatment.
3. All cases with fever should cooperate by allowing you to take blood films.
4. The community should cooperate in spraying operations and in preparing the houses for spraying and after spraying.
5. The community members should not allow stagnant or slow moving water to collect near their houses.
6. The community members should protect themselves from mosquito bites, especially in the evenings by covering themselves and wherever possible, by using gauze screens or mosquito nets.

CHAPTER 2

Smallpox

2.1 Identify cases of fever with rash and report them to the Health Worker (Male)

Smallpox is an infectious disease in which the main symptoms are fever accompanied by a characteristic rash. This rash appears mainly on the face, upper limbs and lower limbs and is scanty on the trunk (see Fig. 2.1).

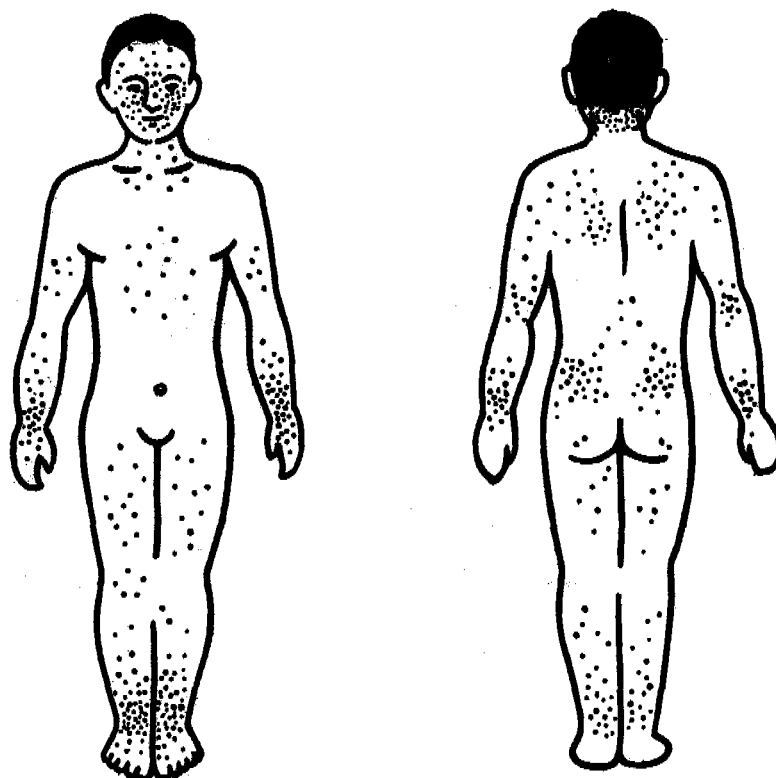


Fig. 2.1—Smallpox rash

The rash must be distinguished from that of chickenpox which is mainly found on the trunk (see Fig. 2.2).

Smallpox spreads rapidly from person to person by direct contact and by contact with articles which have been infected by smallpox cases.

In India smallpox has been eradicated, but you must be alert and inform the Health Worker (Male) immediately whenever you see any case which resembles smallpox.

2.2 Inform the Health Worker of infants aged zero to one year requiring primary vaccination as follows:

2.2.1 In the intensive area inform the Health Worker (Female)

2.2.2 In the twilight area inform the Health Worker (Male)

Smallpox can be prevented by ensuring that every infant is protected by vaccination as early as possible after birth.

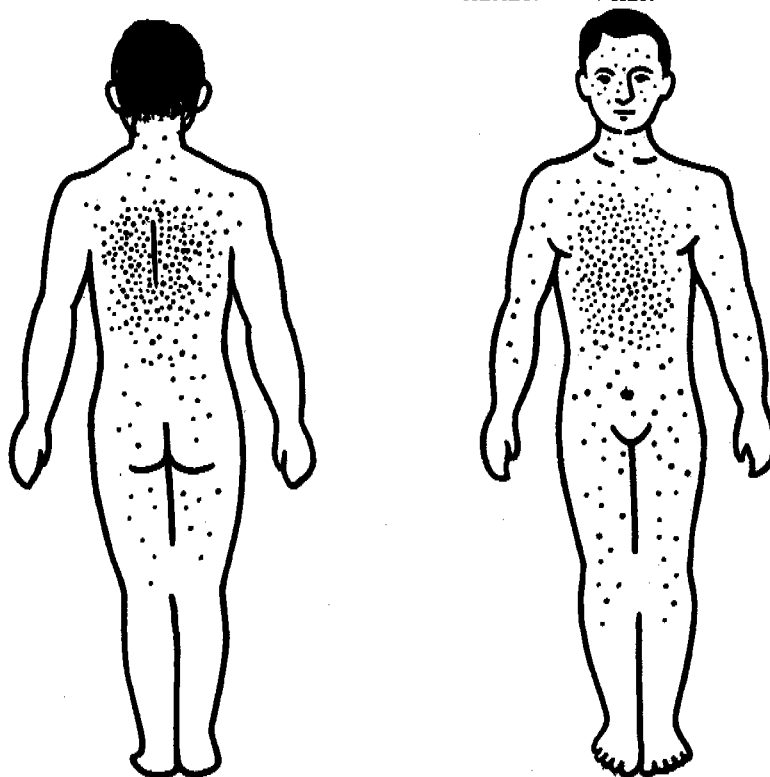


Fig. 2.2—Chickenpox rash

If you come across any infant in your area who has never been vaccinated against smallpox, inform the Health Worker (Male/Female) so that he/she can arrange for giving vaccination.

2.3 Assist the Health Worker (Male/Female) in arranging for primary vaccination

You can assist the Health Worker in arranging for primary vaccination in the following ways:

1. Tell the mothers that their children need to have primary vaccination to protect them against smallpox.
2. Instruct the mothers to bathe their babies before bringing them for vaccination.
3. Collect all unprotected infants at a central place at the time when the Health Worker is to visit the area.
4. Follow any instructions given by the Health Worker during the vaccination.

2.4 Follow up cases who have been given primary vaccination

You should visit each infant on the day after it has been vaccinated to reassure the mother if the child has fever and to ensure that nothing is applied on the vaccination site. Visit the child again 4 to 9 days after vaccination to see whether the vaccination has been successful. The usual course of a successful vaccination is as follows:

1. Between 3rd to 5th day — Blister forms
2. Between 8th to 9th day — Blister becomes larger and pus forms in blister
3. Between 11th to 12th day — Scab forms
4. Between 14th to 21st day — Scab falls off.

Note: If the vaccination is progressing normally, do not interfere with it. If it is infected or there are any unusual reactions, refer the infant to the Subcentre.

2.5 Educate the community about the importance of primary vaccination

In your talks with the people in the community, stress the following points:

1. It is important for every person to be protected against smallpox by vaccination.

2. Vaccination is harmless and practically painless.
3. The vaccination site should be cared for as follows:
 - (a) Leave it uncovered
 - (b) Do not wash it for 24 hours
 - (c) Do not apply anything to it, e.g., ointments, herbs, oils, etc.
 - (d) Prevent the child from scratching the site and make sure that the child's finger nails are cut short.
4. If there is no reaction by the 6th day the vaccination will have to be repeated.

CHAPTER 3

Communicable Diseases

Communicable diseases are those which are transmitted from man to man or animal to man directly, through infected materials or through insects. Some of the common communicable diseases include cholera, typhoid, smallpox, malaria, filariasis, leprosy, tuberculosis, measles, common cold, trachoma and sexually transmitted diseases.

3.1 Inform the Health Worker (Male) immediately an epidemic occurs in his/her area

When a disease occurs in an area where it does not normally occur, or when there are more than the usual number of cases, an epidemic is established.

Be alert to an increase in the number of cases in your area with the following signs and symptoms:

1. Diarrhoea, vomiting, jaundice and passing worms
2. Fever with or without rigors
3. Rash with fever
4. Cough and cold
5. Discharging eyes
6. Discolouration of skin with loss of sensation
7. Stiffness of neck
8. Lockjaw
9. Paralysis or weakness of limbs in children
10. Sore on the genital organs with or without discharge.

Report epidemics immediately to the Health Worker (Male) so that the necessary action can be taken to prevent spread of the disease.

3.2 Take immediate precautions to limit the spread of disease

While waiting for the Health Worker (Male) to arrive you must yourself take certain measures to limit the spread of disease.

These include the following:

Signs/Symptoms

- 3.2.1 Diarrhoea, vomiting, jaundice and passing worms

Precautions to be taken

1. Where sanitary latrines are not available see that the stool & vomit are buried so that flies do not settle on them.
2. See that any soiled clothing or linen of the patient is washed, boiled and dried in the sun.
3. Tell the community members to boil water and milk before drinking.
4. Chlorinate all drinking water sources.
5. Those caring for the patient should not handle the food of the family and should wash and dry their hands after caring for the patient.
6. See that all food is covered to protect it from flies.
7. Hands should be washed after defaecation and before handling food.
8. See that all eating utensils especially those used by the patient are properly washed.

- | | | |
|--------|--|---|
| 3.2.2 | Fever with or without rigors | 1. Isolate the patient. |
| 3.2.3 | Rash with fever | 1. Isolate the patient.
2. Keep the patient in bed in a darkened room.
3. See that any dressings which have been in contact with the patient are burned or buried.
4. See that soiled clothing or linen of the patient is washed, boiled and dried in the sun. |
| 3.2.4 | Cough and cold | 1. Isolate the patient especially from young children.
2. Teach people not to spit or clear the nose indiscriminately.
3. Teach people to cover the nose when sneezing or coughing. |
| 3.2.5 | Discharging eyes | 1. Ensure that no one else uses the patient's towel, handkerchief or surma stick.
2. Teach people not to allow flies to settle on the eyes and face. |
| 3.2.6 | Discolouration of skin with loss of sensation | 1. Isolate the patient especially from children. |
| 3.2.7 | Stiffness of neck | 1. Isolate the patient. |
| 3.2.8 | Lock jaw | 1. Keep the patient in bed in a quiet place. |
| 3.2.9 | Paralysis or weakness of limbs in children | 1. Keep the patient in bed.
2. Where sanitary latrines do not exist, see that the stool is buried so that flies do not settle on it. |
| 3.2.10 | Sore on the genital organs with or without discharge | 1. Tell the patient to avoid sexual intercourse until cured. |

Start treatment of those signs and symptoms which are within your competence to treat. See Chapter 11 for details.

3.3 Educate the community about the prevention and control of communicable diseases

There are certain steps which can be taken in order to prevent communicable diseases from occurring. You should educate the community about the need for taking the following measures:

1. Immunization against tuberculosis, diphtheria, whooping cough, tetanus, poliomyelitis, smallpox, cholera and typhoid
2. Proper disposal of solid waste, liquid waste and refuse
3. Safe drinking water
4. Latrine construction
5. Food hygiene
6. Control of mosquitoes, flies and other insects
7. Control of rats
8. Destruction of stray dogs
9. Prevention of overcrowding
10. Personal hygiene and clean habits.

In addition you should tell the community to inform you immediately there is a case with any of the signs or symptoms mentioned. You should teach them what specific precautions they should take to control the spread of disease (see Section 3.2).

CHAPTER 4

Environmental Sanitation and Personal Hygiene

4.1 Chlorinate drinking water sources at regular intervals

Most people do not boil water before drinking it. Therefore, it is very important that the source of drinking water should be safe.

Common sources of drinking water in rural areas are:

- (i) Ponds
- (ii) Tanks and reservoirs
- (iii) Rivers, streams and canals
- (iv) Lakes
- (v) Wells.

Sources of drinking water can be polluted in the following ways:

1. By people defaecating near or in the source
2. By people bathing in the water
3. By people washing clothes and household utensils in or near the water
4. By washing animals in or near the water
5. By building latrines or soakage pits near the source of drinking water
6. By storing water in unclean or uncovered containers
7. By using contaminated vessels to draw the water.

Water polluted by human excreta can cause several diseases most of which are characterized by diarrhoea and vomiting, e.g., cholera and typhoid. Intestinal worms can also be transmitted through water polluted by human excreta.

The usual way of ensuring a safe drinking water supply is to chlorinate the water source as chlorine is the most reliable disinfectant for large scale use.

Open wells should be chlorinated once a week. Chlorination of ponds, tanks and other water sources is not carried out as a routine but is undertaken during epidemics in which the water source is responsible.

Your duties with regard to chlorination of drinking water sources are as follows:

1. Find out the number and location of the drinking water sources in your area.
2. Keep an adequate supply of bleaching powder in pots with responsible members of the community who live near the drinking water sources.
3. Consult the Health Worker (Male) as to the quantity of bleaching powder to be used to chlorinate each source.
4. Chlorinate the wells in your area every week.

Materials required:

- (i) Bleaching powder
- (ii) Bucket of an adequate size
- (iii) Rope or chain of an adequate length.

Proceed as follows:

1. Mix the required amount of bleaching powder in a bucket three fourths full of water.
2. Fix the rope or chain to the bucket handle and lower the bucket containing the solution in the well.
3. Shake the bucket to ensure proper mixing, taking care that the bottom of the well is not disturbed.

4.2 Keep a record of the number of wells chlorinated

Enter the following information in your register: (1) Date of chlorination. (2) Location of well. (3) Amount of bleaching powder used.

4.3 Assist the Health Worker (Male) in arranging for the construction of the following:**4.3.1 Soakage pits**

Soakage pits provide a hygienic method of disposal of waste water. They are cheap and easy to construct.

A soakage pit is a dug out space filled with stones or overburnt bricks. The waste water from the house is led through a drain to the soakage pit and seeps gradually into the ground. This reduces the danger of polluting wells in the vicinity.

Your responsibilities are as follows:

1. Find out which families in your area would like a soakage pit to be constructed and inform the Health Worker (Male).
2. Collect persons who are willing and able to help in constructing the soakage pit, e.g., by digging or by carrying stones.
3. Assist the Health Worker (Male) in getting the community members to construct the soakage pit (see Fig. 4.1) as follows:

Dig a pit 2 metres deep and 1.5 metres square or 1.5 metres in diameter. Divide it vertically into three equal portions. The lowest portion is filled with stones or preferably overburnt bricks of $\frac{3}{4}$ size. The middle portion is filled with bricks of $\frac{1}{2}$ size and the uppermost portion with bricks of $\frac{1}{4}$ size. This is covered by a layer of earth.

The opening is protected by a parapet 10 cm. high to prevent rain water from entering the pit.

The house drain should join the soakage pit through a pipe opening into the middle of the pit after passing through a basket filled with straw or leaves which serves as a filter. The contents of this basket are periodically removed and replaced by fresh dry straw or leaves.

The soakage pit should be disconnected by blocking the drain during the rainy season.

After a certain period the soakage pit becomes 'sewage sick' and will start overflowing. The pit has to be emptied, and the stones or bricks washed, dried and replaced.

Soakage pits cannot be used in water-logged areas.

4.3.2 Kitchen gardens

If the household is small, the amount of waste water is limited and can easily be disposed of by leading it into a kitchen garden. In such a garden vegetables and fruit can be grown which could be used by the family to improve their nutrition.

Your responsibilities are as follows:

1. Find out which families in your area would like to start a kitchen garden and inform the Health Worker (Male).
2. Assist the Health Worker (Male) in getting the family to construct a kitchen garden and supervise its construction.
3. See that the family keeps the drain leading from the house to the kitchen garden clean so that the water flows freely.
4. Seek the advice of the agricultural workers in your area as to which fruits and vegetables are suitable for starting and maintaining a kitchen garden.

4.3.3 Compost pits

Animal manure and solid household waste can be hygienically disposed of by composting. An advantage of this method is that the resulting compost serves as a useful fertilizer.

Your responsibilities are as follows:

1. Find out which families in your area would like to construct a compost pit and inform the Health Worker (Male).

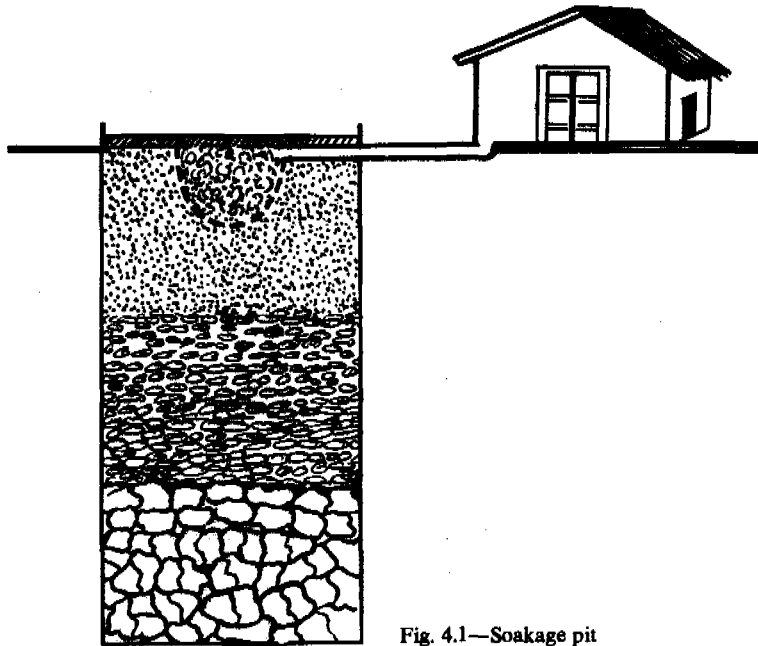


Fig. 4.1—Soakage pit

2. Assist the family in constructing a compost pit as follows:
 - (a) The pit should be near the house but away from the water source.
 - (b) Dig a pit 4 metres \times 3 metres \times 1.25 metres or 3 metres \times 2 metres \times 1 metre.
 - (c) Instruct the family to fill the pit with layers of refuse and cowdung in the ratio of 3 to 1 by volume until the whole content of the pit reaches 30 cm above ground level. The uppermost layer should consist of refuse.
 - (d) Leave the filled pit for six months after which the compost can be used as fertilizer.
 - (e) When the pit is full, dig another pit.

4.3.4 Sanitary latrines

Unhygienic disposal of human excreta leads to disease transmission through:

- (i) Flies settling on food
- (ii) Drinking polluted water
- (iii) Eating contaminated raw vegetables
- (iv) Walking barefoot.

In rural areas the proper disposal of human excreta by the use of sanitary latrines is primarily the responsibility of the house owner. Sanitary latrines must be:

- (i) Simple
- (ii) Easy to construct with locally available materials
- (iii) Cheap
- (iv) Easy to maintain
- (v) Acceptable to the user
- (vi) Able to provide adequate shelter from the sun, wind and rain
- (vii) Able to provide the desired privacy.

A sanitary latrine is a water-seal type of latrine, e.g., the RCA or PRAI pattern (see Fig.

4.2).

Your responsibilities are as follows:

1. Find out which households in your area require latrines.
2. Find out whether these householders wish to construct a latrine and inform the Health Worker (Male).
3. Assist the household in procuring from the Block Development Officer the materials for constructing the latrine.

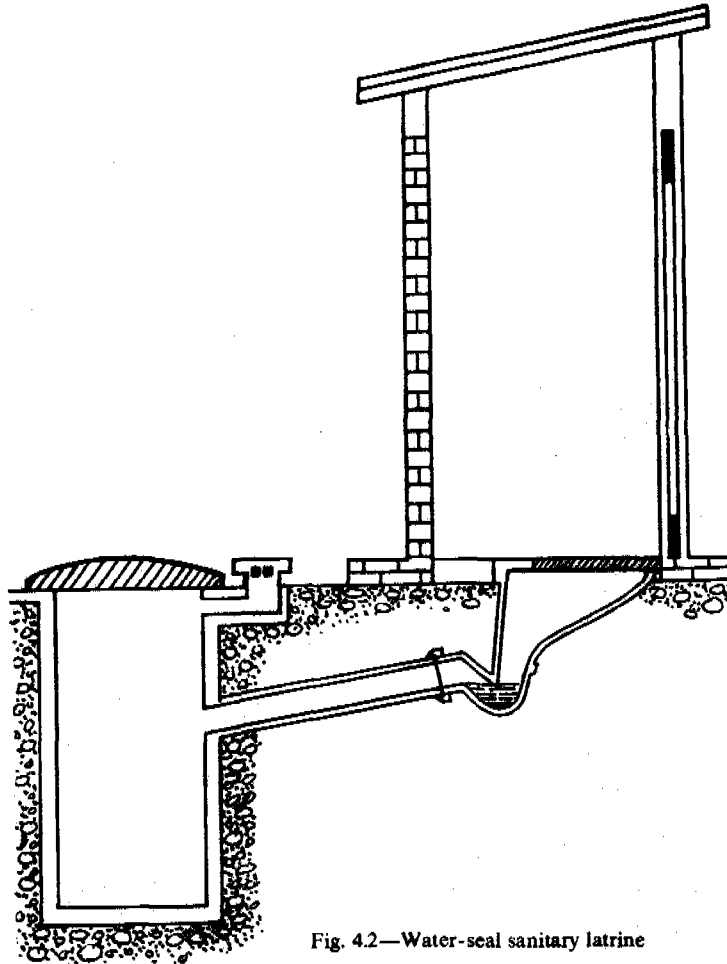


Fig. 4.2—Water-seal sanitary latrine

4. Carry out instructions given to you by the Health Worker (Male) or the Block Development Officer.
 5. Ensure that the latrine is properly used and maintained.
- A well maintained latrine will have the following characteristics:
- (i) The excreta is not exposed to flies and other insects, and is not accessible to animals.
 - (ii) It is free of any offensive odour.
 - (iii) It is not unsightly.

4.3.5 Smokeless chulhas

Smoky kitchens are not only uncomfortable to work in but are a health hazard as the irritation of the eyes caused by the smoke predisposes to eye infections. Besides this, the open chulhas consume more fuel and the smoke discolours and damages the walls.

This smoke nuisance can be avoided by the use of a smokeless chulha in which the smoke is led out of the kitchen through a chimney (see Fig. 4.3).

The chulha is about 75 cm × 40 cm × 20 cm and is built of mud mixed with straw. The chimney is made of clay pipes 10 cm in diameter placed one over the other and tapering to 8.75 cm at the top. The chimney projects beyond the roof by 60 cm, and rain water is prevented from entering it by placing a cowl over the outer end.

4.4 Educate the community about the following:

4.4.1 Safe drinking water

1. If water from unprotected sources is consumed, it can lead to diarrhoeal diseases, typhoid and cholera.

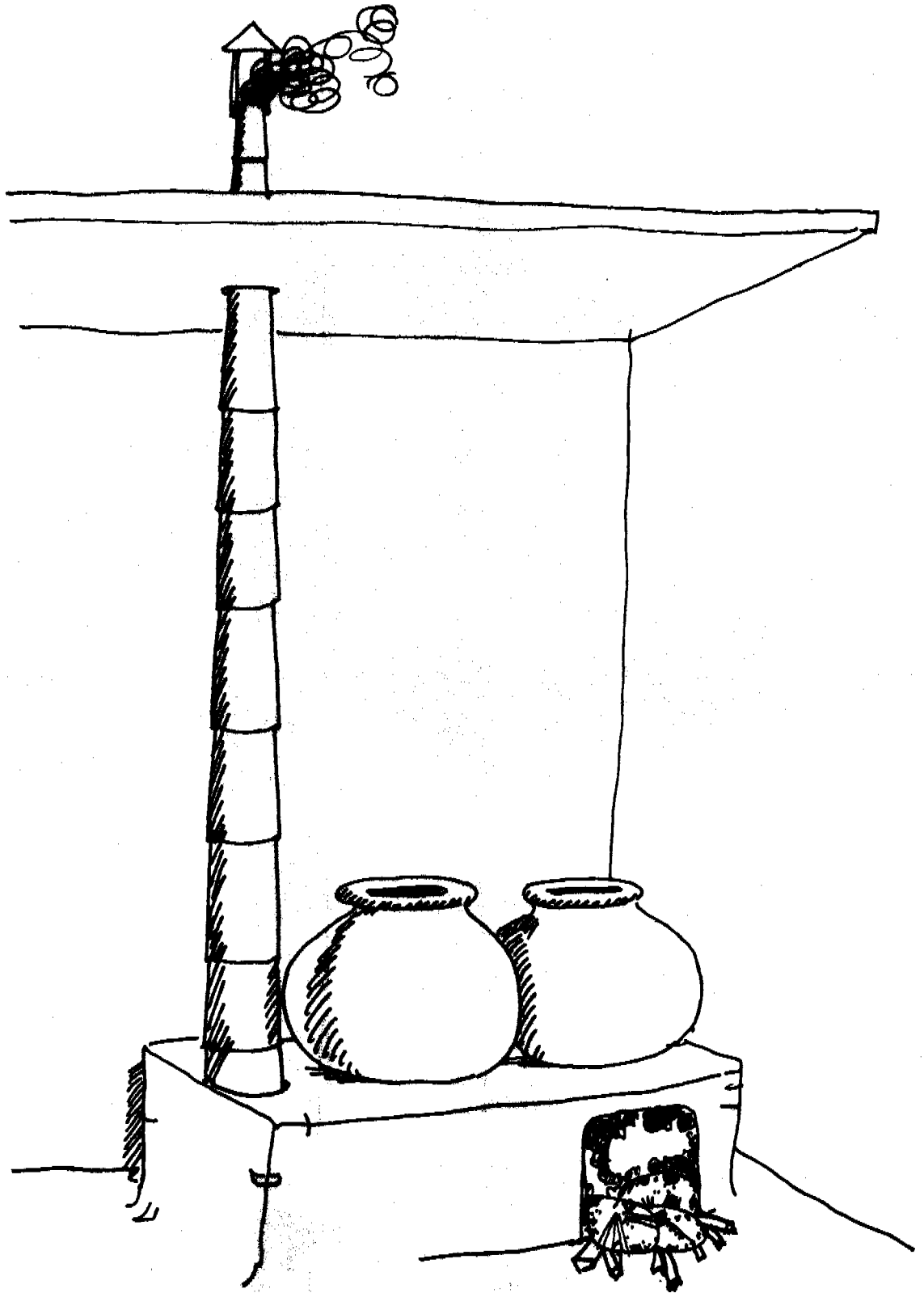


Fig. 4.3—(a) Smokeless chulha

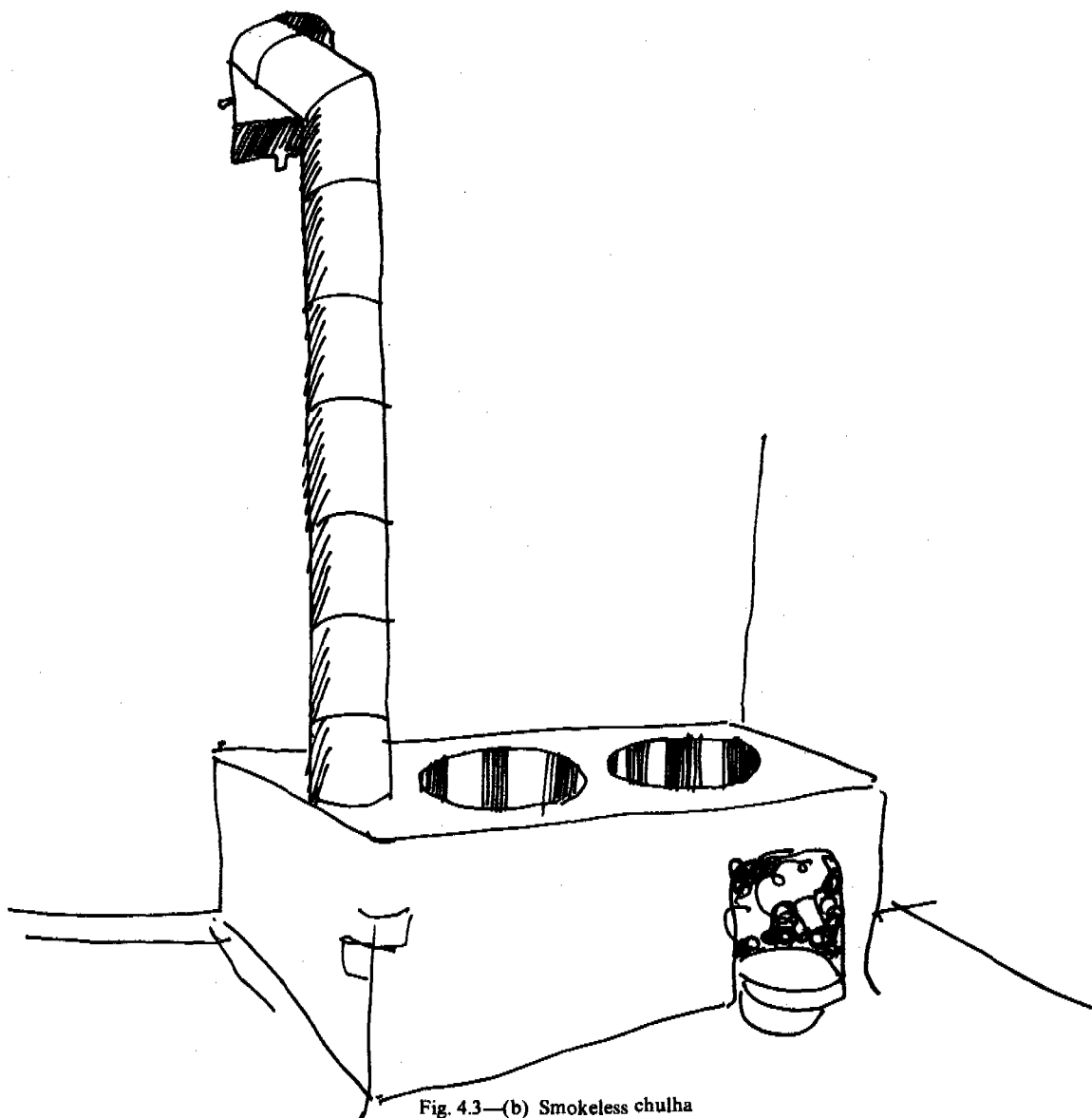


Fig. 4.3—(b) Smokeless chulha

2. Water collected from ponds, tanks, etc. which have not been chlorinated should be boiled before drinking. This is particularly so during the rainy season.
3. Wells should be protected from contamination by:
 - (a) Constructing a parapet 1 metre high around the well
 - (b) Constructing a platform 2 metres around the well sloping downwards to the outside
 - (c) Constructing a gutter around the outer edge of the platform to lead the waste water to a soakage pit
 - (d) Using a clean bucket on a pulley for drawing water
 - (e) Not washing clothes and utensils nor bathing near the well
 - (f) Not allowing the well to fall into disrepair.

See Fig. 4.4 showing a sanitary open well.

4. Although chlorinated water tastes different it is safe to drink.
5. Water should be stored in clean containers and drawn in a hygienic way (see Fig. 4.5).
6. It is the responsibility of the whole community to see that their sources of drinking water are kept clean.

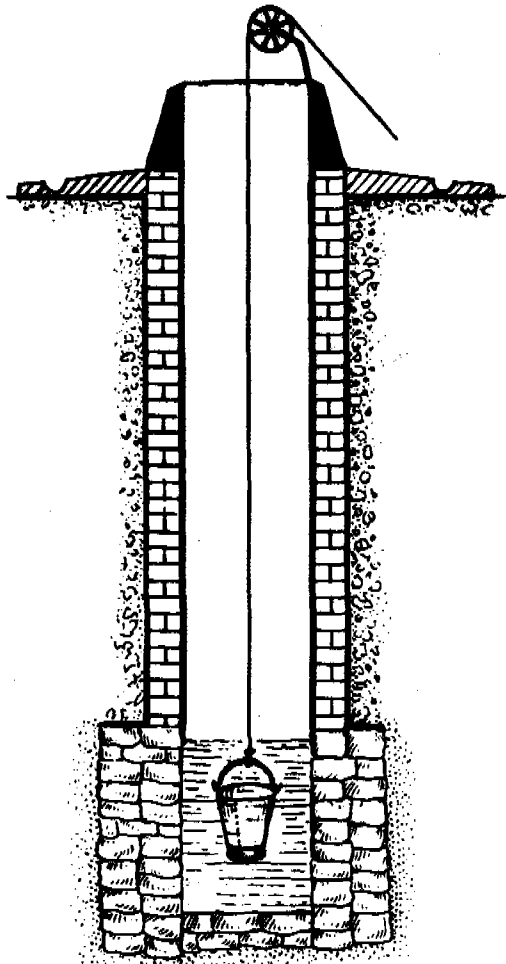


Fig. 4.4—Sanitary open well

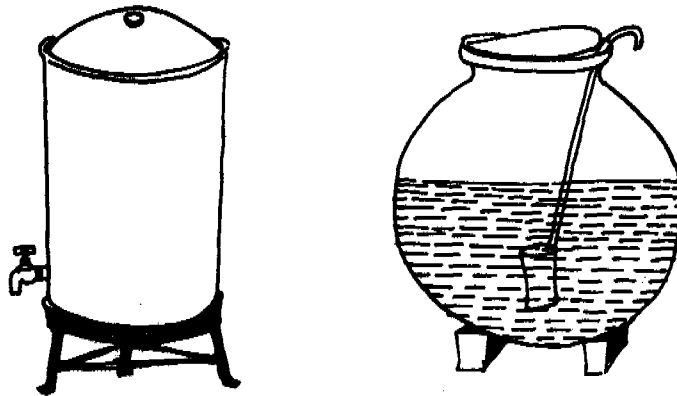


Fig. 4.5—Storing and drawing water

4.4.2 Hygienic methods of disposal of liquid waste

1. Water collections around the houses are a health hazard as they lead to mosquito breeding.
2. Collections of waste water give rise to unpleasant odours.
3. Waste water can be safely disposed of by constructing:
 - (a) Soakage pits
 - (b) Kitchen gardens.

4.4.3 Hygienic methods of disposal of solid waste

1. Indiscriminate collections of refuse lead to fly breeding, attract rats and dogs, are unsightly, and cause unpleasant odours.
2. Refuse should not be dumped in drains as the drains become choked and produce stagnant water collections which lead to mosquito breeding.
3. Refuse should be properly disposed of by composting, burying or burning.
4. The advantage of composting is that the compost serves as a good fertilizer.

4.4.4 Home sanitation

1. A clean home leads to good health and the absence of disease.
2. The characteristics of a healthy home are as follows:
 - (a) It is well built with a tin roof.
 - (b) The floors and walls are smooth and can be easily cleaned.
 - (c) The house is well ventilated.
 - (d) There is sufficient natural light and sunshine.
 - (e) It has a sanitary latrine.
 - (f) The waste water leads to a soakage pit or a kitchen garden.
 - (g) If the house does not have its own well, there are hygienic arrangements for water storage.
 - (h) There is a compost pit or a place for burying or burning refuse.
 - (i) Poultry and livestock are kept in a separate place away from where the people live.
 - (j) The kitchen is free from smoke.
 - (k) Food and grain are stored properly so that insects and vermin cannot reach them.
 - (l) There is no overcrowding.
3. The house should be cleaned regularly and whitewashed periodically.

4.4.5 Kitchen gardens

1. A kitchen garden can provide fruit and vegetables for improving the nutrition of the family.
2. It provides a hygienic way of disposing of waste water from the house.
3. It is cheap to construct.

4.4.6 Advantages and use of sanitary latrines

1. Indiscriminate disposal of excreta leads to disease and fly breeding.
2. A sanitary latrine is a safe and hygienic way of disposing of human excreta.
3. A sanitary latrine must be maintained in good condition as follows:
 - (a) The water seal should be sufficient.
 - (b) The latrine should be cleaned regularly.
 - (c) The latrine should not be blocked by throwing rubbish into it.
 - (d) The latrine floor and superstructure should be kept in a good state of repair.
 - (e) When the latrine pit is full the second pit has to be used. The filled pit is left for six months after which it is to be emptied and the contents used as manure. The pit is then ready to use again.
4. Use of a sanitary latrine should become a way of life in the community.

4.4.7 Advantages of smokeless chulhas

1. The use of a smokeless chulha prevents the accumulation of smoke in the kitchen which causes irritation of the eyes and eye infection.
2. The use of smokeless chulhas can help in having a neat and clean kitchen in every village home.
3. The smokeless chulha is simple and cheap to construct.
4. The consumption of fuel (firewood or cowdung) in a smokeless chulha is less than in an open smoky chulha.

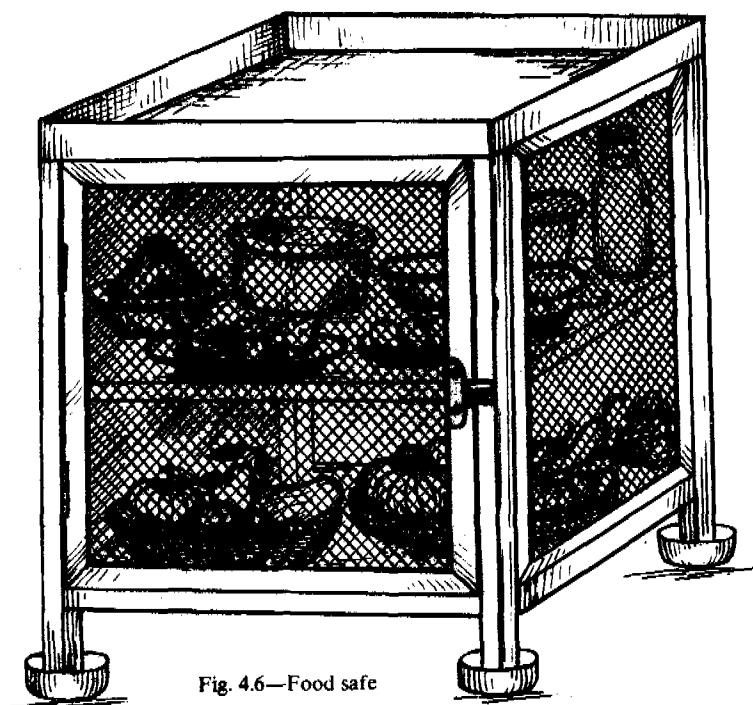


Fig. 4.6—Food safe

4.4.8 Food hygiene

1. Food in rural areas is in short supply and its proper storage is important to protect it from being eaten by rats and from being contaminated by flies and other insects.
2. Food should be stored in a well-ventilated place.
3. Food should be kept covered or in a food safe (see Fig. 4.6).
4. Food which is to be eaten raw, e.g., fruit and vegetables, should be washed well with clean water before eating.
5. Cooked food should not be stored for too long as it breeds disease germs and can cause diarrhoea and vomiting.
6. Grain should be stored in closed, rat-proof bins.

4.4.9 Control of insects, rodents and stray dogs

1. Some insects are responsible for causing certain diseases. Some of these are as follows:

(a) Mosquitoes	Malaria Filariasis (<i>elephantiasis</i>)
(b) Flies	Cholera Typhoid Dysentery Diarrhoea Trachoma
(c) Fleas	Plague
(d) Sandflies	Kala azar

2. It is necessary to prevent breeding of these insects in the following ways:

- | | |
|------------------|--|
| (a) Mosquitoes . | (i) Removing all stagnant water collections, e.g., in pot holes, tins or old tyres |
| | (ii) Using spraying and larvicidal measures |
| (b) Flies | (i) Disposing of refuse properly |
| | (ii) Using sanitary latrines |
| | (iii) Constructing hygienic compost pits |
| | (iv) Using insecticides wherever possible |

- (c) Fleas
 - (i) Exposing bedding to sun light
 - (ii) Keeping domestic animals and poultry clean
 - (iii) Preventing rats from coming near human habitations
 - (iv) Using insecticides wherever possible
 - (d) Sandflies
 - (i) Preventing crevices and cracks in walls and floors by filling and plastering
3. Besides consuming and spoiling food, rats carry serious diseases such as plague. Rats breed very rapidly. It is, therefore, necessary to control the rat population in the following ways:
 - (a) Proper disposal of refuse
 - (b) Storing food and grain in rat-proof containers
 - (c) Poisoning, trapping or killing the rats.
 4. Stray dogs are a hazard because they bite and they can carry rabies.
 5. There is no cure for rabies and, therefore, it is essential that stray dogs are destroyed.
 6. Domestic animals should be prevented from coming into contact with stray dogs and jackals.

4.5 Educate the community about the importance of personal hygiene

1. In order to remain healthy one must develop clean personal habits.
2. Healthy teeth are essential for proper nutrition. They must, therefore, be carefully looked after to avoid decay. This can be done by:
 - (a) Daily brushing to remove food particles
 - (b) Rinsing the mouth after each meal
 - (c) Reporting to the Health Worker if a person has a toothache.
3. The hair should be combed once or twice every day and must be washed at least once a week or more often during the hot weather in order to keep it clean and free from lice.
4. Mothers should inspect their children's hair every day preferably with a fine-toothed comb, so that any lice or nits can be detected early and removed.
5. Lice can be removed in the following way:
 - (i) Cut the hair short if possible.
 - (ii) Wash the hair with soap and hot water.
 - (iii) Apply to the scalp:
 - kerosene full strength or vinegar full strength or benzyl benzoate emulsion.
 - (iv) Cover the whole head with a cap or scarf overnight.
 - (v) Next morning comb the hair with a fine-toothed comb and remove lice and nits.
 - (vi) Wash the hair with soap and hot water.
 - (vii) Repeat the treatment until no lice or nits remain.
6. A dirty skin is likely to get infected with pimples, boils, sores, scabies, or ringworm. It is, therefore, important to bathe daily using soap and water.
7. Clothes should be washed frequently and dried in the hot sun.
8. Hands should be washed with soap and water after defaecation, before preparing or serving food, and before meals. Nails should be kept short and clean. This will prevent worm infestation and diarrhoeas.
9. Eye infections can be prevented by the following:
 - (a) Avoiding the use of common towels or handkerchiefs for wiping the eyes
 - (b) Avoiding the use of common sticks for applying surma or kajal to the eyes
 - (c) Not exposing the eyes to dust and smoke
 - (d) Not allowing flies to settle on the face and eyes.
10. Spitting indiscriminately and coughing or sneezing without covering the nose and mouth are not only dirty habits but are dangerous because they can cause the spread of tuberculosis. They should, therefore, not be done.
11. It is dangerous to poke sticks or hairpins into the ears to remove wax, as this can cause injury or infection of the ear. This habit should be avoided.

Immunization

Immunization is a special procedure which protects a person against specific diseases. The most commonly used immunizations are those against the following diseases:

1. Diphtheria
 2. Whooping cough
 3. Tetanus
 4. Smallpox
 5. Tuberculosis (BCG)
 6. Poliomyelitis
 7. Cholera
 8. Typhoid (TAB).
- } (DPT)

Usually these immunizations are given to selected groups, i.e., pregnant women, newborns and children. However, during epidemics, everyone in the community is immunized.

5.1 Assist the Health Worker (Male/Female) in arranging for immunization

You should assist the Health Worker (Male/Female) in the following ways:

1. Find out a suitable date for immunization from the leaders of the village and inform the Health Worker.
2. Suggest to the Health Worker a central, shady place for holding the clinic so that it is easily accessible to all.
3. Get the community to provide the following:
 - (a) A stove or chulha, fuel, and large vessels for sterilizing equipment as needed
 - (b) Pieces of gunny sack and earthen pots for cooling the vaccine container (see Fig. 5.1)

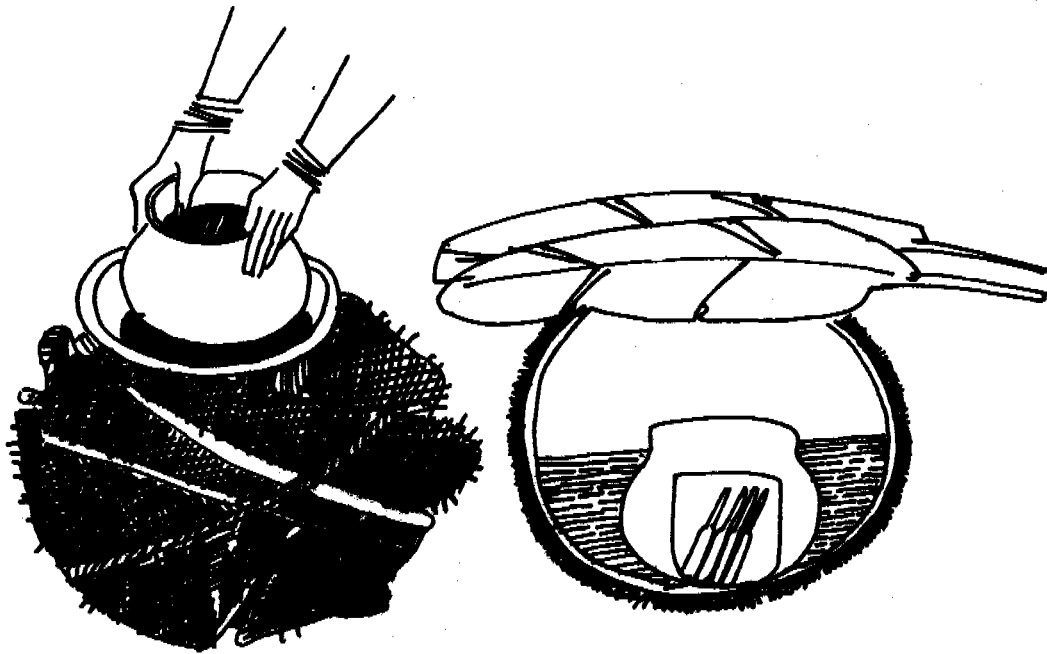


Fig. 5.1—Keeping vaccines cool

- (c) A table for equipment
 - (d) Mats or charpoys for seating
 - (e) Adequate supply of drinking water
 - (f) Handwashing facilities.
4. Prepare a list of persons to be immunized according to instructions given by the Health Worker.
 5. Visit the homes on the day before the scheduled date for immunization to remind families where and when to assemble.
 6. Greet those who come for immunization and see that they are taken for immunization according to their turn.
 7. Keep aside those who are obviously sick or who have a skin disease so that the Health Worker can examine them.
 8. Ask the person to be vaccinated or the adult accompanying a child who is to be vaccinated to uncover the immunization site.
 9. Clean the immunization site as instructed by the Health Worker.
 10. Assist the Health Worker as required during the immunization.
 11. Follow up the persons vaccinated according to the instructions given by the Health Worker.

5.2 Educate the community about immunization against diphtheria, whooping cough, tetanus, smallpox, tuberculosis, poliomyelitis, cholera and typhoid

People generally refuse immunization because of the reactions which may occur and which make them feel ill. You should tell the community that this reaction occurs because the body is developing resistance to the disease.

Emphasize the following points in your talks with the community:

1. Diphtheria, whooping cough, and tetanus (DPT)

- (a) All children 0 to 5 years should be protected against these diseases by giving them *three doses* of DPT vaccine by injection. These children should also be given a booster dose between 1½ to 2 years of age.
- (b) After 5 years of age or on entry to school, children should be given another booster dose (without whooping cough vaccine).
- (c) Manure carries tetanus germs and, therefore, anyone in the village who injures himself should have an injection against tetanus.
- (d) All pregnant women should receive *two doses* of tetanus toxoid so as to protect them and their babies from tetanus.
- (e) After DPT vaccination, there is usually slight fever and headache for one or two days. This is relieved by APC tablets.

2. Smallpox (see Chapter 2)

3. Tuberculosis (BCG)

The most common form of tuberculosis is that which affects the lungs and which is transmitted through indiscriminate coughing and spitting of infected sputum. The disease can be controlled by immunization of young children with BCG vaccine. The points to be emphasized are as follows:

- (a) Children must be given BCG vaccination within the first year of life in order to protect them against tuberculosis.
- (b) BCG vaccination is a simple, safe procedure which consists of injecting a small amount of vaccine just under the skin.
- (c) If a scar does not form at the BCG vaccination site within 3 months, the parent should report this because it means that the child is not protected against tuberculosis.

4. Poliomyelitis

- (a) Poliomyelitis is a serious disease which can paralyse and cripple the person but it can be prevented by oral poliomyelitis vaccine.
- (b) The vaccine is usually given to infants between the ages of three and six months.
- (c) The vaccine is given in the form of drops placed in the mouth.
- (d) For full protection, the child needs to have 3 doses given at 4 to 6 weeks intervals.
- (e) To maintain the protection a booster dose is necessary within 4 or 5 years after the initial vaccination is received.
- (f) Breast feeding must be avoided for 4 to 6 hours before and after an infant is given the vaccine. However, the baby can be given other food and fluids provided it is not served hot.

5. Cholera

Cholera is a serious disease transmitted through contaminated water, milk or food. If treatment is not given immediately, the patient can die within a few hours.

Cholera vaccine is not given as a routine but it is given to the entire community when there is an outbreak of the disease.

The points to emphasize are as follows:

- (a) When there is an outbreak of cholera, it is essential that every member of the community receives vaccination.
- (b) The vaccination is given in two doses 10 days apart.
- (c) After vaccination there is usually pain and swelling at the vaccination site accompanied by fever and headache. This can be relieved by APC tablets.

6. Typhoid (TAB)

Typhoid is a serious disease transmitted through contamination of water, milk or food. Vaccination of children aged 5 to 15 years is carried out in those areas where typhoid is known to occur.

Points to be emphasized are as follows:

- (a) In areas where typhoid is known to occur, the disease can be prevented by taking TAB vaccination regularly.
- (b) TAB vaccine is given in two doses 10 days apart. Revaccination is given every year.
- (c) After TAB vaccination the person has pain and swelling at the vaccination site accompanied by fever and headache. This can be relieved by APC tablets.

CHAPTER 6

Family Planning

6.1 Spread the message of family planning to the couples in his/her area and educate them about the desirability of the small family norm

Explain to the community why family planning is necessary and what are the goals of the family planning programme.

1. Frequent pregnancies can lead to ill health of the mother, the birth of small and weak babies, neglect of the children, and lowering the economic standards of the family. It is, therefore, important that the small family norm should become an accepted part of the way of life and a means of improving the health and welfare of the family and of the community.
2. The goals of the family planning programme are as follows:
 - (a) To promote the idea of the small family among all married couples
 - (b) To spread information to all eligible couples about family planning methods available. (Note: An eligible couple is one in which the wife is between 15 and 44 years of age)
 - (c) To provide family planning services within easy reach of all eligible couples
 - (d) To provide facilities for Medical Termination of Pregnancy to those who request it.

The ways in which you can assist the Health Worker (Male/Female) in spreading the message of family planning include the following:

- (a) Talking with individual members of the community including the leaders in the village
- (b) Selecting suitable sites for putting up posters and wall paintings
- (c) Assisting in putting up posters and wall paintings
- (d) Distributing pamphlets to those who can read
- (e) Assisting the Health Worker at group meetings, mass meetings, film shows or exhibitions by:
 - (i) helping in selecting a central site
 - (ii) informing the community of the place, date and time of the activity
 - (iii) helping to maintain order among the audience
- (f) Following up these activities by giving further information required by members of the community, or correcting wrong ideas they may have about the programme
- (g) Counteracting any adverse comments or rumours prevailing in the community and keeping the Health Worker informed about these.

6.2 Educate the people about the methods of family planning which are available

The purpose of using a family planning method is to prevent conception. Some methods are to be used by men while others are to be used by women. Some methods such as oral contraceptives or nirodh have to be used repeatedly whereas others such as vasectomy and tubectomy are carried out only once.

The points to be emphasized about each method are as follows:

A. Methods for women

1. Intra-uterine Device (IUD—Lippes loop or Copper-T)

- (a) This is a small, plastic device which is inserted in the uterus and which prevents pregnancy as long as it is in place (*see Fig. 6.1*).

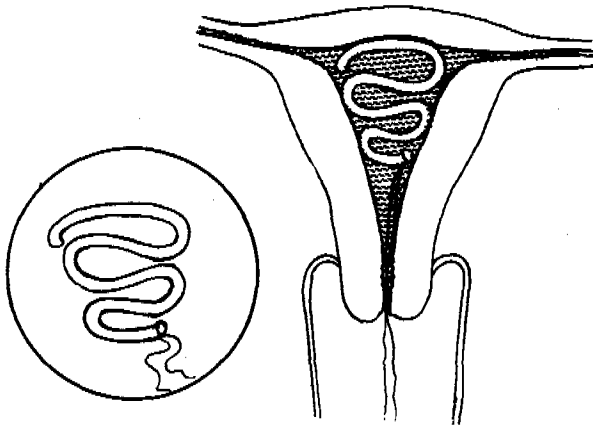


Fig. 6.1—(a) Lippes loop in uterus

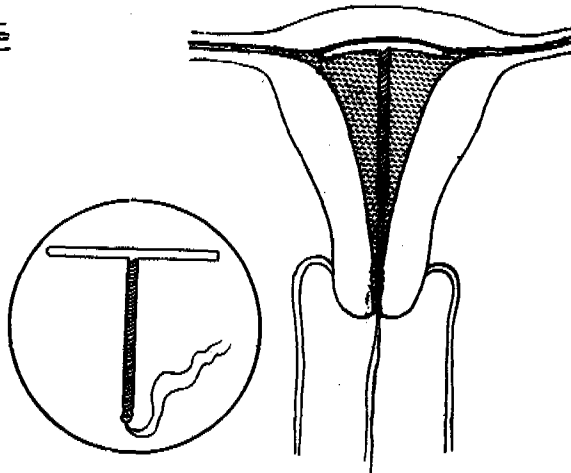


Fig. 6.1—(b) Copper T in uterus

- (b) The advantages of this method are as follows:
- (i) It is a reliable method for spacing children.
 - (ii) It does not interfere with sexual intercourse.
 - (iii) The woman does not have to be admitted to hospital to have an IUD inserted.
 - (iv) It can be removed whenever a pregnancy is desired.
- (c) The limitations of this method are as follows:
- (i) Soon after insertion there may be some bleeding or pain. This usually disappears after treatment.
 - (ii) Before insertion the woman has to have a vaginal examination.

2. Oral contraceptives (the pill)

- (a) Oral contraceptives must be taken daily according to the prescribed schedule in order to prevent pregnancy.
- (b) The advantages of this method are as follows:
- (i) It is an effective method.
 - (ii) There is no interference with the sexual act.
 - (iii) Whenever a pregnancy is wanted the pill can be discontinued.
- (c) The limitations of this method are as follows:
- (i) The woman must be examined by a doctor before she is given the pill.
 - (ii) In the beginning she may have some discomfort while taking the pill, e.g., nausea, headache or irregular vaginal bleeding.
 - (iii) The woman may forget or neglect to take the pills in which case she is likely to become pregnant.

3. Foam tablets

- (a) These are tablets which are moistened and placed in the vagina just before intercourse to prevent conception.
- (b) The advantages of this method are as follows:
- (i) The method is simple.
 - (ii) It does not interfere with sexual intercourse.
 - (iii) No prior medical examination is required.
- (c) The limitations of this method are as follows:
- (i) It is not a reliable contraceptive method.
 - (ii) There is a time limit of about 15 minutes during which the foam tablet is effective.

- (iii) Sometimes the woman or the man may have a burning sensation in the sex organs after using the foam tablets.
- (iv) Unless they are properly stored, the tablets get spoilt and do not foam.

4. Jellies and creams

- (a) These can be used alone by the woman or they can be used along with a nirodh. The jelly is filled in a special applicator provided which is then inserted deep into the vagina (see Fig. 6.2).
- (b) The advantages of this method are as follows:
 - (i) It is easy to use.
 - (ii) No prior medical examination is required.

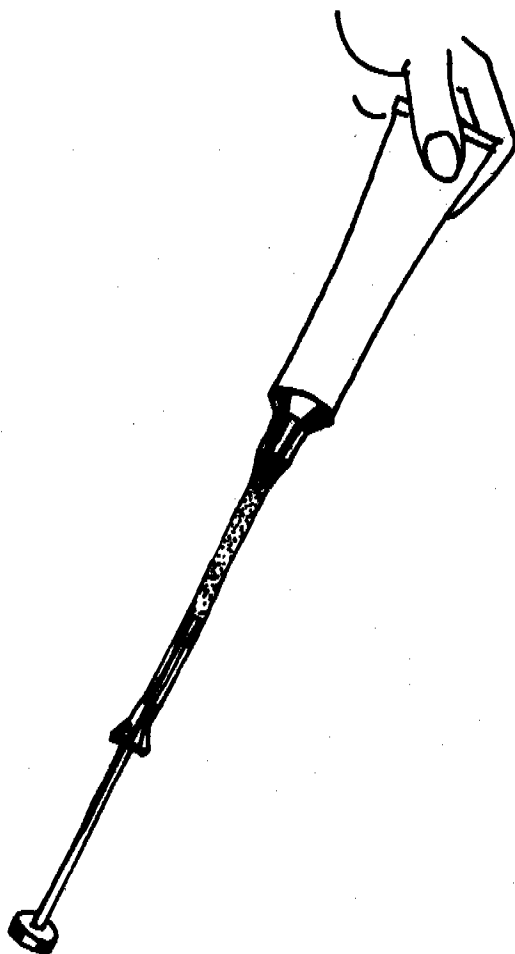


Fig. 6.2—(a) Filling the applicator



Fig. 6.2—(b) Position for insertion of jelly

Fig. 6.2—Using contraceptive jelly

- (c) The limitations of this method are as follows:
- (i) When used alone it is not a very reliable method.
 - (ii) Following use of the jelly, there may be slight burning or vaginal discharge.

5. Rhythm method (safe period)

If a woman does not wish to use any contraceptive device, she can be advised to use the safe period method. In this method sexual intercourse can take place without resulting in conception only on certain days of the menstrual cycle. For details of this method, refer the woman to the Health Worker (Female).

6. Tubectomy

- (a) This is an operation in the woman in which the two tubes leading to the uterus are cut and tied so that the sperms cannot reach the eggs (see Fig. 6.3).
- (b) The operation can be done either soon after delivery or it can be done at any other time convenient to the woman.
- (c) Those selected for undergoing tubectomy should meet the following requirements:
 - (i) The woman should not be below 20 years or above 44 years or she should still be having her menstrual periods.
 - (ii) The husband should not be below 25 years or over 50 years.
 - (iii) The couple should have two or more living children.
 - (iv) The couple should not want any more children and should understand the full implications of sterilization.
- (d) The advantages of this method are as follows:
 - (i) Once the operation is done no further action is necessary to prevent conception.
 - (ii) The operation is done free of charge in any government hospital or Primary Health Centre.
- (e) The limitations of this method are as follows:
 - (i) The woman has to stay in hospital for about a week.
 - (ii) Although the results of the operation can be reversed by re-canalization, this is not always successful.

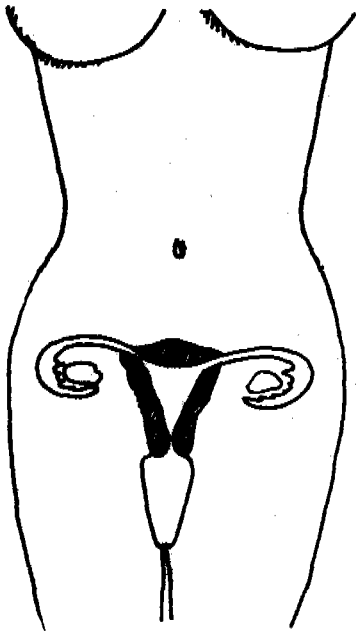


Fig. 6.3—(a) Position of uterus and tubes

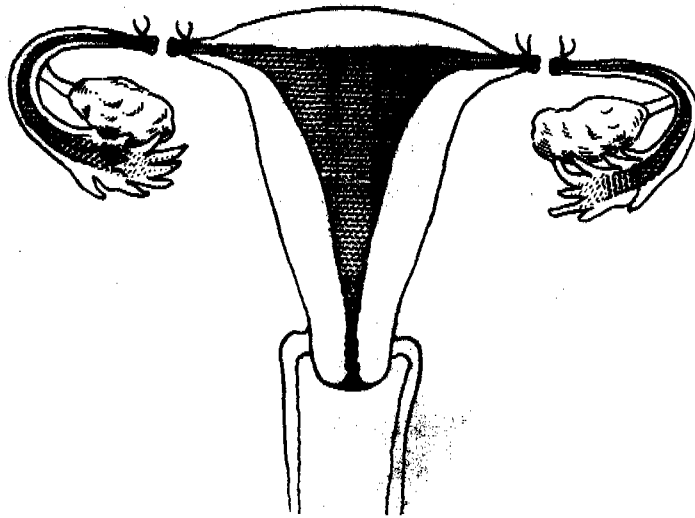


Fig. 6.3—(b) Tubectomy (tubal ligation)

(f) Some of the questions which you may be asked about tubectomy are as follows:

<i>Question</i>	<i>Answer</i>
(i) How long will I have to stay in the hospital after the operation?	For about one week, i.e., until the wound has healed and the stitches have been removed.
(ii) Will I have any pain or discomfort during or after the operation?	There will be no pain or discomfort during the operation, but for the first few days after the operation there may be some pain at the site. However, you will be given some medicine to reduce the pain.
(iii) When can I take a bath after the operation?	Once the stitches are removed, you can take a bath.
(iv) For how long must I rest after the operation?	You can walk about within 2 or 3 days after the operation and after 10 days you can do light work in the house. However, you should not carry heavy loads or do heavy manual work for at least 3 weeks after the operation.
(v) Will I stop menstruating after the operation?	No. Menstruation will take place as usual after the operation.
(vi) Will I become fat after the operation?	The operation itself does not cause any increase in weight.
(vii) When can I resume sexual relations after the operation?	After about 4 weeks.
(viii) Can the operation be reversed if later I want a child?	Yes, but this is a difficult operation and is not always successful.
(ix) If I have any problems after the operation what should I do?	If you have any fever, pain, swelling or vaginal discharge see the Health Worker (Female) or report to the Subcentre or PHC.

B. Methods for Men

1. Nirodh (Condom)

- (a) This is a thin rubber sheath (see Fig. 6.4) which is used to cover the penis during intercourse so that no sperms can enter the vagina.
- (b) The advantages of this method are as follows:
 - (i) It is simple to use.
 - (ii) It is reliable.
 - (iii) No examination by a doctor is required.
 - (iv) There are usually no complications with the use of nirodh.
 - (v) It protects against the spread of sexually transmitted diseases.
 - (vi) It is available free at the Subcentre or from the Health Worker (Male/Female) and at little cost from depot holders.
- (c) The limitations of this method are as follows:
 - (i) It may tear or slip off if not used properly.
 - (ii) Without self-discipline it may not be used every time.
 - (iii) It may interrupt intercourse as it has to be put on after erection.

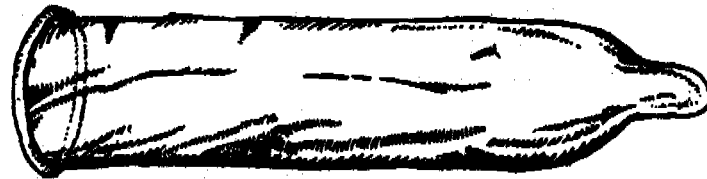
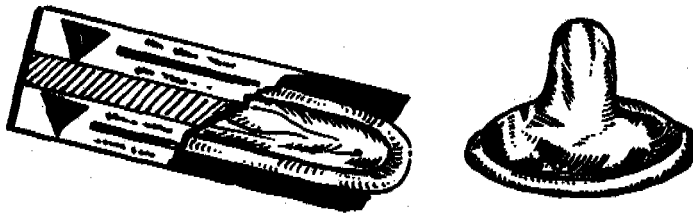


Fig. 6.4—Nirodh: rolled and unrolled

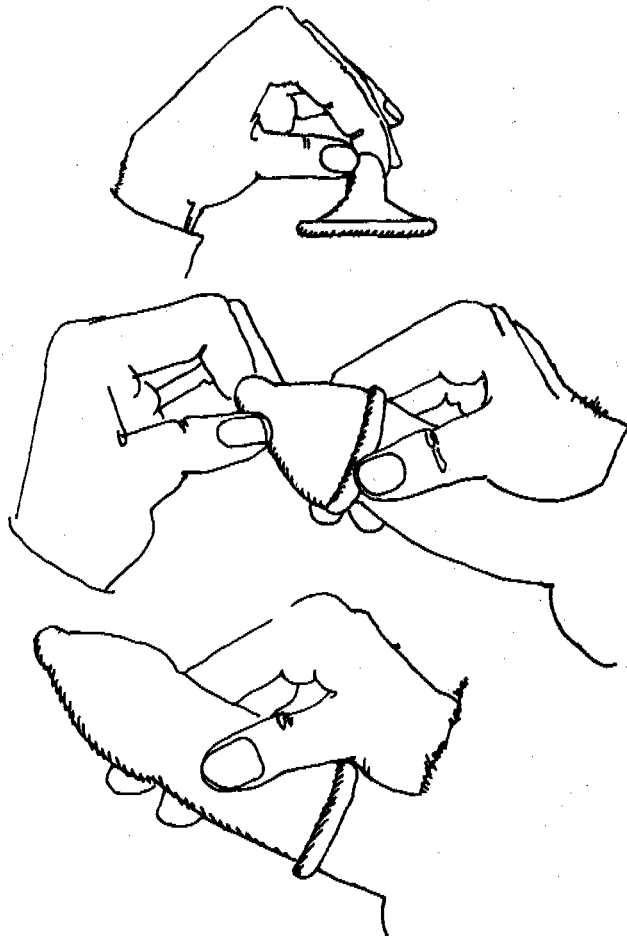


Fig. 6.5—Using the nirodh

- (d) The instructions for the user are as follows:
- (i) The nirodh must be put on the erect penis before intercourse.
 - (ii) The tip of the rolled up nirodh is pinched between the fingers and the nirodh is unrolled on to the penis (see Fig. 6.5).
 - (iii) The nirodh must be held carefully while removing it from the vagina in order to prevent spilling the semen into the vagina.
 - (iv) A new nirodh must be used for each sexual act.
 - (v) The used nirodh should be disposed of properly by wrapping it in paper and throwing it in the dust bin or refuse heap or burying it.

2. Withdrawal

- (a) If the couple do not accept any other method of contraception and do not wish to undergo sterilization, the man can be advised to use the withdrawal method. In this method the penis is withdrawn from the vagina just before ejaculation.
- (b) The advantages of this method are as follows:
- (i) No devices are necessary.
 - (ii) No cost is involved.
 - (iii) No prior medical examination is required.
- (c) The limitations of this method are as follows:
- (i) It is unreliable.
 - (ii) It can cause psychological disturbance in either the man or the woman.
 - (iii) The sexual act is interrupted.

3. Vasectomy

- (a) This is an operation done on the man. It consists in cutting and tying the two tubes that carry the sperms from the testes (see Fig. 6.6).

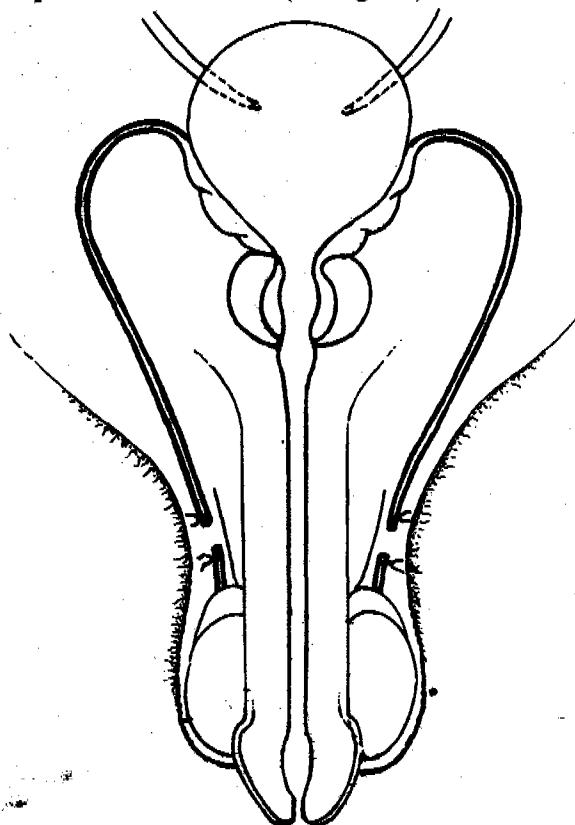


Fig. 6.6—Vasectomy (front view)

- (b) Those selected for undergoing vasectomy should meet the following requirements:
- (i) The man should not be below 25 years or above 50 years.
 - (ii) His wife should not be below 20 years or above 44 years or she should still be having her menstrual periods.
 - (iii) The couple should not want any more children and should understand the full implications of sterilization.
- (c) The advantages of this method are as follows:
- (i) After the initial 12 ejaculations following the operation, no further action is needed to prevent conception.
 - (ii) The man does not need to stay in the hospital after the operation.
 - (iii) It does not in any way interfere with sexual desire or with intercourse.
 - (iv) It is done free of charge in any government hospital or Primary Health Centre.
- (d) The limitations of this method are as follows:
- (i) Although the results of the operation can be reversed by recanalization, this is not always successful.
 - (ii) Nirodh has to be used for the first 12 ejaculations after vasectomy.
- (e) Some of the questions which you may be asked about vasectomy are as follows:

<i>Question</i>	<i>Answer</i>
(i) Is the operation painful?	No, you will be given an injection which will prevent pain.
(ii) Is the operation dangerous?	No, it is a simple operation and takes only a few minutes.
(iii) Will I be able to have normal sexual relations after vasectomy?	Yes. Sexual functioning is not affected by the operation.
(iv) Will my sexual desire be reduced after the operation?	No.
(v) When can I resume sexual relations after the operation?	After 7 days but you must use a nirodh for the first twelve times. After that no contraceptives are needed.
(vi) Will the operation reduce my capacity for physical or mental work?	No. However, you should avoid heavy physical work and cycling for one week after the operation.
(vii) Is there any special care that I have to take of the operation site?	Keep the site clean and dry and covered with a clean dressing. Wear a scrotal support (langot) for 3 to 4 weeks.
(viii) How soon after the operation can I take a bath?	Avoid taking a bath for at least 24 hours after the operation.
(ix) When will the stitches be removed?	On the fifth day after the operation you should visit the Subcentre where the stitches will be removed.
(x) If I have any problems what should I do?	If you have fever, swelling or pain, see the Health Worker (Male) or report to the Subcentre or Primary Health Centre.
(xi) Can the operation be reversed if later I want a child?	Yes, but this is a difficult operation and is not always successful.

In educating people to accept a family planning method, keep the following points in mind:

- (i) **Avoid exaggerating the effectiveness of any contraceptive method. Inaccurate information may lead to disappointment and create resentment.**

- (ii) Do not force people into accepting any method of family planning.
- (iii) Remember that the choice of a method of family planning is a purely personal and voluntary choice by the couple.

6.3 Act as a depot holder, distribute nirodh to the couples, and maintain the necessary records of nirodh distributed

A depot holder is a man or woman who agrees:

- (i) To store and dispense nirodh regularly to anyone requesting a supply
- (ii) To maintain records of the supply received and distributed
- (iii) To influence couples to become regular users.

As a depot holder you should carry out the following:

1. Obtain from the Health Worker (Male/Female) adequate supplies of nirodh and replenish the supply each month.
2. Store the nirodh in a box to protect them from damp and damage by rats.
3. Dispense nirodh to those couples requesting a supply.
4. Explain to the men how the nirodh is to be used.
5. Encourage acceptors to be regular users.
6. Maintain simple records and submit regular reports.
7. Inform the community about the use of nirodh as a method of family planning and the availability of supplies (see Section 6.2).
8. Use the available visual aids to help you explain about the use of nirodh.
9. Report problems related to the distribution, acceptance and use of nirodh to the Health Worker (Male/Female) for them to take the necessary action.

Keep two simple registers of nirodh obtained and distributed as follows:

- I. (1) Date. (2) Number of pieces of nirodh received. (3) Balance.
- II. (1) Date. (2) Name of user. (3) Number of pieces of nirodh dispensed.

Show these registers to the Health Worker (Male/Female) at the time when you receive supplies from him/her so that the information can be entered in the Eligible Couple Register. Each month submit the following information to the Health Worker (Male/Female):

- (1) Month and year. (2) Balance of nirodh pieces from previous month. (3) Number of nirodh pieces received during month. (4) Number of nirodh pieces distributed during month. (5) Balance of nirodh pieces at end of month. (6) Signature. (7) Address. (8) Date.

6.4 Inform the Health Worker (Male/Female) of those couples who are willing to accept a family planning method so that he/she can make the necessary arrangements

If you find any couples in the community who want to use a family planning method other than nirodh, give their names and addresses to the Health Worker (Male/Female) so that he/she can contact them. Inform the couples about the available facilities for family planning services which are as follows:

1. Intra-uterine devices will be inserted after a medical examination by the doctor at the Subcentre on his weekly visit, or at the Primary Health Centre.
2. Oral contraceptives will be prescribed by the doctor after a medical examination of the woman. Subsequent supplies can be obtained from the Health Worker (Male/Female) when he/she visits the village, or from the Subcentre or Primary Health Centre.
3. Supplies of foam tablets, creams and jellies can be obtained from the Health Worker (Male/Female) or from the Subcentre or Primary Health Centre.
4. If any couple wishes to use the rhythm method, they can get the necessary information from the Health Worker (Male/Female) about how to calculate the safe period.
5. If the woman wishes to have a tubectomy, the Health Worker (Female) will find out where and when the operation is to be done and will inform the couple about it. She will make the necessary arrangements for transport and, if possible, she will accompany the woman or else she will arrange for the dai to do so.

You, as a Community Health Worker, can help the Health Worker (Female) in the following ways:

- (i) Ask the woman to bathe and wear clean clothes before she goes for operation.
 - (ii) Tell her what to expect, viz., that the operation site will be shaved and antiseptic applied, that she will have an anaesthetic to prevent pain, and that she will be required to stay for about a week in the hospital.
 - (iii) Tell the husband to accompany his wife when she goes for the operation.
 - (iv) Help her to make temporary arrangements for the care of her children and home during her absence.
6. If the man wishes to have a vasectomy, the Health Worker (Male) will find out where and when the operation is to be done and will inform the couple accordingly. He will accompany the man to the place of operation.

You, as a Community Health Worker can assist the Health Worker (Male) in the following ways:

- (i) Tell the man to shave the part, bathe and wear clean clothes before going for the operation.
- (ii) Tell him what to expect, viz., that he will be given an injection to prevent pain, that the operation will be done on both sides, and that he will be completely conscious during the operation.
- (iii) Ask him to take his wife along if possible so that she can accompany him back after the operation.

6.5 Educate the community about the availability of services for Medical Termination of Pregnancy (MTP)

Under the provisions of the Medical Termination of Pregnancy Act (1971), any woman who wishes to terminate her pregnancy for any of the reasons specified in the Act can have this done by a doctor authorized to do so at a recognized institution.

Many women still do not know about this Act and still have abortions done by quacks or untrained persons, resulting in infection and sometimes death.

Your responsibilities include the following:

1. Give the community the following information:
 - (a) There is an Act of Parliament which provides for the termination of pregnancy under certain conditions.
 - (b) The operation is simple and without much risk if it is done within the first 10 weeks of pregnancy by a qualified person in an approved institution.
 - (c) Hospitalization is not always necessary and a woman can usually go home after the procedure when it is performed within the first 10 weeks of pregnancy.
 - (d) If a woman wants her pregnancy terminated after the 10th week, she may need an abdominal operation which will require a few days of hospitalization.
 - (e) There is no charge for an MTP performed in a general ward of a government hospital.
2. Encourage the woman undergoing MTP or her husband to use a contraceptive method following MTP or to undergo sterilization if eligible. This will prevent the need for repeated MTP.
3. Find out from the Health Worker (Male/Female) which are the nearest government approved institutions where MTP can be done so that you can inform the community about their location.
4. Encourage the community members to inform others about the facilities for MTP so that women will seek the service early in their pregnancy.

CHAPTER 7

Maternal and Child Care

The care of mothers and children is an important part of family welfare services. Some of your tasks which relate to the health care of mothers and children have been described elsewhere in this Manual, e.g., in the chapters on Nutrition, Immunization and Family Planning.

7.1 Advise pregnant women to consult the Health Worker (Female) or the trained dai for prenatal, natal and postnatal care

It is important that a mother maintains good health during her pregnancy in order that she may deliver a healthy baby. It is also important that she should receive competent care during her labour and that after delivery she and her baby should be followed up to ensure that they progress normally.

Therefore, during your home visits whenever you find a pregnant woman, you should emphasize the following points about the need for prenatal, natal and postnatal care:

1. Regular prenatal care given by the Health Worker (Female) or trained dai is important for the health of both the mother and her unborn baby.
2. Prenatal care ensures the following:
 - (a) The health problems of the woman are treated or she is referred as early as possible.
 - (b) Tetanus toxoid is given well before the expected date of delivery.
 - (c) Iron and folic acid tablets are given to those who are anaemic.
 - (d) The woman receives the necessary information about how to look after herself during pregnancy and how to prepare for delivery.
3. Proper care during labour ensures the following:
 - (a) Prevention of infection
 - (b) Prevention of complications caused by improper handling during delivery
 - (c) Early referral when complications arise.
4. During the first week after delivery the mother and baby should be seen by the Health Worker (Female) or the trained dai, and subsequently, both mother and child should attend regularly the MCH clinic at the Subcentre.
5. Regular postnatal care ensures the following:
 - (a) Health problems in the mother can be identified and treated early.
 - (b) Health problems in the baby can be identified and treated early.
 - (c) If necessary the mother or baby can be referred in good time.
 - (d) Iron and folic acid can be given if necessary.
 - (e) The baby can be given the necessary immunization.
 - (f) The mother can be given family planning advice.
 - (g) The mother can be advised about infant care and proper feeding.

7.2 Advise pregnant women to get immunized against tetanus

Tetanus germs are commonly found in rural areas because of the close association between animal manure and human habitation. The use of unclean instruments during home delivery and the improper care of the cord stump after it has been cut can cause tetanus in the newborn. This is usually fatal.

The disease can be avoided by the following measures:

- (a) Immunization of the pregnant woman with tetanus toxoid is given between the 5th and 8th months of pregnancy in two doses at an interval of 2 to 3 weeks.

- (b) If, for some reason, tetanus toxoid has not been given during pregnancy, it is very important that special precautions should be taken to use sterile instruments and dressings in cutting and medicating the baby's cord.

7.3 Educate the community about the availability of maternal and child care services and encourage them to utilize the facilities

You should inform the people in the community about the various services which are available for mothers and children in the village, at the Subcentre, and at the Primary Health Centre. Take every opportunity to encourage the community members to make use of these facilities so as to promote maternal and child health.

These facilities are as follows:

1. In the village:

- (a) **The trained dai** is always available for giving prenatal, natal and postnatal care. She will accompany the mother to the Subcentre for MCH care.
- (b) **The Health Worker (Female)** will be available on the specified days when she is scheduled to visit the village in her intensive area. During these visits she will do the following:
- (i) Examine pregnant and nursing women.
 - (ii) Conduct home deliveries.
 - (iii) Immunize mothers and children below one year.
 - (iv) Distribute iron and folic acid tablets to pregnant and nursing women.
 - (v) Distribute vitamin A to children 1 to 5 years of age.
 - (vi) Treat mothers and children for minor ailments and refer them to the PHC if necessary.
 - (vii) Give health teaching about the care of mothers and children.
- (c) **The Health Worker (Male)** will be available on the specified days when he is scheduled to visit the villages in his intensive area and those in his twilight area. He will carry out the following activities:
- (i) Immunize children over one year in the intensive area and all mothers and children in the twilight area.
 - (ii) Distribute iron and folic acid and vitamin A in coordination with the Health Worker (Female).
 - (iii) Treat minor ailments in mothers and children and refer them to the PHC if necessary.
- (d) **The Health Assistant (Male)** will be available on specified days each month for carrying out the immunization of school-going children.

2. At the Subcentre:

- (a) *The daily general clinic will be attended either by the Health Worker (Female) or the Health Worker (Male). The services for mothers and children will be as follows:*
- (i) Prenatal and postnatal care
 - (ii) Child health care
 - (iii) Immunization
 - (iv) Distribution of iron and folic acid and vitamin A
 - (v) Treatment of minor ailments
 - (vi) Health teaching.

(b) The weekly MCH clinic will be attended by the Medical Officer, Primary Health Centre, and/or the Health Assistant (Female).

3. At the PHC:

The following services will be available:

- (a) Daily general clinics attended by one of the Medical Officers
- (b) Weekly out-patient MCH clinics, attended by one of the Medical Officers
- (c) In-patient care
- (d) Referral to the District Hospital

7.4 Educate the community about how to keep mothers and children healthy

Some of the topics about which you should talk to people in the community are as follows:

1. The value of pregnant women attending MCH clinics regularly and the need for postnatal examination of the mother and her baby.
2. The need for delivery to be conducted by the Health Worker (Female) or a trained dai and for precautions to be taken to prevent infection.
3. The importance of having children examined and weighed at regular intervals to check that they are developing and growing normally.
4. The importance of good nutrition for the mother and baby (*see Chapter 8*).
5. The need to protect pregnant women and children against communicable diseases by immunization (*see Chapter 5*).
6. The importance of personal hygiene and of hand-washing before handling the baby and especially before preparing food for the baby.
7. The need to make the environment in and around the home clean and safe so as to prevent children from getting diarrhoeal diseases, worms and sore eyes.
8. The need for every child to be a wanted child and to receive love and affection.
9. The need to seek early treatment if either the mother or the child is ill.

If any of the following signs and symptoms are present the mother or child should be taken immediately to the Health Worker or to the Subcentre:

(a) In pregnant women

- (i) Headache
- (ii) Swelling of feet, fingers, face or vulva
- (iii) Blurring of vision
- (iv) Pallor
- (v) General feeling of weakness
- (vi) Yellow eyes and highly coloured urine
- (vii) Swelling and pain in legs
- (viii) Vaginal bleeding
- (ix) Vaginal discharge
- (x) Fever
- (xi) Cough

(b) In newborn infants (within one week of birth)

- (i) Inability to suck
- (ii) Difficulty in passing urine
- (iii) Stools not passed
- (iv) Jaundice
- (v) Diarrhoea
- (vi) Fever
- (vii) Discharge from cord stump

(c) In infants (up to one year)

- (i) Inability to suck or refusal of feeds

- (ii) High fever
 - (iii) Severe or persistent diarrhoea
 - (iv) Vomiting
 - (v) Excessive crying or irritability and drawing up legs on abdomen
 - (vi) Convulsions
 - (vii) Listlessness or drowsiness
 - (viii) Difficulty in breathing
 - (ix) Skin rash
 - (x) White patches on tongue
 - (xi) Discharge from eyes
 - (xii) Discharge from ears
- (d) **In children (one to five years)**
- (i) High fever
 - (ii) Severe or persistent diarrhoea
 - (iii) Vomiting
 - (iv) Passing worms in stools
 - (v) Skin rash
 - (vi) Convulsions
 - (vii) Paralysis or weakness of muscles
 - (viii) Stiffness of neck
 - (ix) Pallor
 - (x) Dryness of eyes
 - (xi) Shiny, dry and scaly skin or wrinkled skin
 - (xii) Not gaining weight and not developing for his/her age
 - (xiii) Poor appetite
 - (xiv) Bowing of legs
 - (xv) Rubbing eyes or discharge from eyes
 - (xvi) Pulling on ear or discharge from ear.

CHAPTER 8

Nutrition

Good nutrition means that the body is getting the required food and is able to make use of it. Malnutrition occurs when a person does not get the proper kinds of food in the amounts that are needed for keeping healthy.

2.1 Identify cases with signs and symptoms of malnutrition among pre-school children (one to five years) and refer them to the Health Worker (Male/Female)

It is important for you to identify malnourished children under five years of age as early as possible because they develop serious ill effects when they are improperly fed. Within this age group the children between six months and three years are most liable to develop malnutrition and, therefore, you should concentrate on looking for malnutrition in this age group.

Whenever you find a malnourished child in the community, you should refer the child to the Health Worker (Male/Female).

The early signs and symptoms of malnutrition which you should look for are the following:

1. The child is often sick because of low resistance to infection.
2. It has a dry, scaly or rough skin.
3. It has dry eyes and tends to stumble after dark.
4. It fails to gain weight regularly or loses weight.
5. It has cracks at the corners of the mouth (see Fig. 8.1).
6. It has a sore mouth and tongue.
7. It has bleeding from the gums.
8. It has soreness and tenderness of the body.
9. It tires easily and has little energy.
10. It has a pale pink or colourless lower eyelid or lower lip.



Fig. 8.1—Malnutrition: cracks at the corners of the mouth

The later signs and symptoms of malnutrition which you should look for are the following:

1. The child is smaller in size and considerably thinner than other children of the same age.
2. It may become easily breathless when playing.
3. It may look miserable and show no interest in people or surroundings.
4. It has hair which is lighter coloured than in others or which is reddish and brittle.
5. It has swelling of the feet and legs and peeling of the skin (see Fig. 8.2).
6. It is very thin with bones showing and wrinkled skin (see Fig. 8.3).
7. It has eyes which no longer shine and the surface of which is rough and dull.
8. It has sores on the surface of the eyes.
9. It has bumps on the front portion of the head (see Fig. 8.4).
10. It has bowing of the legs (see Fig. 8.4).
11. It has bead-shaped lumps along the ribs on either side of the breastbone (see Fig. 8.4).

You should also be especially alert to the possibility of finding a malnourished child when the conditions in his family are as follows:

1. The child is one of twins.
2. The child was much smaller than usual at birth.
3. Breast feeding was stopped before the child was three months old.
4. The child has no living parents.
5. The child belongs to a migrant family.
6. The mother has low intelligence.
7. There are four or more children in the family.
8. The family belongs to the poorest group in the community.
9. The child's brother or sister is less than one year younger.
10. The child is cared for during the day by an older brother or sister without parental supervision.

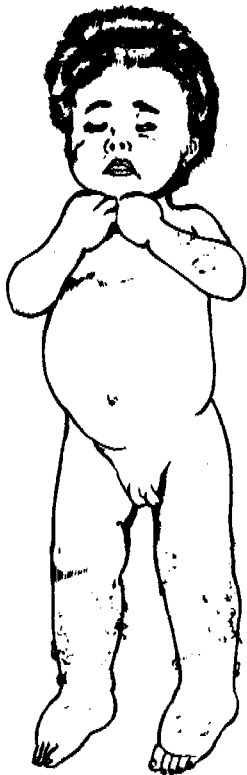


Fig. 8.2—Malnutrition: Swelling and peeling of skin

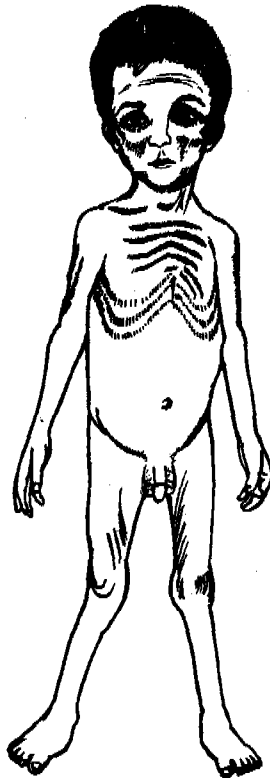


Fig. 8.3—Malnutrition: Wasting

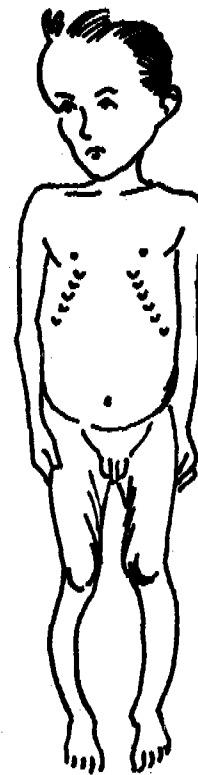


Fig. 8.4—Malnutrition: Bone deformities



Fig. 8.5—Examining the eye for anaemia



Fig. 8.6—Examining the lip for anaemia

8.2 Identify cases with signs and symptoms of anaemia in pregnant and nursing women and children and refer them to the Health Worker (Male/Female) for treatment

Anaemia is a condition of the blood resulting from an insufficient amount of iron in the body. In India the most common causes of anaemia are malnutrition, malaria and hookworm infestation. However, in women additional causes of anaemia are frequent pregnancies, repeated abortion and severe bleeding before, during or after delivery. You can identify those who are anaemic in the community in the following ways:

1. Look for mothers and children who have a pale skin and nails and who tire easily.
2. Pull down the lower eyelid and note whether the lining is pale (see Fig. 8.5).
3. Pull down the lower lip and note whether the lining is pale (see Fig. 8.6).

Whenever you find pregnant or nursing women or young children who have any combination of these signs and symptoms, you should refer them to the Health Worker (Male/Female) for treatment. If iron and folic acid are prescribed, assist the Health Worker in distributing the drug.

8.3 Assist the Health Worker (Male/Female) in administering vitamin A solution as prescribed to children from one to five years of age

You should assist the Health Worker (Male/Female) in the following ways:

1. Find out from the leaders of the village suitable dates six months apart for administering vitamin A solution, and inform the Health Worker.
2. Suggest to the Health Worker a central, shady place for holding the clinic so that it is easily accessible to all.
3. Get the community to provide the following:
 - (a) A table for equipment
 - (b) Mats or charpoys for seating
 - (c) Adequate supply of drinking water
 - (d) Facilities for washing hands and spoons.
4. Prepare a list of children between the ages of one and five for your village according to the instructions given by the Health Worker.
5. Visit the homes on the day before the date scheduled for the administration of vitamin A solution to remind families where and when to assemble.
6. Greet those who come for vitamin A solution and see that they are administered the drug according to their turn.
7. Ask the adult accompanying a child who is to be given the vitamin A solution to hold the



Fig. 8.7—Dispensing vitamin A solution

child in her/his lap with the head raised so that the solution can be placed in the side of the mouth or on the tongue (see Fig. 8.7).

8. Assist the Health Worker as required during administration of vitamin A solution.
9. Inform adults accompanying children to the clinic approximately when the next dose of the drug will be administered in the village and tell them that regular six monthly doses are necessary for preventing vitamin A deficiency in children until they are 5 years of age.

8.4 Teach families about the importance of breast feeding and the introduction of supplementary weaning foods

The major factors which are responsible for malnutrition in infants and young children are poverty, incorrect family food habits and parental ignorance regarding proper feeding and diet for this age group. You should talk about the following whenever you teach a family about how they can improve the diet for infants and young children:

1. Breast milk is the best food for infants up to the age of six months because it is clean and safe, it contains all the necessary nutrients and there is no cost.
2. Breast feeding should continue throughout the first year.
3. It is dangerous to use a bottle and nipple for feeding babies when the family do not have the necessary facilities for boiling the articles and keeping them clean. Whenever breast feeding is not possible a cup and spoon should be used.
4. After a baby is four months old, he needs to be given supplementary weaning foods since breast milk does not supply all the nutrients that a rapidly growing baby requires.
5. The first solid foods which are given to the baby should be soft, without roughage or spices and semi-solid in consistency, e.g., ripe banana, well-cooked mashed rice, millet or potatoes. Remove the infant's portion of the family food before spices are added as otherwise the baby will develop diarrhoea.
6. Give the baby a spoonful of new food at first and gradually increase the amount given over a period of weeks.
7. Supplementary weaning foods should be added gradually over a period of time rather than all at once.
8. Clean hands and utensils and freshly prepared food are necessary for preventing infections.

9. By six months of age the baby should be given dal, green leafy vegetables, egg yolk, chapati, roti or bread and fish or meat.
10. By the time the child is one year old, it should be eating all the foods (without spices) eaten by the family daily.

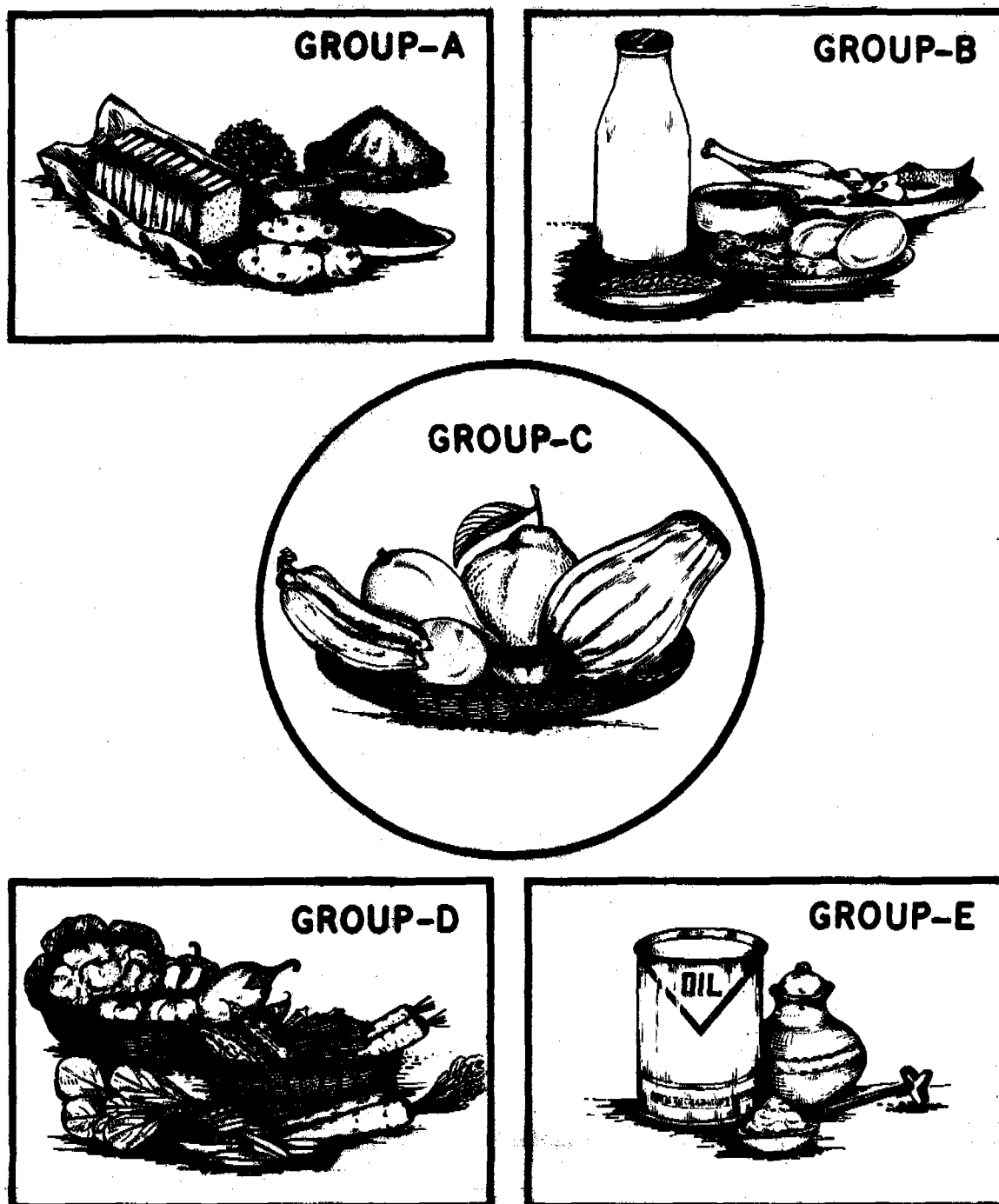


Fig. 8.8—The five food groups. Select one or more foods from each of these five groups: Group A—Foods such as bread, rice, wheat, potato, sugar and gur. Group B—Foods such as meat, fish, eggs, milk, groundnut, dal, and beans. Group C—Fruits such as orange, banana, nimbu (lime), papaya, mango and guava. Group D—Vegetables such as peas, capsicum, carrots, bhindi (ladies' fingers), brinjal, tomato, karela (bitter gourd), cauliflower, palak (spinach) and methi (fenugreek). Group E—Foods such as ghee, oil and butter.

8.5 Educate the community about nutritious diets for mothers and children

It is important to educate the community about proper diets for mothers and children.

The major points which you should stress about improving diets for mothers and children are the following:

1. If a pregnant woman does not eat sufficient amounts of the right kinds of food every day, she is likely to have a weak, low-birth-weight infant and insufficient breast milk.
2. Contrary to some common beliefs, pregnant women need more rather than less food throughout pregnancy.
3. Pregnant and nursing women should eat larger quantities of the regular family meals especially dal, leafy green vegetables and cereals, i.e., rice, chapati and roti, and milk whenever available.
4. If the pregnant or nursing woman does not eat eggs or cannot afford to have milk, she should eat a handful of groundnuts each day, and have two servings of dal or have a serving of ragi daily.
5. If children under five years do not receive the right amount and type of food every day, physical and mental growth are retarded and illness and even death may result.
6. Children over one year of age should be given all well-cooked foods in the family diet instead of diluted foods such as gruel or conjee. Hot spices for young children should be avoided.
7. The child under three years must be fed two or more snacks or small meals between the family meals so that he will get the amount of food his rapidly growing body requires.
8. A nutritious diet is one that consists of a variety of foods selected from each of the five groups needed to meet the requirements of the body (*see* Fig. 8.8).
9. A family meal can be improved and made more nutritious by making simple changes as follows:
 - (a) Add a handful of groundnuts or any dal to rice or wheat to be prepared for the meal. Whenever possible add egg, fish or meat to the meal.
 - (b) Include green leafy vegetables in the meal daily.
 - (c) Use a combination of cereal and millet or cereal-millet-pulse preparation instead of a single cereal.
 - (d) Serve well-washed vegetables such as carrot, cabbage or tomato raw instead of cooked.
 - (e) Serve unpolished, hand-pounded or parboiled rice instead of milled rice.
 - (f) Use the water in which rice or vegetables are cooked for making soups or adding to the curry.
 - (g) Serve sprouted channa or moong either raw or lightly cooked as often as possible.
10. Cheap and locally available nutritious foods should be used for family meals.

CHAPTER 9

Vital Events

Vital events refer to events which affect life such as birth and death. The reporting of births and deaths in villages is done by the village chowkidar, dais, and other leaders of the community including yourself.

9.1 Report all births and deaths in his/her area to the Health Worker (Male)

In the course of your visits to the homes, enquire whether any births or deaths have occurred since your last visit. Make a note of these births and deaths in your diary and inform the Health Worker (Male) about them on his next visit to your village. Give the Health Worker (Male) the exact address so that he can visit the house and collect the necessary data about births and deaths.

9.2 Educate the community about the importance of registering all births and deaths

You should impress upon the community that it is essential to register every birth and every death in the village for the following reasons:

1. Information about the births occurring in a village helps the Health Workers to plan for the provision of services to the newborn babies and their mothers both at home as well as at the Subcentre.
2. Death registration is necessary because it can help to find out whether any deaths have been due to communicable diseases so that the necessary measures can be taken to prevent further deaths.
3. The registration of deaths will help to identify and investigate those deaths occurring during pregnancy and within 40 days of delivery as well as deaths occurring in the newborn, i.e., within 28 days after birth. This information can be used to plan improvements in maternal and child health services.
4. Registration of births and deaths is also necessary in order to assess the birth rate, the death rate, the growth of population and the age distribution of the population. This information helps in planning for the needs of the population in terms of education, health care, food, housing, employment and social welfare.

First Aid in Emergencies

As you live within the community itself, you will usually be the first person to be contacted by the people in your village if any accident occurs. It is, therefore, important that you should know how to give first aid in an emergency.

In all emergencies after giving first aid you should send the patient immediately to the Primary Health Centre.

10.1 Give emergency first aid for the following conditions, refer these cases to the Primary Health Centre as necessary and inform the Health Worker (Male/Female)

10.1.1 Drowning

Drowning occurs when the person has inhaled water into the lung and the lungs become full of water instead of air.

If a person who has drowned is brought to you, proceed as follows:

- (i) Turn the patient face down with the head turned to one side and the arms stretched out. If a slope exists, the head must be placed downwards.
- (ii) Place your hand around the patient's abdomen and raise the body to encourage the water to run out of the lungs.
- (iii) Clear the mouth of weeds or any other material obstructing air entry, and of false teeth, if any.
- (iv) Loosen the clothing around the neck and waist.
- (v) Apply artificial respiration using the method shown in Fig. 10.1. Do not stop until the breathing has been re-established for at least a quarter of an hour.
- (vi) After recovery do not let the patient sit up. Transfer him/her lying on a stretcher to the nearest Primary Health Centre as soon as possible.

10.1.2 Electric shock

An electric shock is caused by a person touching a live electric wire.

The signs of electric shock are as follows:

1. The patient is unconscious.
2. The patient is in contact with a source of electricity.

When you see a person who has an electric shock you must *act promptly* in order to save his life. Proceed as follows:

1. Wherever possible shut off the current.
2. Free the person from the source of electricity by using a piece of wood, paper or rubber to push or pull him away.
3. Give mouth-to-mouth respiration immediately as shown in Fig. 10.2.

Mouth-to-mouth respiration should be continued for a long time, and certainly for as long as the pulse is felt.

After the patient has recovered, examine the skin for the presence of any burns and refer to the Subcentre for further treatment.

Educate the community on how to avoid electric shock by talking on the following points:

1. Ensure that all electric points are safe and that there are no exposed live wires.
2. Prevent children from playing with electric switches and sockets.
3. Prevent children from climbing up electric poles.

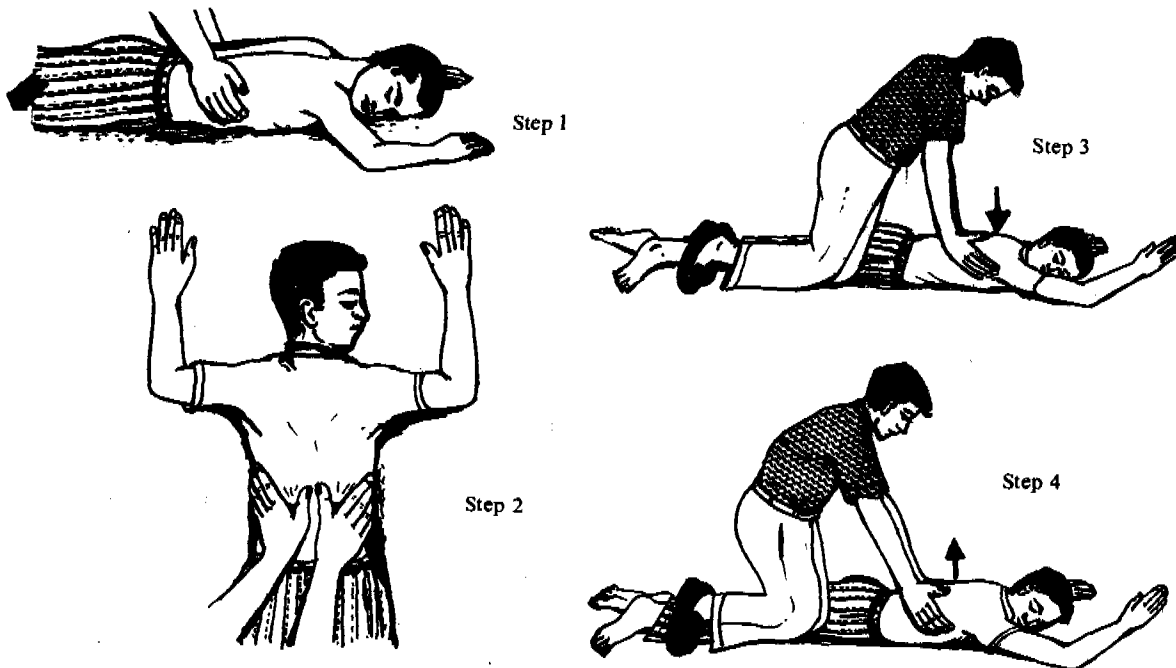
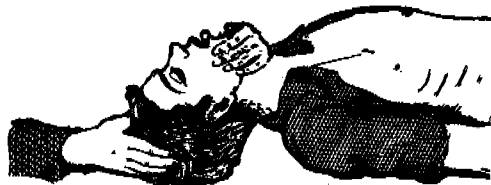


Fig. 10.1—Schafer's method of artificial respiration



Step 1—Extend the patient's head



Step 2—Breathe into the patient's mouth and watch the chest rising



Step 3—Watch the patient's chest falling

Fig. 10.2—Mouth-to-mouth respiration

10.1.3 Heat stroke

Heat stroke results from exposure to excessive heat and sun and may occur during the hot summer months. It is more likely to occur in those who have been drinking alcohol and those who are weak.

The early signs and symptoms of heat stroke are as follows:

1. High temperature (up to 42°C)
2. Headache
3. Dizziness
4. Nausea and vomiting
5. Cramps in the limbs
6. Dry, flushed, hot skin.

The patient may become unconscious later on. When this happens he usually dies.

When you see a patient with heat stroke proceed as follows:

1. Put him in the shade in the coolest and most airy place.
2. Undress him completely.
3. Pour cold water over him or apply cold cloths.
4. Give him cold water to drink if he is conscious.

Educate the community on how to avoid heat stroke by talking on the following topics:

1. Avoid exposure to direct sunlight.
2. Drink plenty of cold water with lime juice and salt if possible, during the hot season.
3. Cover the head and back of the neck with a turban or towel when exposed to the sun for long periods.
4. Avoid drinking alcohol.

10.1.4 Snake bite

Snake bite results in punctured wounds caused by the fangs of a snake. The wounds by themselves are minor ones, but in India there are a number of poisonous snakes and hence, unless you see the snake and know that it is non-poisonous, you should always treat the bite as poisonous.

<i>Signs and Symptoms</i>	<i>Treatment (See Fig. 10.3)</i>
<ol style="list-style-type: none"> 1. The patient may tell you that he has been bitten by a snake. 2. The two wounds produced by the snake's fangs are visible. 3. The patient may show signs of poisoning (bleeding or paralysis). 4. The patient may show signs of shock. 	<ol style="list-style-type: none"> 1. Tie a piece of cloth tightly above the bite to prevent the blood from returning to the heart. 2. With a clean razor blade, make four to six cuts 1 cm deep over the area of the bite. 3. Squeeze the part hard so that blood flows out of the cuts. 4. Apply potassium permanganate crystals in the cuts. 5. Apply a piece of clean gauze or cloth on the cuts. 6. Rush the patient to the nearest Primary Health Centre and inform the Health Worker (Male/Female).

10.1.5 Scorpion sting

The person stung by a scorpion, usually a child, complains of severe pain at the site of the sting and shows signs of shock. A scorpion sting is poisonous, and if the child is small and physically weak the sting may produce serious results.

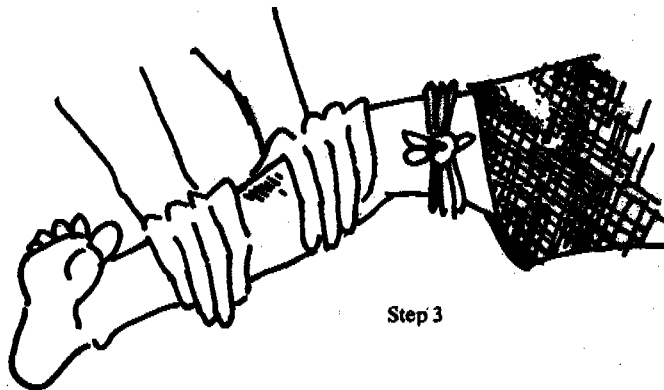
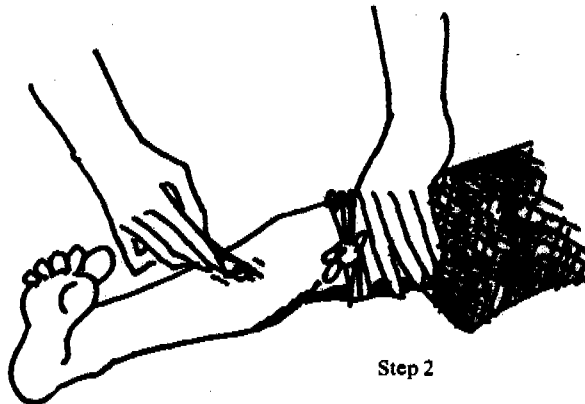
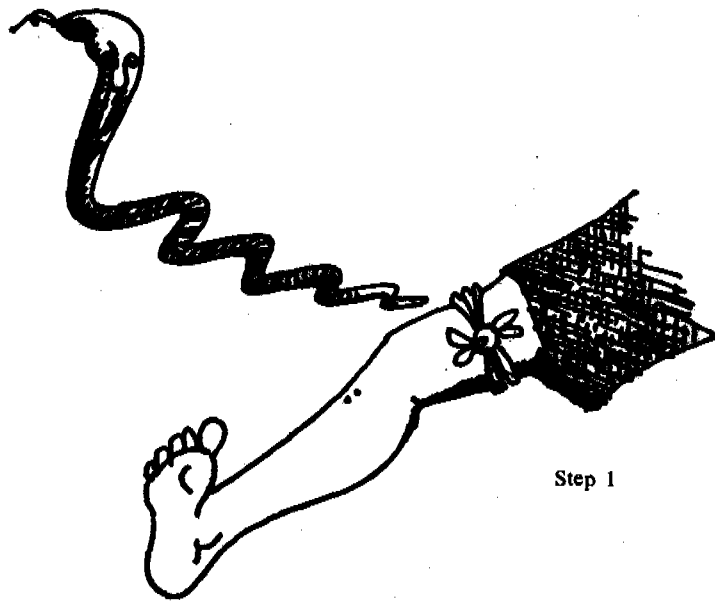


Fig. 10.3—Treatment of snake bite

<i>Signs and symptoms</i>	<i>Treatment</i>
<ol style="list-style-type: none"> 1. The patient will tell you that he has been stung by a scorpion. 2. The wound is red and there may be bleeding. 3. Signs of shock are present particularly in small children. 	<ol style="list-style-type: none"> 1. Apply a cold compress to the site of the sting. 2. Treat for shock. 3. Give APC tablets. 4. Refer to the hospital or the PHC, if signs are severe.

10.1.6 Insect stings

Bee, wasp and hornet stings occur frequently in rural areas, especially if the nests of these insects are disturbed.

<i>Signs and symptoms</i>	<i>Treatment</i>
<ol style="list-style-type: none"> 1. There is a history of being stung by an insect. 2. The site of the sting looks red, swollen and is painful. 	<ol style="list-style-type: none"> 1. Apply a cold compress to the site. 2. Give APC tablets. 3. If the pain and swelling are severe, or if there are signs of shock, inform the Health Worker (Male/Female).

10.1.7 Dog bite

In India where rabies is prevalent, if a person is bitten by a stray dog the injury should be taken seriously.

Wounds from dog bite are infected because dirt and germs are introduced into the wound from the teeth of the dog.

<i>Signs and symptoms</i>	<i>Treatment</i>
<ol style="list-style-type: none"> 1. There is a history of dog bite. 2. There may be one or more irregular wounds. 	<ol style="list-style-type: none"> 1. Clean the wound with soap and water. 2. Swab the wound with antiseptic lotion. 3. Apply mercurochrome to the wound. 4. Always inform the Health Worker (Male/Female).

10.1.8 Accidents

An accident is an event which happens unexpectedly. The extent of the injury depends on various factors.

The accidents which you are most likely to come across are as follows:

1. Wounds
2. Sprains and dislocations
3. Fractures (broken bones)
4. Burns and scalds.

Sometimes there may be a history given that the patient has received an injury to the head or some other part of the body but there is no visible injury. However, in these cases the patient may be unconscious, may show signs of shock or may complain of pain. In all such cases you must transfer

the patient to the Primary Health Centre immediately and inform the Health Worker (Male/Female).

As a Community Health Worker you are a first aider and the aim of your assistance is as follows:

- (i) To prevent immediate danger of death
- (ii) To prevent the patient's condition from getting worse.

In order to achieve these aims, you must remember the following rules and follow them every time you are dealing with an accident:

- (i) Stop any bleeding.
- (ii) Give artificial respiration.
- (iii) Guard against shock or treat for shock.
- (iv) Do not remove clothing unnecessarily.
- (v) Reassure the patient and relieve pain.
- (vi) Arrange for removal of the patient to the nearest Primary Health Centre or hospital.

1. Wounds

A wound is a tear or break in the skin following an accident. The deeper the wound the more likely it is to bleed and to get infected as it cannot be properly cleaned. You must stop the bleeding and, as far as possible, prevent infection from occurring.

A wound may be caused by the skin being:

- (i) Grazed (*see* Fig. 10.4): this is usually a superficial wound.
- (ii) Cut, e.g., by a knife or other sharp cutting instrument (*see* Fig. 10.5); this is usually accompanied by profuse bleeding and the deeper structures may also be cut.
- (iii) Torn, e.g., by barbed wire (*see* Fig. 10.6), or by a blunt instrument: the edges of the wound are irregular and there is bruising.
- (iv) Punctured, e.g., by a knife, nail or bullet: This wound is small but deep so that important organs may be damaged.

Treatment

- (i) Make the patient sit or lie down.
- (ii) Handle the injured part gently.
- (iii) Wash the wound with clean water and soap. Always clean away from the wound.
- (iv) Remove as much dirt or foreign matter as possible.
- (v) Wash the wound with antiseptic lotion.
- (vi) Stop any bleeding by using direct pressure or by applying a tourniquet.
- (vii) Apply mercurochrome and dust the wound with sulphamide powder.
- (viii) If the wound is gaping, apply strips of adhesive plaster to bring the edges together (*see* Fig. 10.7).
- (ix) Apply a clean dressing and bandage (*see* Fig. 10.8).
- (x) If necessary treat for shock.
- (xi) Give APC tablets.
- (xii) Support the arm in a sling when necessary.

You must always refer the patient to the PHC in the following cases:

- (i) If the wound is large and needs stitching
- (ii) If there is severe bleeding
- (iii) If there is shock or the patient is unconscious
- (iv) If there is a foreign body embedded in the wound
- (v) In all deep wounds of the chest and abdomen.

2. Sprains and dislocations

These occur when a joint is twisted by tripping, or falling, or by a sudden wrench. In a sprain the joint is not displaced, while in a dislocation it is (*see* Fig. 10.9).

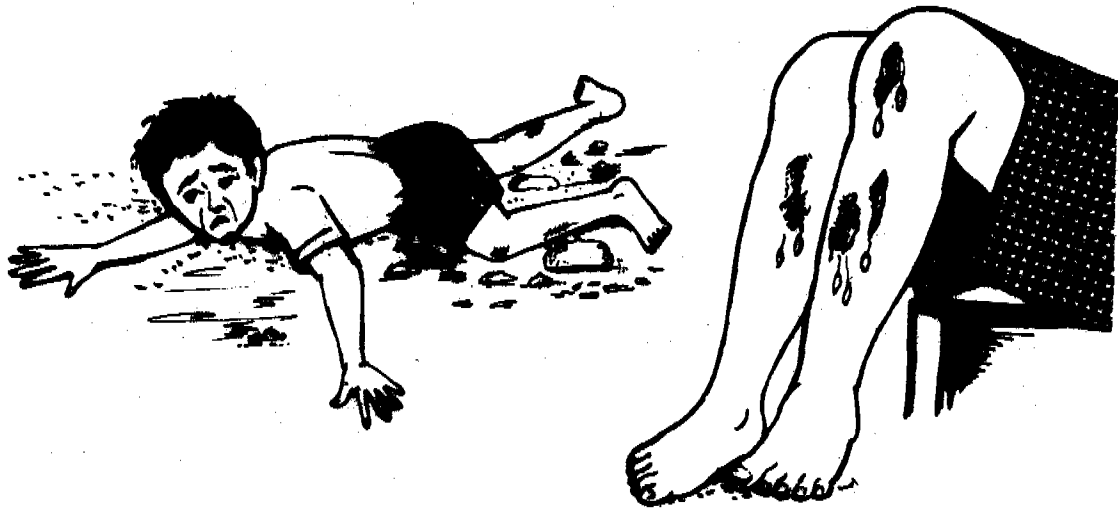


Fig. 10.4—Grazed wound



Fig. 10.5—Cut wound

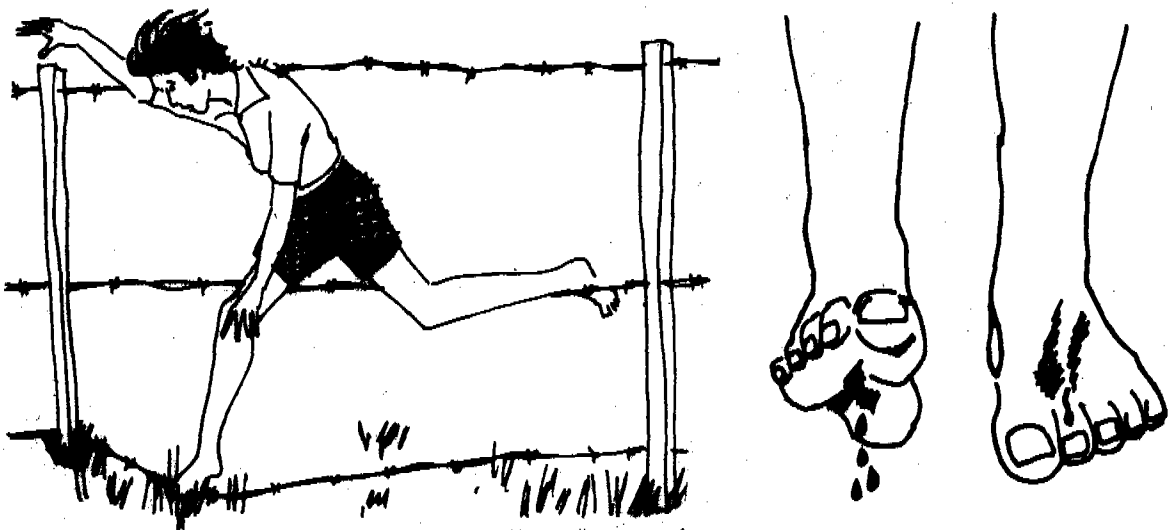


Fig. 10.6—Torn wound

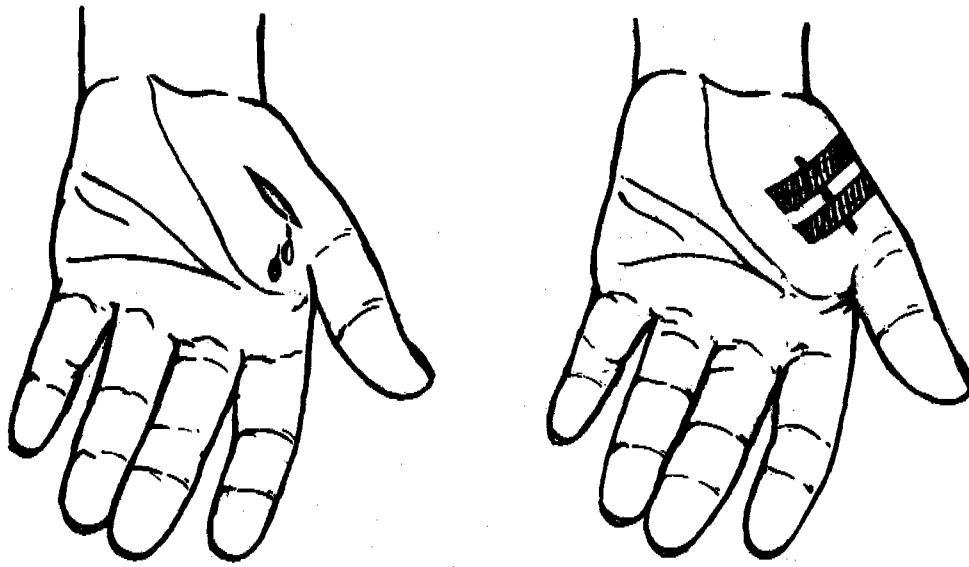


Fig. 10.7—Bringing wound edges together using adhesive plaster

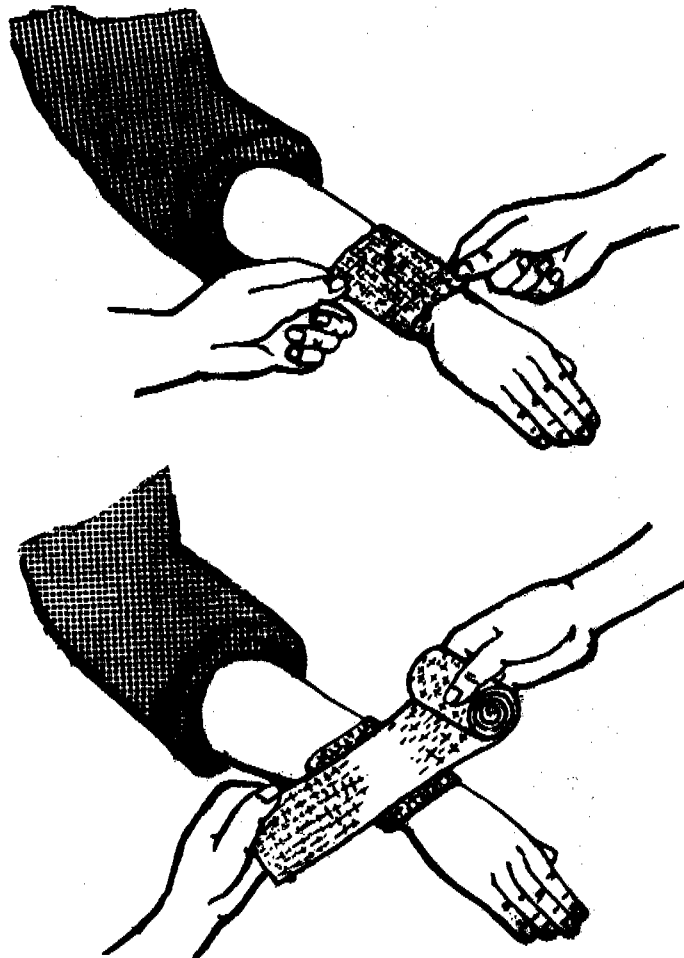


Fig. 10.8—Dressing and bandaging a small wound

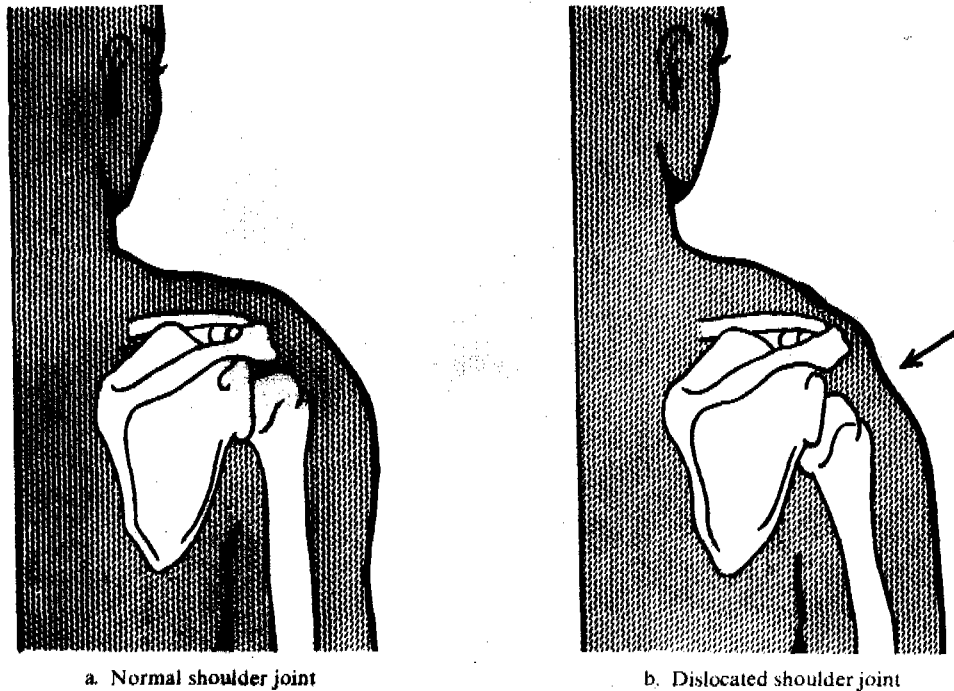


Fig. 10.9—Dislocation of the shoulder joint

<i>Signs and symptoms</i>	<i>Treatment</i>
<ul style="list-style-type: none"> (i) Severe pain in the joint at the time of injury. (ii) Swelling of the joint. (iii) Bruising around the joint. (iv) Reduced movement of the joint. (v) Deformity of the joint (only in dislocation). (vi) Signs of shock may be present. 	<p><i>If there is a sprain:</i></p> <ul style="list-style-type: none"> (i) Rest and support the injured joint in the most comfortable position. (ii) Apply a cold compress and bandage the joint firmly. (iii) Inform the Health Worker (Male/Female). <p><i>If there is a dislocation:</i></p> <ul style="list-style-type: none"> (i) Rest and support the injured joint in the most comfortable position. (ii) Treat for shock if present. (iii) Transfer the patient to the Primary Health Centre. (iv) Inform the Health Worker (Male/Female).

3. Fractures

A fracture is a broken bone. It may be cracked, broken into two pieces or splintered.

Furthermore, fractures may be:

- (i) **Closed:** there is no wound leading down to the bone and there is no bone protruding through the skin (see Fig. 10.10).
- (ii) **Open:** there is a wound reaching from the skin right down to the broken bone, or the broken bone may protrude through the wound (see Fig. 10.11).

You must remember the following rules when dealing with a fracture:

- (i) All fractures should be given first aid treatment and sent to the Primary Health Centre or hospital.
- (ii) Interfere as little as possible with a fracture and do only what is absolutely necessary to prepare the patient for the journey to the Primary Health Centre or hospital.
- (iii) Immobilize the fractured part.

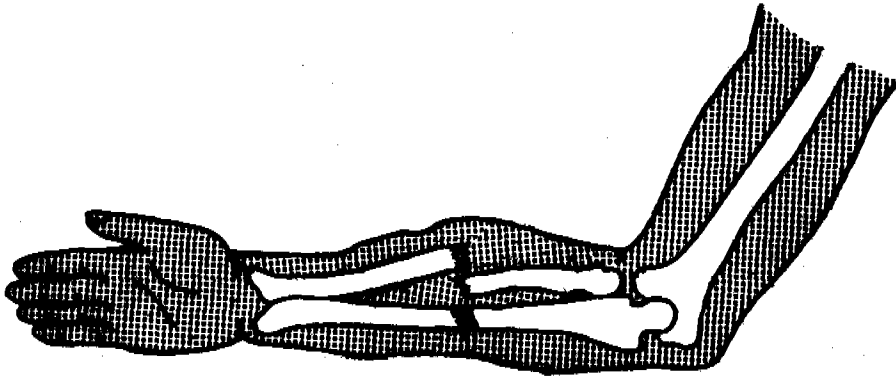


Fig. 10.10—Closed fracture

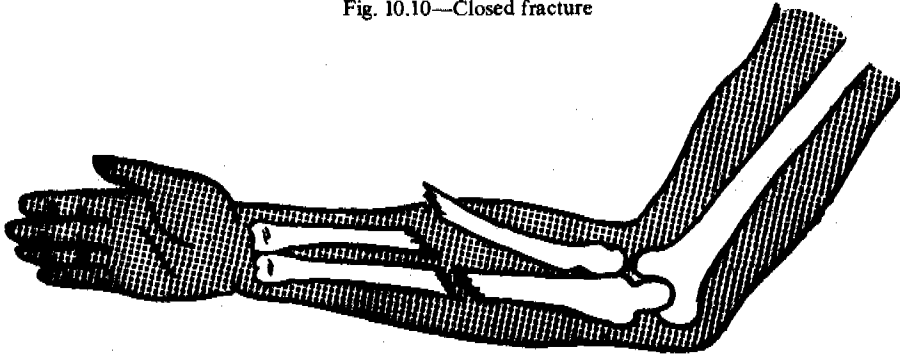


Fig. 10.11—Open fracture

<i>Signs and symptoms</i>	<i>Treatment</i>
<ul style="list-style-type: none"> (i) History of a fall or a hit. (ii) Pain at the site or near the site of fracture. (iii) Tenderness at or near the site of fracture. (iv) Inability to move the fractured limb. (v) Deformity of the limb. (vi) Swelling at the site of fracture. (vii) Fracture may be felt. (viii) Movement at a place where there should be no movement. (ix) Broken end of bone seen protruding under the skin. 	<ul style="list-style-type: none"> (i) Place the patient in a comfortable position with the injured part well supported. (ii) Do not remove clothing. (iii) Immobilize the injured part by using a splint and bandages. Always immobilize the joint above and below the fracture site. (iv) Treat for shock, but do not give any drink as the patient may have to have an anaesthetic for setting the fracture on arrival at the Primary Health Centre. (v) Refer to the nearest Primary Health Centre. (vi) Inform the Health Worker (Male/-Female). <p><i>If the fracture is an open one in addition to the six steps mentioned, carry out the following:</i></p> <ul style="list-style-type: none"> (vii) Cut away and remove the clothing over the wound and cover it with a clean dry dressing. (viii) Stop any bleeding by applying a pad and bandage. If the bleeding is severe and comes out in spurts, apply a tourniquet.

4. Burns and scalds

Burns are caused by dry heat such as fire, explosion of pressure stoves, petrol burns, hot metals and electrocution. Corrosive chemicals such as strong acids from batteries of cars can also cause burns.

Scalds produce the same type of injury as burns and are caused by wet heat such as boiling water, steam, hot oil or ghee and tar.

The treatment of burns and scalds will depend on whether the skin is intact or only partially destroyed or whether it is completely destroyed.

<i>Signs and symptoms</i>	<i>Treatment</i>
<p>Skin intact or only partially destroyed</p> <p>(i) The skin may be red or blistered (see Fig. 10.12).</p> <p>(ii) Signs of shock</p> <p>(iii) Severe pain</p>	<p>(i) Wash with soap and water.</p> <p>(ii) Apply sulphonamide ointment.</p> <p>(iii) Dress with gauze or clean cloth.</p> <p>(iv) Make the patient drink plenty of fluids.</p>
<p>Skin completely destroyed</p> <p>(i) The burnt area looks raw</p> <p>(ii) Signs of severe shock</p> <p>(iii) Severe pain</p>	<p>(i) Cover with a clean sheet or other piece of cloth.</p> <p>(ii) Make the patient drink plenty of fluids.</p> <p>(iii) Rush to the Primary Health Centre.</p>

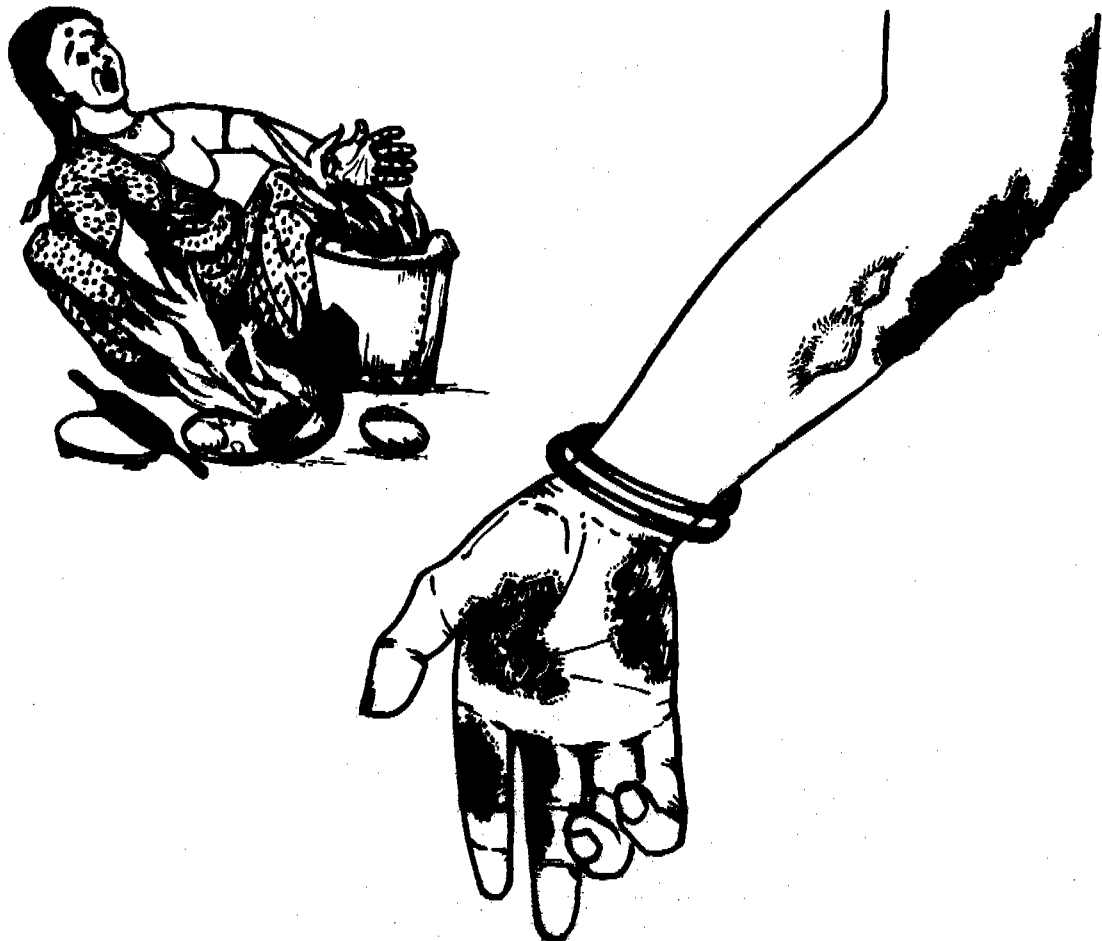


Fig. 10.12—Blistering of skin following a burn or scald

In cases where the skin is intact or only partially destroyed, inform the Health Worker so that he/she can take over the treatment of the case or advise you what to do.

10.2 Carry out procedures in dealing with accidents

1. Splints

A splint is a rigid appliance, usually made of wood or metal, which is tied to a fractured limb to support it and prevent movement from taking place at the site of fracture. Splints can be improvised by using any article which is rigid enough and of sufficient length for the purpose for which it is required. Rolled newspapers, magazines, a branch of a tree, etc., can be used for splinting in an emergency.

The body itself can be used for splinting purposes, e.g., a fractured arm can be strapped to the side of the chest to immobilize it, or a fractured leg can be tied to the other leg.

Using a splint: If a splint is not used properly, it may cause damage. Therefore, remember the following points when using a splint (see Fig. 10.13):

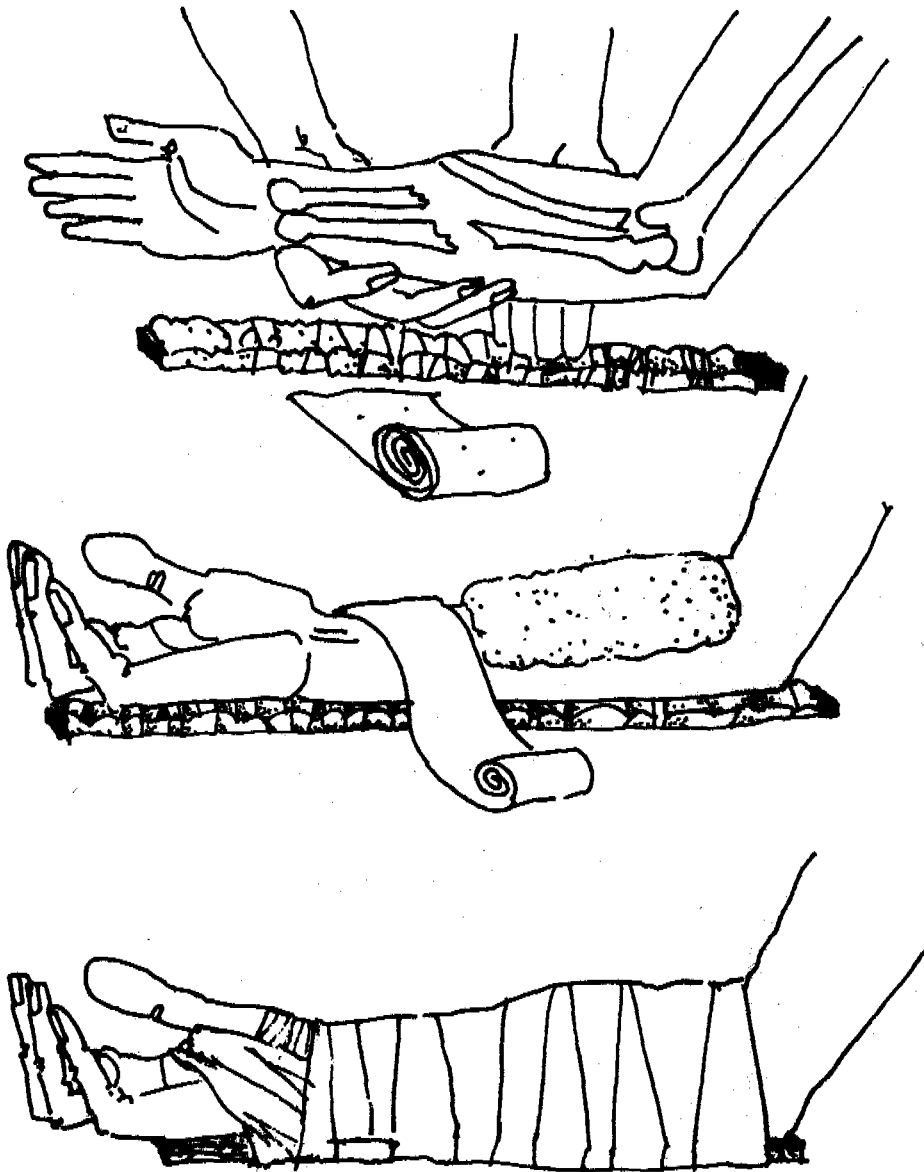


Fig. 10.13—Splinting a fractured forearm

- (i) Make sure that the fractured area is properly supported while placing it on the splint.
- (ii) Make sure that the splint is well padded with cloth. This is particularly important when splints are improvised from pieces of wood which are uneven.
- (iii) Make sure that the splint is sufficiently long to immobilize the joint above and the joint below the fracture.
- (iv) Make sure that the bandages used to secure the splint have the knot tied on the splint and not on the flesh.

2. Bandaging

The Triangular Bandage

The triangular bandage is usually used as follows:

- (i) In first aid (for retaining a dressing, as a tourniquet, to tie on a splint, to hold the lower limbs together, or as a pad)
- (ii) As a sling, when the upper limb is to be rested because of an injury or an infection.

The bandage can be used in four sizes (see Fig. 10.14).

You must always ensure that the knot used in tying a bandage is secure and that there is no danger of its slipping. The knot which is used is the 'Reef Knot' because the more it is tightened, the more secure it becomes. Also it can easily be undone if you want to undo the knot without damaging the bandage (see Fig. 10.15).

Some uses of the triangular bandage

- (i) The large arm sling (see Fig. 10.16).

Note that the knot is at the side of the neck and not at the back.

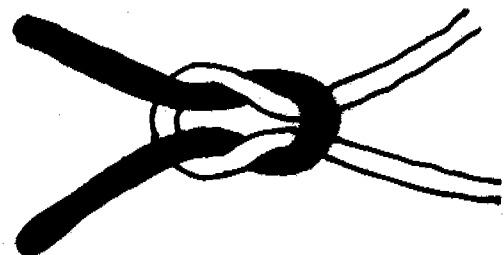
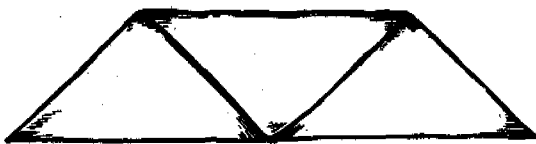
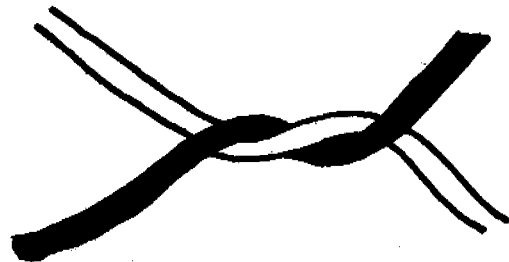
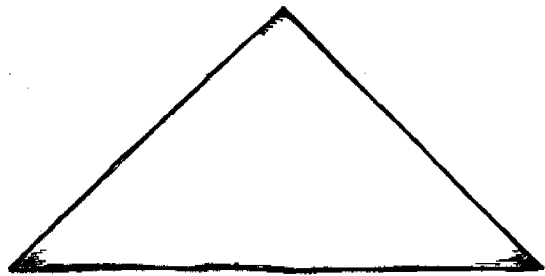


Fig. 10.14—Triangular bandage (four sizes)

Fig. 10.15—Reef knot



Fig. 10.16—Large arm sling

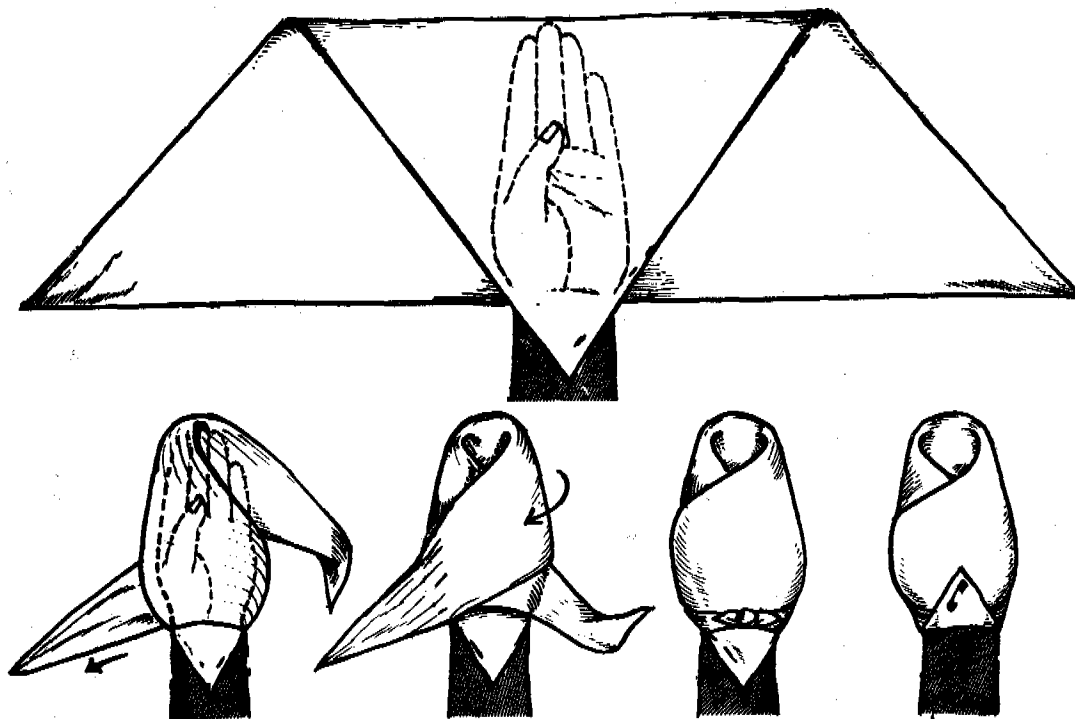


Fig. 10.17—Hand bandage

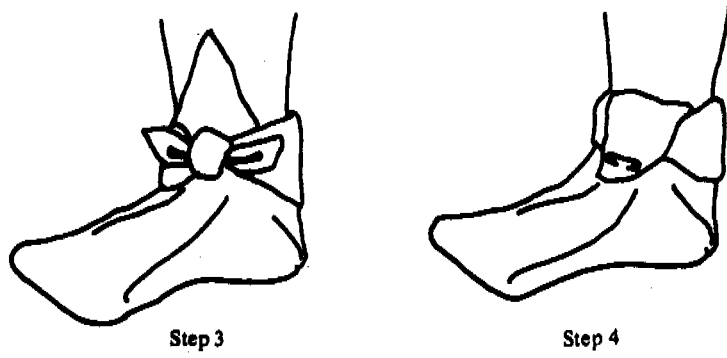
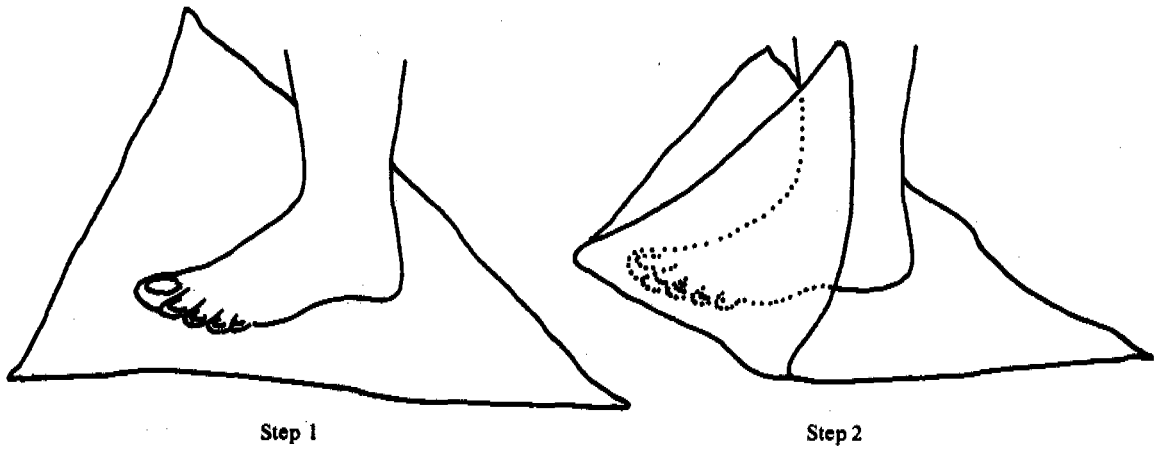
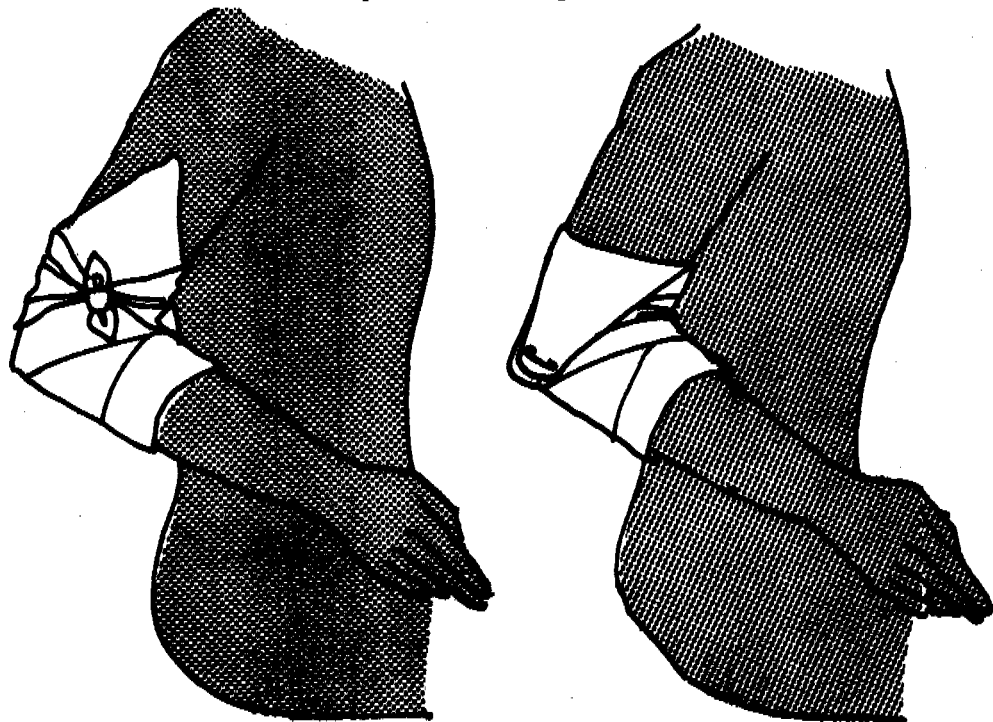


Fig. 10.18—Foot bandage



- (ii) The hand bandage (see Fig. 10.17).
- (iii) The foot bandage (see Fig. 10.18).
- (iv) The elbow bandage (see Fig. 10.19).
- (v) The shoulder bandage (see Fig. 10.20).
- (vi) The hip bandage (see Fig. 10.21).
- (vii) Bandage for back of chest (see Fig. 10.22).
- (viii) Bandage for front of chest (see Fig. 10.23).
- (ix) Head bandage (see Fig. 10.24).

The Roller Bandage

The roller bandage is used to keep dressings in place. Remember these general rules when using a roller bandage:

- (i) Roll the bandage tightly before you start using it.
- (ii) When you start bandaging, make two or three turns on top of each other to fix the end of the bandage firmly.

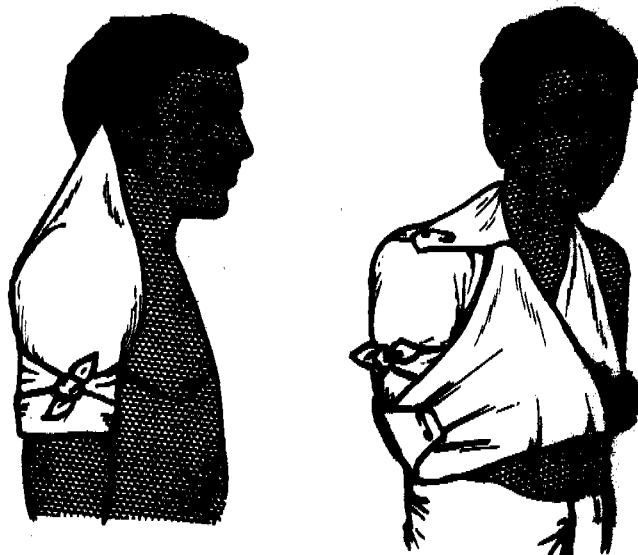
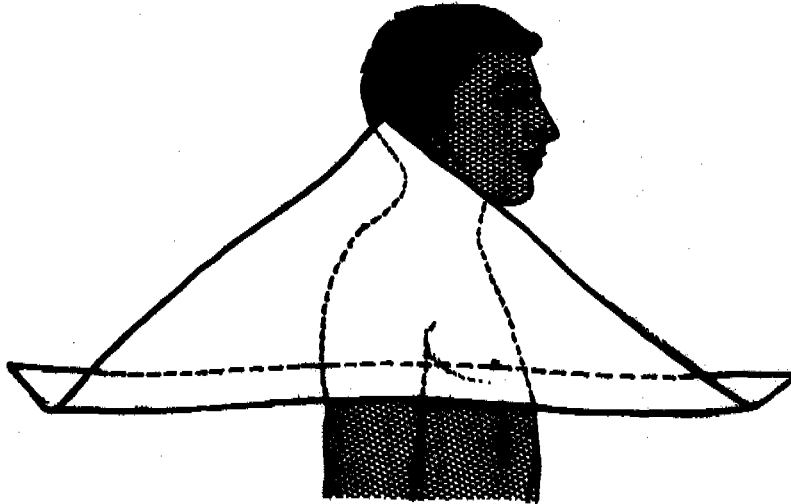


Fig. 10.20—Shoulder bandage

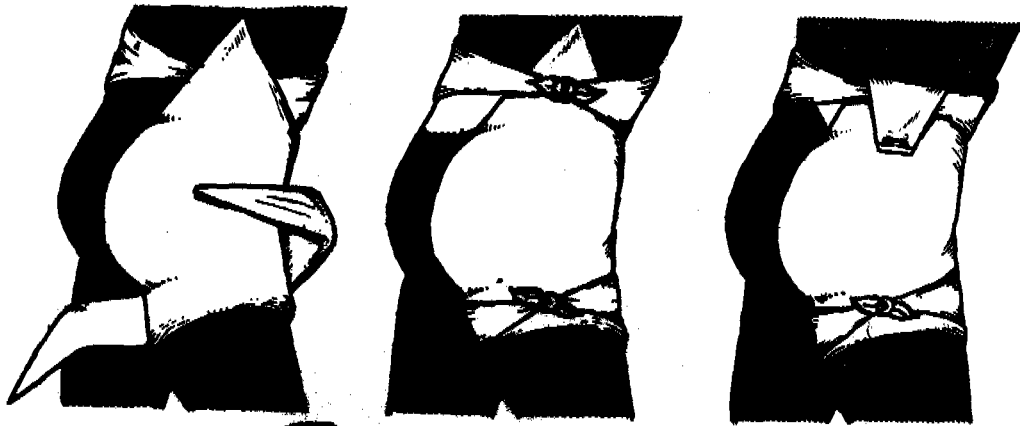


Fig. 10.21—Hip bandage

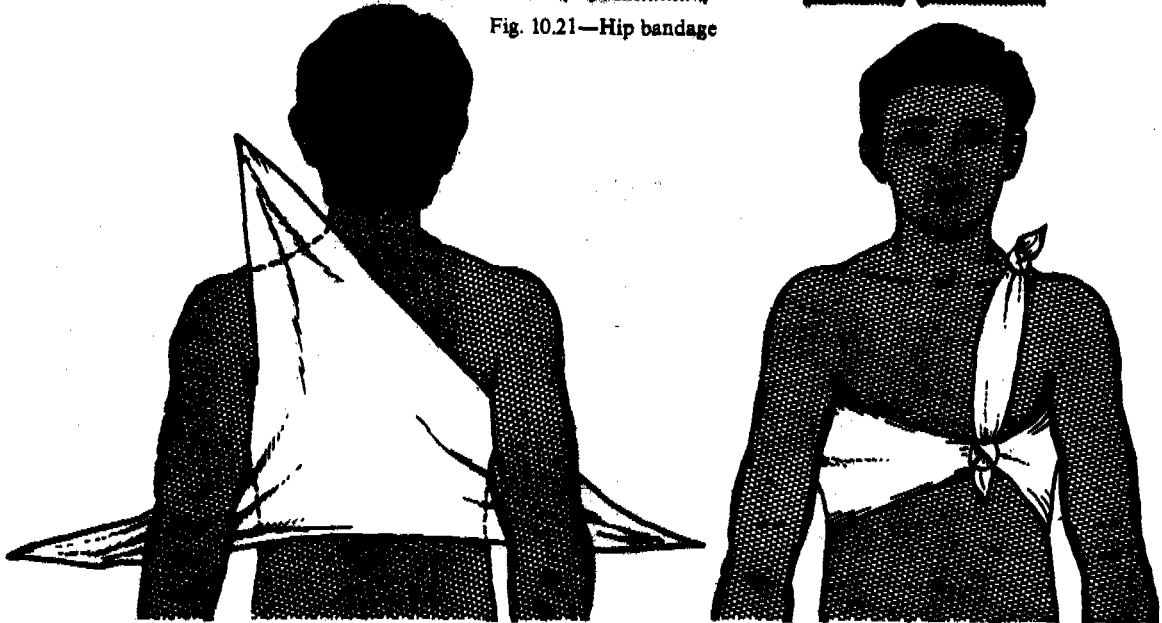


Fig. 10.22—Bandage for back of chest

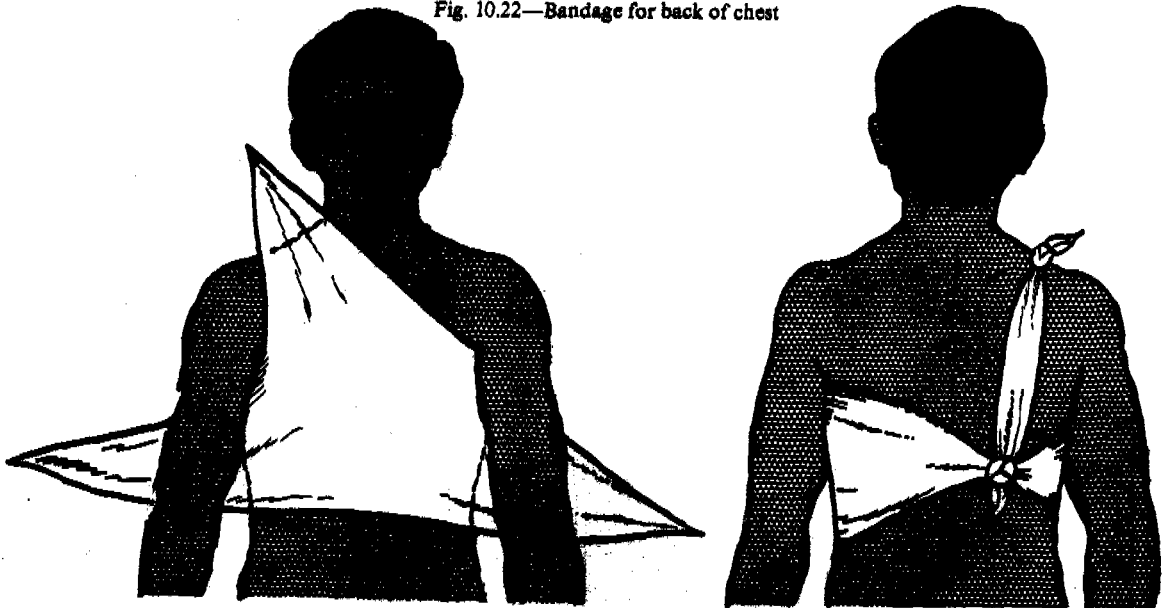


Fig. 10.23—Bandage for front of chest

- (iii) When bandaging a limb always start from below and work your way upwards.
- (iv) Make sure that the bandage is not too tight by checking that there is no numbness.

Some uses of the roller bandage

- (i) Bandaging the forearm (see Fig. 10.25).
- (ii) Bandaging the hand (see Fig. 10.26).

3. Treatment of shock

Shock usually occurs following a severe injury, bleeding, pain or emotional upset.

Shock may occur:

- (i) Immediately after injury
- (ii) Within half an hour to several hours after injury when it is caused by loss of blood externally or internally

Signs of shock

- (i) Pallor of face and lips
- (ii) Beads of sweat on the forehead

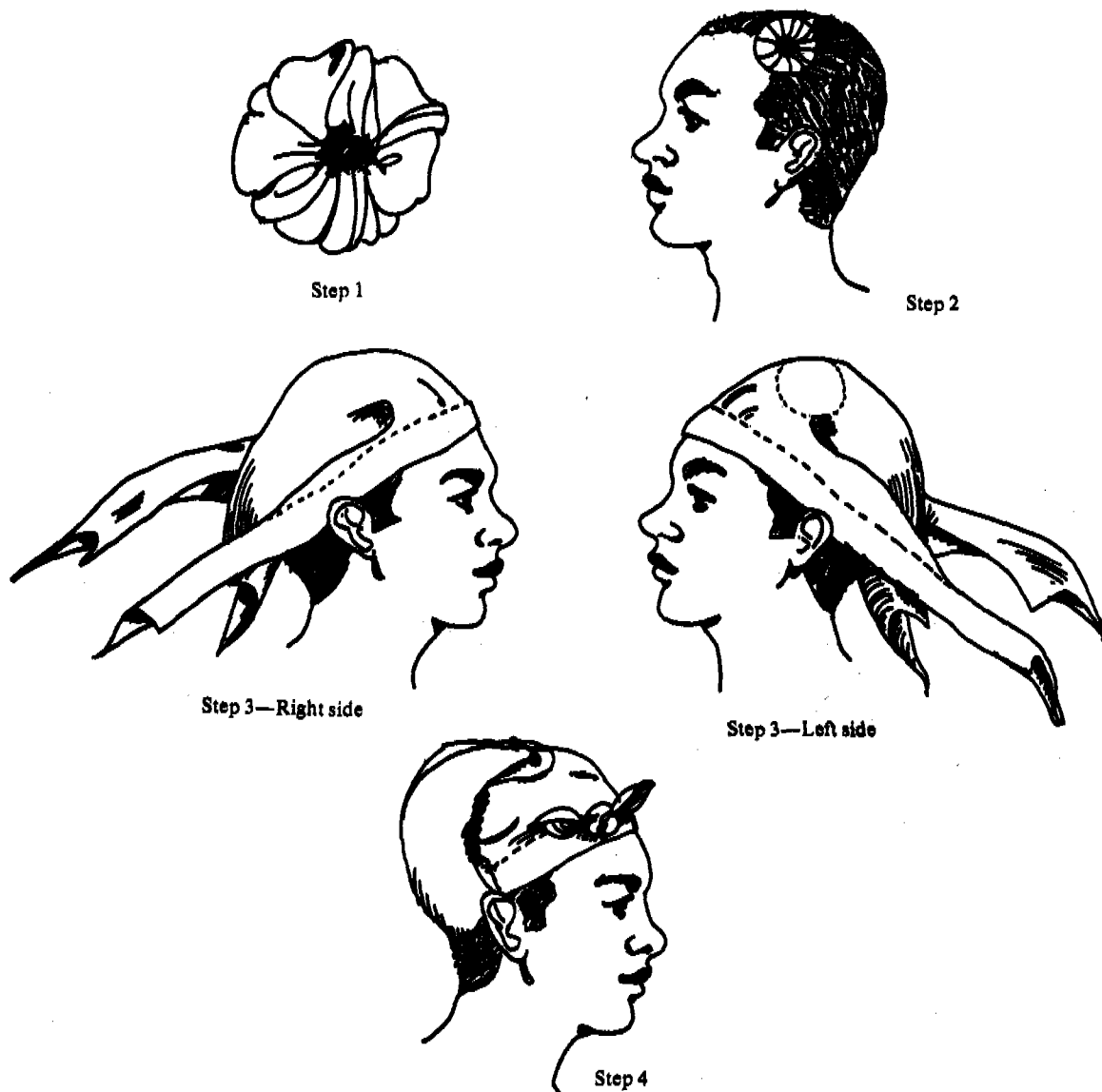


Fig. 10.24—Head bandage

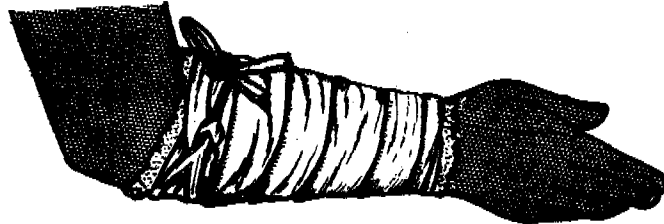
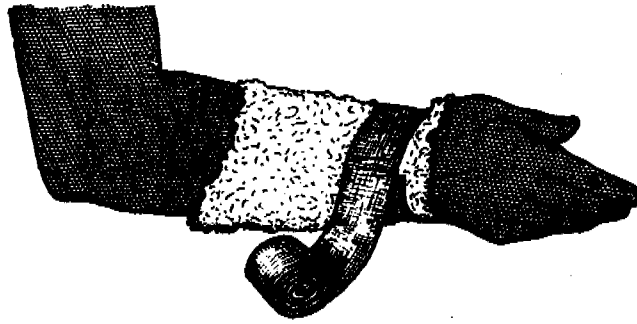


Fig. 10.25—Bandaging the forearm (roller bandage)

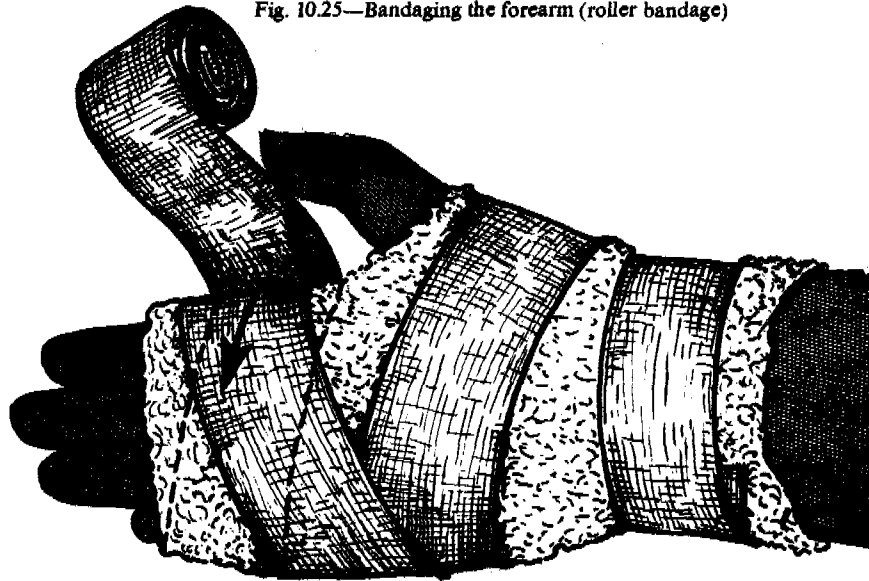


Fig. 10.26—Bandaging the hand (roller bandage)

- (iii) Clamminess of the skin
- (iv) Cold hands and feet
- (v) Shallow breathing
- (vi) Rapid and feeble pulse
- (vii) Vomiting
- (viii) Restlessness
- (ix) Vacant expression
- (x) Unconsciousness (at a later stage)

The treatment of shock takes priority over any other treatment except bleeding.

Proceed as follows:

- (i) Lay the patient down on a stretcher or a charpoy. If neither is available lay him down on the ground on a sheet or blanket (*see* Fig. 10.27).
- (ii) Raise the foot of the stretcher or charpoy about 22 cm. off the ground.
- (iii) Keep the patient warm by covering him with a blanket.
- (iv) Avoid any unnecessary handling.
- (v) Stop any bleeding.

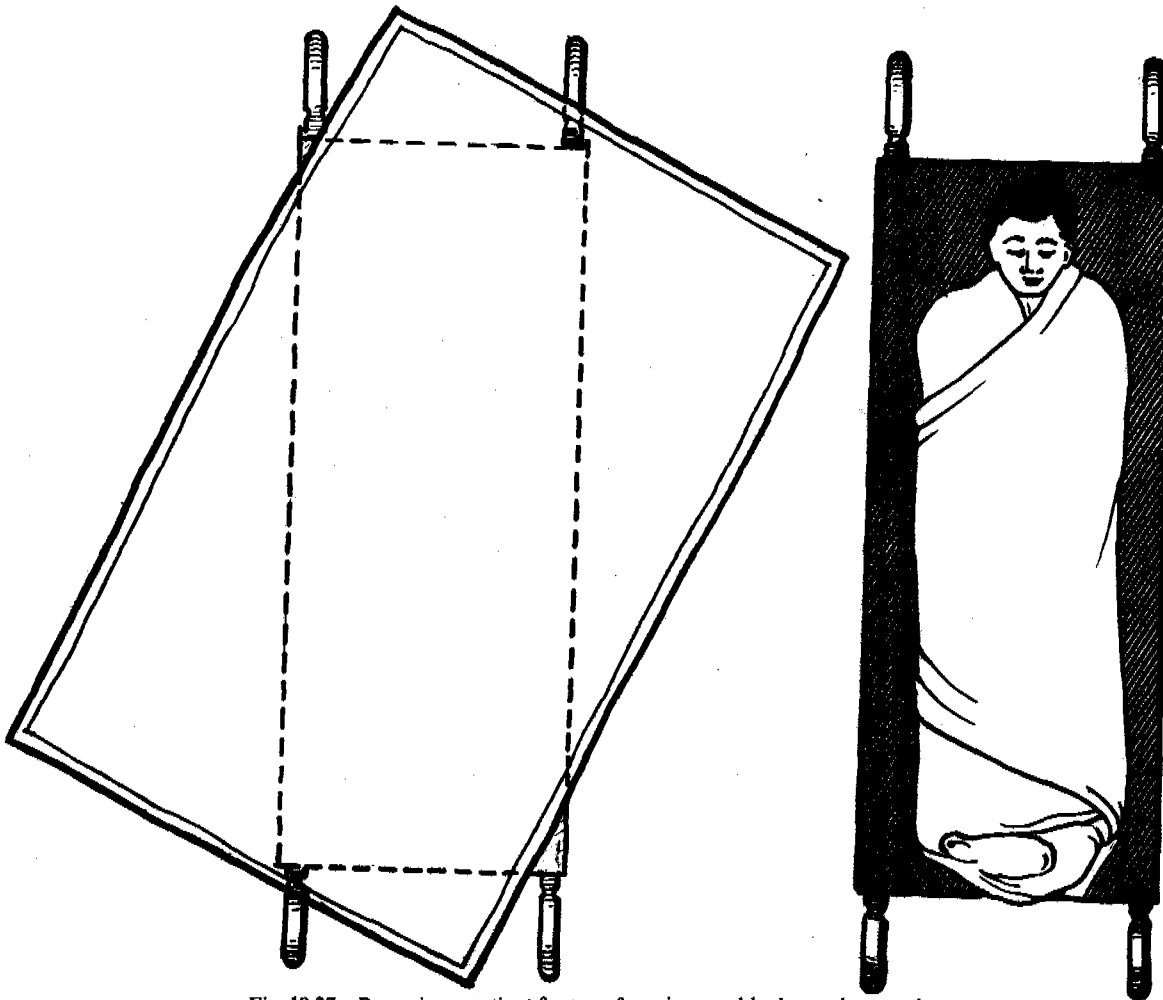


Fig. 10.27—Preparing a patient for transfer using one blanket and a stretcher

- (vi) If the patient is conscious give him hot tea with plenty of sugar.
- (vii) Splint fractures and cover wounds before sending the patient to the Primary Health Centre.
- (viii) Transfer the patient to the nearest Primary Health Centre or hospital.

4. Control of bleeding

Bleeding or loss of blood accompanies an accident in which a wound, a fracture or damage to organs occurs.

If there is oozing or a steady flow of blood, it can usually be controlled by direct pressure on the wound (see Fig. 10.28).

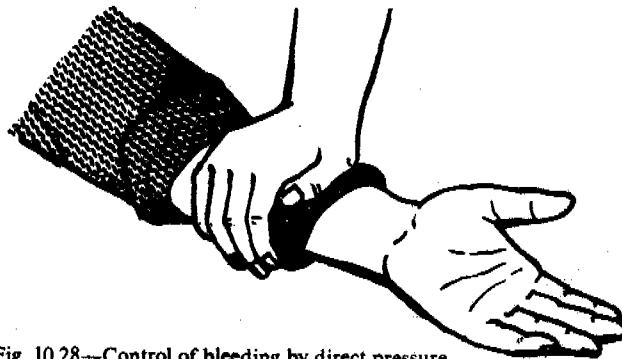


Fig. 10.28—Control of bleeding by direct pressure

If, however, bleeding is severe and is coming out in spurts, a tourniquet will be needed to control bleeding. A narrowfold triangular bandage, a handkerchief, a necktie, a broad belt or any other piece of material of sufficient length can be used as an improvised tourniquet.

Method of applying the Tourniquet (see Fig. 10.29)

The method described here refers to the use of an improvised tourniquet. Proceed as follows:

- (i) Fold the triangular bandage or handkerchief to a width of 5 cm.
- (ii) Apply it on clothing at the level of the middle of the upper or lower limb.
- (iii) Tie the free ends of the bandage in a half-knot on the outer side of the limb.
- (iv) Place a pencil, piece of wood, spoon, etc., on the half-knot.
- (v) Complete the knot to hold the pencil in position.
- (vi) Twist the pencil gradually so as to tighten the bandage until the bleeding stops.

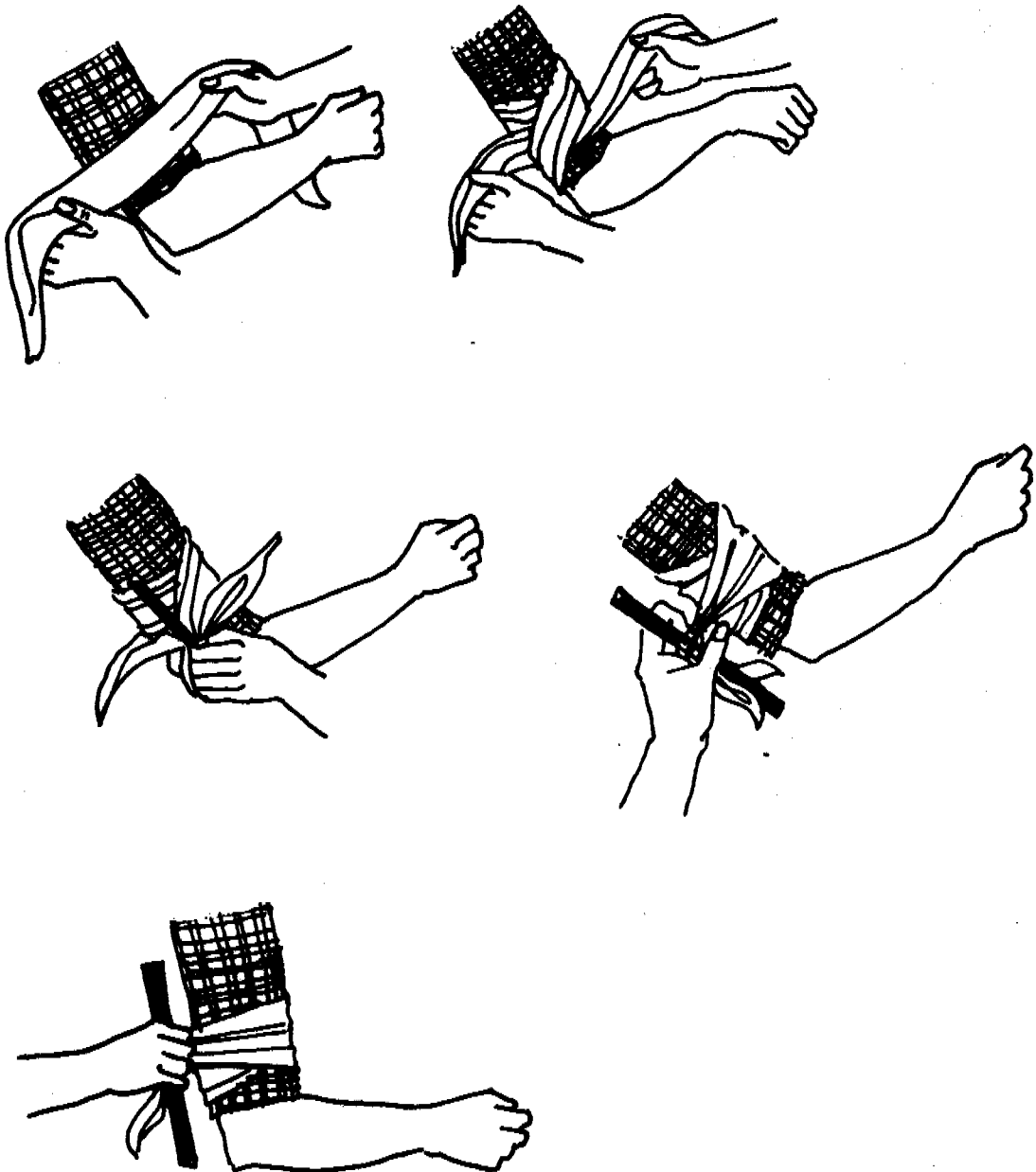


Fig. 10.29—Steps in applying an improvised tourniquet



Fig. 10.30—Controlling bleeding from the nose



Fig. 10.31—Controlling bleeding from the palm of the hand

- (vii) Use a second bandage tied around the limb to keep the pencil in the tightened-up position.
- (viii) Leave the tourniquet in place, but *loosen it gently every 15 minutes*.
- (ix) If the bleeding has stopped, leave the tourniquet in place but do not tighten it up again.
- (x) If the bleeding starts again, tighten the tourniquet and repeat steps vi, vii and viii.
- (xi) Go with the patient to the Primary Health Centre, if possible, so that you can control the bleeding.
- (xii) Attach a label, or any piece of paper, to the patient's shirt showing the time when the tourniquet was applied.

Note: A tourniquet is a very useful appliance to use in the presence of open fractures of a limb.

Control of bleeding from the nose

Nose bleeds are fairly common and are due to rupture of small vessels in the walls of the nostrils. See Fig. 10.30 for the method of controlling bleeding from the nose. If the bleeding does not stop refer the patient to the Primary Health Centre.

Control of bleeding from the palm of the hand

If the bleeding is not severe try and control it as shown in Fig. 10.31.

Refer the patient to the Primary Health Centre in cases of moderate or severe bleeding.

10.3 Keep a record of first aid given to each patient

Enter in your Medical Care Register particulars of first aid given to any person (see Section 11.2).

Treatment of Minor Ailments

When people in your area are ill, they will usually first come to you for treatment as you are living in the area. It is, therefore, important that you should know how to treat minor ailments.

You should be careful to refer cases in good time according to the instructions given. Whenever you are in doubt about the treatment, consult the Health Worker (Male/Female) or refer the patient to the Subcentre or Primary Health Centre. In the case of infants and young children, advise the parents to take the child to the Subcentre or PHC if the condition gets worse or if there is no improvement within 12 hours.

11.1 Give simple treatment for the following signs and symptoms and refer cases beyond his/her competence to the Subcentre or Primary Health Centre.

11.1.1 Fever

Fever can occur with many diseases and it is, therefore, important to look for other signs and symptoms accompanying the fever.

In young children high fever can often result in convulsions and hence it is necessary to control the fever as early as possible.

When you see a person with fever, proceed as follows:

1. Enquire how the fever started and how it progressed.
2. Ask about other accompanying signs and symptoms such as headache, nausea, vomiting, diarrhoea, cough, or running nose.
3. Look for a skin rash.
4. Enquire whether the patient has had any shivering.
5. Ask if there is pain in any specific part of the body.
6. If the patient is a child, note whether there is rapid and difficult breathing.
7. Take the temperature (*see* Section 1.1).

If there is fever with rigor and sweating or without any accompanying symptoms always consider it as a case of malaria and take thick and thin blood smears and give chloroquine tablets (*see* Chapter 1).

In addition:

1. Ask the patient to remain in bed.
2. Give APC tablets.
3. Tell the patient to drink plenty of fluids.
4. Advise the application of cloths wrung out of cold water to the forehead and limbs or sponging the body with cold water.
5. See the patient on the next day to find out whether any other signs or symptoms have developed.
6. Refer to the Subcentre if:
 - (i) The fever does not come down within 24 hours.
 - (ii) The fever goes up.
 - (iii) Other signs or symptoms develop.
 - (iv) The fever is accompanied by stiff neck, vomiting, convulsions or unconsciousness.

11.1.2 Headache

Headache can also occur with many diseases and it is, therefore, important for you to look for other signs and symptoms when a patient has a headache.

When a patient complains of headache, proceed as follows:

- (i) Ask the patient whether he has other symptoms, e.g., sore throat, earache, toothache or dizziness.
- (ii) Look for fever, rash, stiff neck, (see Fig. 11.1), discharging ears, running nose, sore eyes or vomiting.

Treat the headache as follows:

- (i) Give APC tablets.
- (ii) Rub the forehead with methyl salicylate ointment and apply a tight band around the forehead.
- (iii) Treat other symptoms accompanying the headache such as sore eyes, earache, toothache, cough or cold.

Always refer the patient to the Subcentre:

1. If the headache is accompanied by stiff neck, dizziness, vomiting or swelling of the feet.
2. If the patient is a pregnant woman.
3. If the headache persists beyond 24 hours.

11.1.3 Backache and pain in the joints

Backache may be caused by strain or injury, or it may be the symptom of some disease.

If a person complains of backache proceed as follows:

1. Ask how long the pain has been present.
2. Ask whether the patient has had any injury.
3. Ask whether there are other symptoms such as fever, pain in the joints or pain in the lower limbs.
4. See whether there is any deformity of the spine.

Treat the backache as follows:

1. Rest the joint as much as possible.
2. Give APC tablets.
3. Rub the back with methyl salicylate ointment or warm oil and cover with a cloth.

Refer the patient to the Subcentre:

1. If the backache is accompanied by deformity or pain in the lower limb
2. If the backache persists for more than three days
3. If the backache gets worse.

Pain in the joints may be due to injury, infection or ageing. The joints which are most likely to be involved are shown in Fig. 11.2.

If a person has pain in the joints, proceed as follows:

1. Ask which joints are painful and for how long the pain has been present.

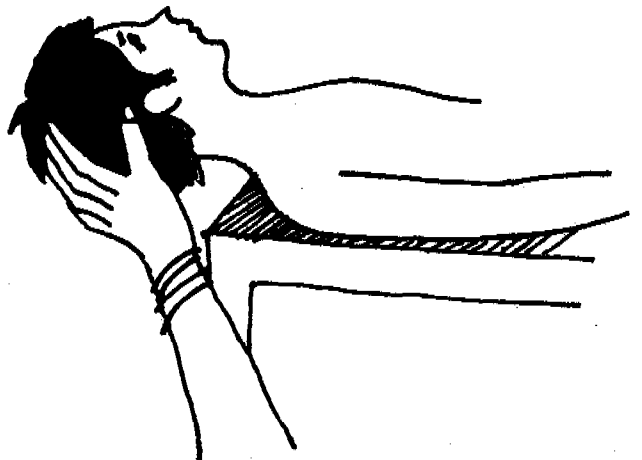


Fig. 11.1—Examining a patient for stiff neck

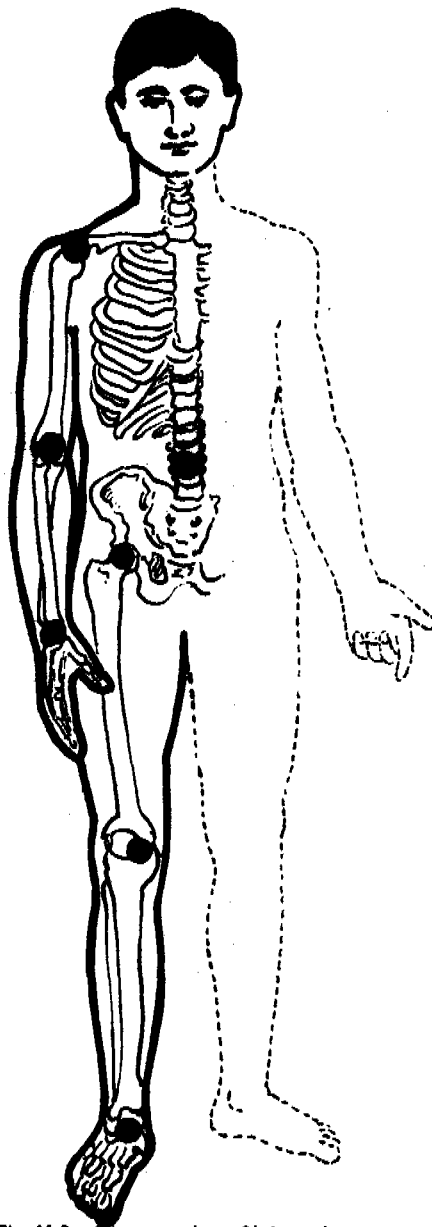


Fig. 11.2—Common sites of joint pain

2. Note whether the joint is red, hot, swollen or tender and whether there is fever.

Treat the joint pain as follows:

1. Give APC tablets.
2. Rub the joint with methyl salicylate ointment or warm oil.
3. Apply heat to the joint by means of:
 - (i) A hot water bottle *or*
 - (ii) Hot sand *or*
 - (iii) Soaking in hot water and salt.
4. Cover with a warm cloth or bandage.

This treatment must be repeated three or four times during the day.

Refer the patient to the Subcentre:

1. If the patient is a child with pain in several joints accompanied by fever.
2. If the joint is red, hot, swollen and tender.
3. If there is no improvement after 2 days of treatment.

11.1.4 Cough and cold

Cough is a common condition which is usually associated with diseases of the throat or lungs.

Whenever you see a patient with a cough, proceed as follows:

1. Ask for how long the person has been coughing.
2. Ask whether the cough is dry or whether it is accompanied by sputum, or whether there is a whooping cough.
3. Ask whether the patient has fever, a sore throat, pain in the chest, difficulty in breathing, vomiting, or blood-stained sputum.
4. Ask whether the person has lost any weight recently.

Treat the cough as follows:

1. Give APC tablets.
2. Give cough mixture.
3. If the cough is accompanied by sore throat, ask the patient to gargle frequently with a solution of hot water and potassium permanganate or salt.
4. Apply menthol and eucalyptus oil ointment to the throat, chest and back and cover with a warm cloth.
5. If the child has whooping cough, ensure that the child is;
 - (i) Kept in bed
 - (ii) Kept away from other children
 - (iii) Given frequent, small, semi-solid or liquid feeds.

Refer the patient to the Subcentre:

- (i) If the cough is of more than 15 days duration
- (ii) If the cough is accompanied by sputum, spitting blood, or loss of weight
- (iii) If the patient has pain in the chest, difficulty in breathing or vomiting.

A common cold occurs more frequently in the rainy season or winter months and is more often seen among those who are weak and ill nourished.

The symptoms of a common cold are:

- (i) Running nose or a blocked nose.
- (ii) Watering eyes
- (iii) Headache and body ache
- (iv) Fever.

The patient may also have a sore throat and ear discharge.

If a patient has a cold proceed as follows:

1. Give APC tablets.
2. Give steam inhalations with menthol and eucalyptus oil ointment.
3. Apply menthol and eucalyptus oil ointment in the nostrils and on the throat, chest and back.
4. Give the patient plenty of fluids to drink especially fruit juice if possible.
5. See that the patient, especially if it is a young child, gets sufficient nourishment.
6. Tell the patient to rest as much as possible.

Refer the patient to the Subcentre:

- (i) If there is severe headache, toothache, or earache accompanied by profuse nasal discharge, fever and rigors
- (ii) If a baby or child with a cold refuses to eat
- (iii) If a child has difficulty in breathing.

11.1.5 Diarrhoea

In diarrhoea the patient has frequent loose stools. Diarrhoea may be caused by taking food or water which is contaminated by disease germs or worm eggs, or by using dirty hands for eating. When you see a patient with diarrhoea, proceed as follows:

1. Ask how long the patient has had diarrhoea, how many stools are passed and the type of stool passed.

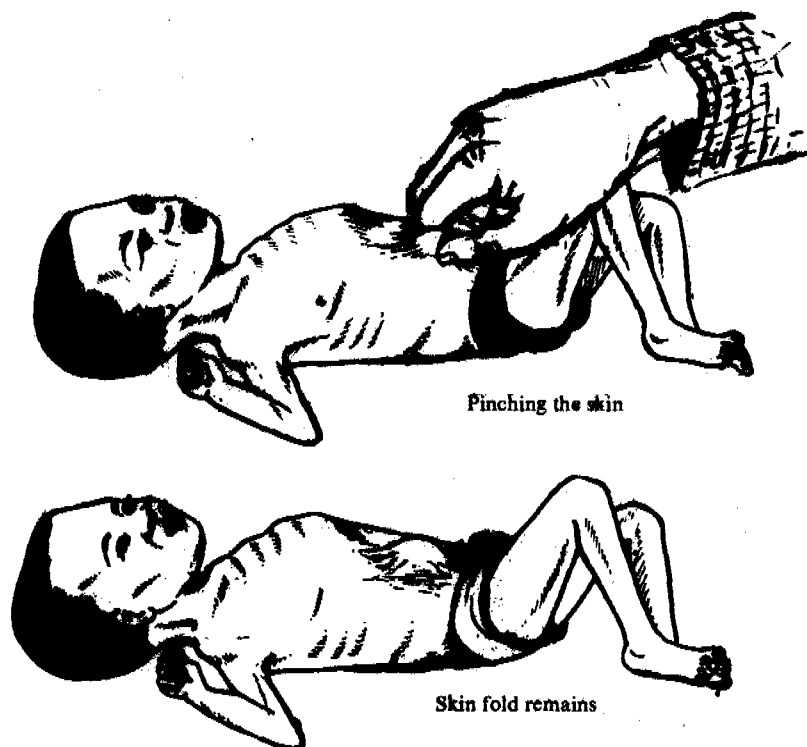


Fig. 11.3—Testing the skin for dehydration

2. Ask whether the patient has any fever, vomiting, or pain in the abdomen, or whether he has passed any worms.
3. Look for signs of **dehydration**, viz., **sunken eyes**, dry mouth, wrinkled skin (see Fig. 11.3).

Treat the patient as follows:

1. Give bismuth kaolin mixture with water.
2. Give plenty of fluids to drink.
3. Give a soft diet without spices, e.g., banana, buttermilk, arrowroot conjee, or rice gruel.
4. If there is severe diarrhoea or signs of dehydration, give rehydration mixture. If rehydration powder is not available, make a solution as follows:
 - (i) Add a pinch of salt and a handful of sugar (see Fig. 11.4) to a little over 1 litre (1 bottle or about 6 teacups) of clean water.

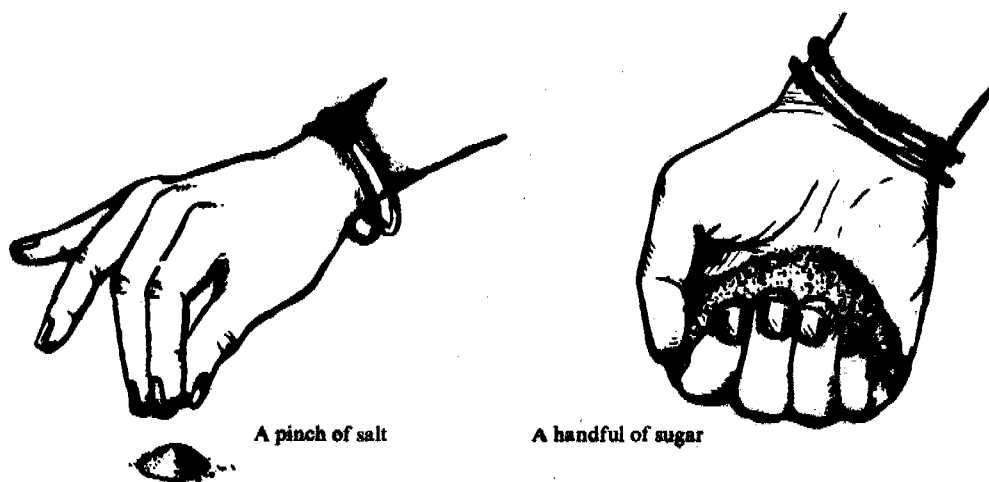


Fig. 11.4—Improved method for preparing rehydration mixture

- (ii) Boil the mixture for 10 minutes.
- (iii) If available add the juice of half a sour lime to the solution and mix well.
- (iv) Keep the container covered and cool the mixture until it can be given without the risk of burning the mouth.

Give the patient small quantities of this mixture at frequent intervals.

Refer the patient to the Subcentre:

- (i) If there are signs of dehydration
- (ii) If the stool looks like rice water
- (iii) If the stool contains blood and mucus
- (iv) If worms are being passed
- (v) If the diarrhoea is accompanied by fever and vomiting
- (vi) If there is no improvement within 24 hours.

11.1.6 Vomiting

In adults, vomiting may result from eating food which is infected or which does not agree with the person, or it may be the result of overeating or excessive drinking.

In children and infants, vomiting is common and may be caused by giving the child food which is fatty, spicy or insufficiently cooked, by improper feeding techniques, or by infection caused by taking contaminated food or water. When you see a patient who is vomiting, proceed as follows:

1. Ask how long and how frequently the patient has been vomiting and what is the nature of the vomit, e.g., blood, bile, undigested food or water.
2. Ask if there are any other symptoms such as pain in the abdomen, diarrhoea, constipation or fever. If the patient is a woman, ask whether her menstruation has stopped.
3. Look for a rash, yellow skin and eyes, signs of dehydration, or signs of malnutrition.

Treat the patient as follows:

In adults:

1. Give magnesium hydroxide tablets.
2. Give a milk diet.

In children:

1. Give skimmed milk and boiled water.
2. If there is severe vomiting or signs of dehydration give rehydration mixture.

Always refer the patient to the Primary Health Centre:

- (i) If the vomit contains blood
- (ii) If the patient is dehydrated
- (iii) If the patient is unable to retain anything
- (iv) If the vomiting is severe and is accompanied by rice water stools.
- (v) If there is no improvement within 24 hours.

11.1.7 Pain in the abdomen

Pain in the abdomen may be caused by a disorder or disease of any of the organs in the abdomen such as the stomach, intestines, liver, spleen, kidneys, bladder and, in women, the uterus. Depending on the organ involved the pain is in a different part of the abdomen and is accompanied by various other symptoms.

If you see a patient with pain in the abdomen, proceed as follows:

1. Ask how long the patient has had pain.
2. Ask where the pain is felt.
3. Ask whether the pain is present all the time or whether it comes and goes.
4. Ask whether the pain is related to:
 - (i) Taking food
 - (ii) Passing urine
 - (iii) Menstruation (in women).
5. Ask whether the patient has had any injury or blow on the abdomen.

6. Ask whether there are other symptoms such as fever, nausea, vomiting, diarrhoea or constipation.

7. Check whether the patient has yellow eyes and skin.

8. Ask whether the urine is dark brown in colour or whether it is blood stained.

9. Ask whether any worms have been passed in the stool or vomit.

Treat the patient as follows:

<i>Abdominal pain associated with</i>	<i>Treatment</i>
1. No other symptoms	(i) Advise milk and soft diet with no spices or raw vegetables. (ii) Give magnesium hydroxide tablets. (iii) Give APC tablets. (iv) Give 2 teaspoons of ginger juice or 1 teaspoon of garlic juice.
2. Diarrhoea	(i) Give APC tablets. (ii) Treat for diarrhoea (<i>see</i> Section 11.1.5).
3. Constipation	(i) Treat for constipation (<i>see</i> Section 11.1.8).
4. Nausea and/or vomiting	(i) Treat for vomiting (<i>see</i> Section 11.1.6).
5. Passing worms	(i) Refer to Subcentre for treatment.
6. Jaundice	(i) Give plenty of sugarcane juice to drink. (ii) Refer to Primary Health Centre. (iii) Inform Health Worker (Male/Female).
7. Fever and vomiting	(i) Refer to Primary Health Centre. (ii) Transfer patient lying down. (iii) Inform Health Worker (Male/Female).
8. Passing urine	(i) Give plenty of fluids to drink. (ii) Give APC tablets. (iii) Refer to Subcentre for treatment.
9. Pregnancy	(i) Call the Health Worker (Female) or trained dai.
10. Vaginal bleeding	(i) Give APC tablets. (ii) Refer to Health Worker (Female).
11. Signs of shock	(i) Treat for shock (<i>see</i> Section 10.3). (ii) Refer to Primary Health Centre. (iii) Inform Health Worker (Male/Female).

11.1.8 Constipation

A person is constipated when he is not going to the latrine regularly to open his bowels and has much discomfort and straining while passing a stool.

A common cause of constipation is carelessness about going to the latrine when the need to pass a stool is felt.

When a patient has constipation, proceed as follows:

1. Ask how long the patient has been constipated.

2. Ask whether there are any other symptoms such as vomiting, abdominal pain, or fever.

Treat the patient as follows:

1. Give magnesium hydroxide tablets.

2. Advise the patient to drink plenty of water.

3. Advise the patient to eat plenty of fresh fruit and green leafy vegetables.

Refer the patient immediately to the Primary Health Centre and inform the Health Worker

Male/Female:

- (i) If the patient has vomiting and severe abdominal pain accompanying constipation.
Do not give any treatment.

11.1.9 Toothache

Toothache is a common complaint, especially in those persons who do not take care of their teeth.

When a person is suffering from toothache proceed as follows:

1. Ask for how long the tooth has been painful.
2. Enquire if there is any fever.
3. Look at the tooth to see if there is any decay of the tooth or swelling and redness of the gums.

Treat the patient as follows:

1. Give APC tablets.
2. Advise the patient to wash out the mouth frequently with lukewarm water containing a few crystals of potassium permanganate or salt.
3. If cloves are available in the patient's home ask the patient to chew one with the affected tooth.
4. Send the patient to the Primary Health Centre for further treatment and inform the Health Worker.

11.1.10 Earache

Pain in the ear is usually caused by infection in the ear or in the throat. It can also be due to the presence of wax or of a foreign body in the ear.

When a patient complains of earache, proceed as follows:

1. Ask how long the patient has had earache.
2. Enquire whether any foreign body such as an insect or a solid object has entered or has been pushed into the ear and examine the ear for the presence of a foreign body.
3. See if there is any discharge from the ear.
4. Enquire if there is any sore throat.
5. Ask if the patient has any dizziness or disturbances of hearing.
6. Take the temperature.

Treat the patient as follows:

1. Apply sulphacetamide ear drops in the affected ear (*see* Fig. 11.5).
If there is any discharge from the ear, clean the ear gently with cotton wool on a match-stick (stick swab) before applying the ear drops.
2. Give APC tablets.

Refer the patient:

To the Subcentre:

- (i) If the patient has fever
(ii) If there is no relief after 24 hours of treatment.

To the Primary Health Centre:

- (i) If there is a foreign body in the ear
(Inform the Health Worker Male/Female)
(ii) If the patient has dizziness or disturbances of hearing.

11.1.11 Sore eyes

Sore eyes are caused by infection of the eyes or eyelids, irritation or injury by foreign bodies such as dust or thorns, or by chemicals such as pesticides.

Sore eyes are also found in children who have measles.

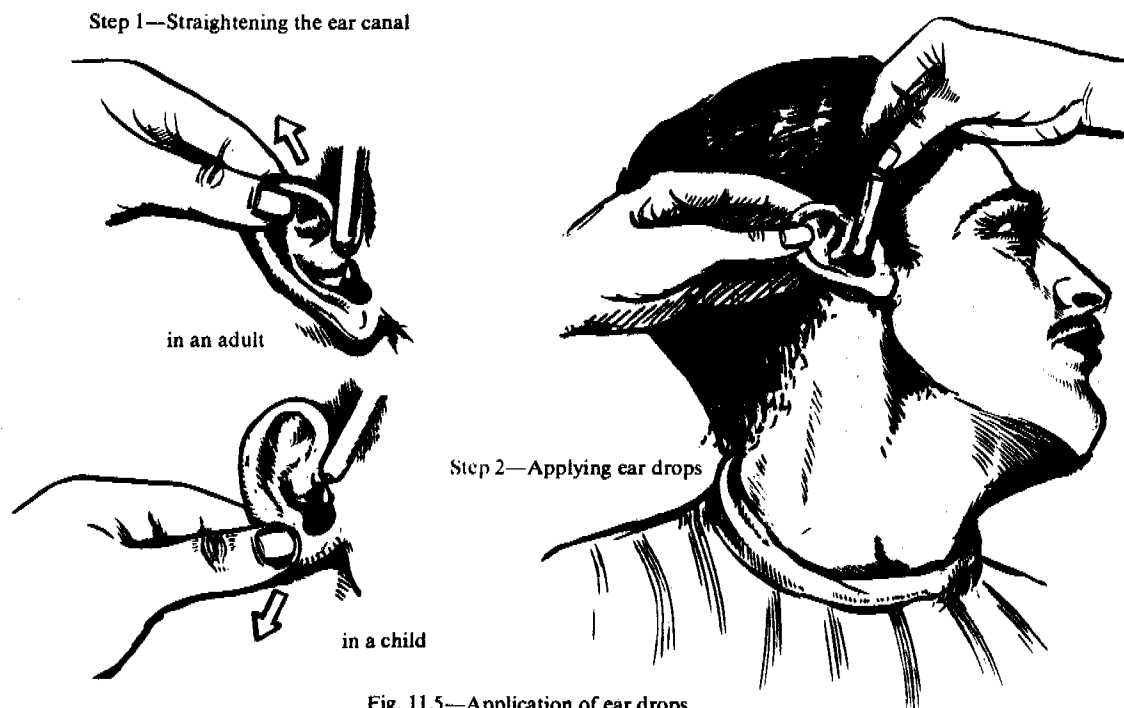


Fig. 11.5—Application of ear drops

When a patient has sore eyes, the eyes look red, there is watering, and the patient complains of a burning sensation and pain in the eyes.

Epidemics of sore eyes spread very rapidly and you are likely to see a large number of cases at one time in your area.

If a patient has sore eyes, proceed as follows:

1. Find out how long the patient has had sore eyes.
2. Ask if the patient has had any injury or foreign body in the eye.
3. Take the temperature.
4. Note whether the patient has any skin rash.

Treat the patient as follows:

1. Clean the eyes with boiled water and cotton wool. Always swab from the side of the nose outwards (see Fig. 11.6).
2. Apply sulphacetamide eye drops three times a day. Place the drops inside the lower eyelid as shown in Fig. 11.7.
3. Cover the eye with an eye pad and bandage (see Fig. 11.8).
4. Give APC tablets.
5. Keep the patient away from bright light.

Referral after treatment:

- (i) Transfer the patient immediately to the Primary Health Centre if there is an eye injury or a foreign body in the eye.
- (ii) Refer the patient to the Subcentre if there is no improvement after treatment for 24 hours.
- (iii) Inform the Health Worker (Male/Female) if a child with sore eyes has measles.

11.1.12 Boils, Abscesses and Ulcers

1. Boils and Abscesses

A boil is a red, painful swelling of the skin which is very commonly seen and which is caused by infection. If it is neglected, it develops into an abscess which contains pus and has to be opened up.

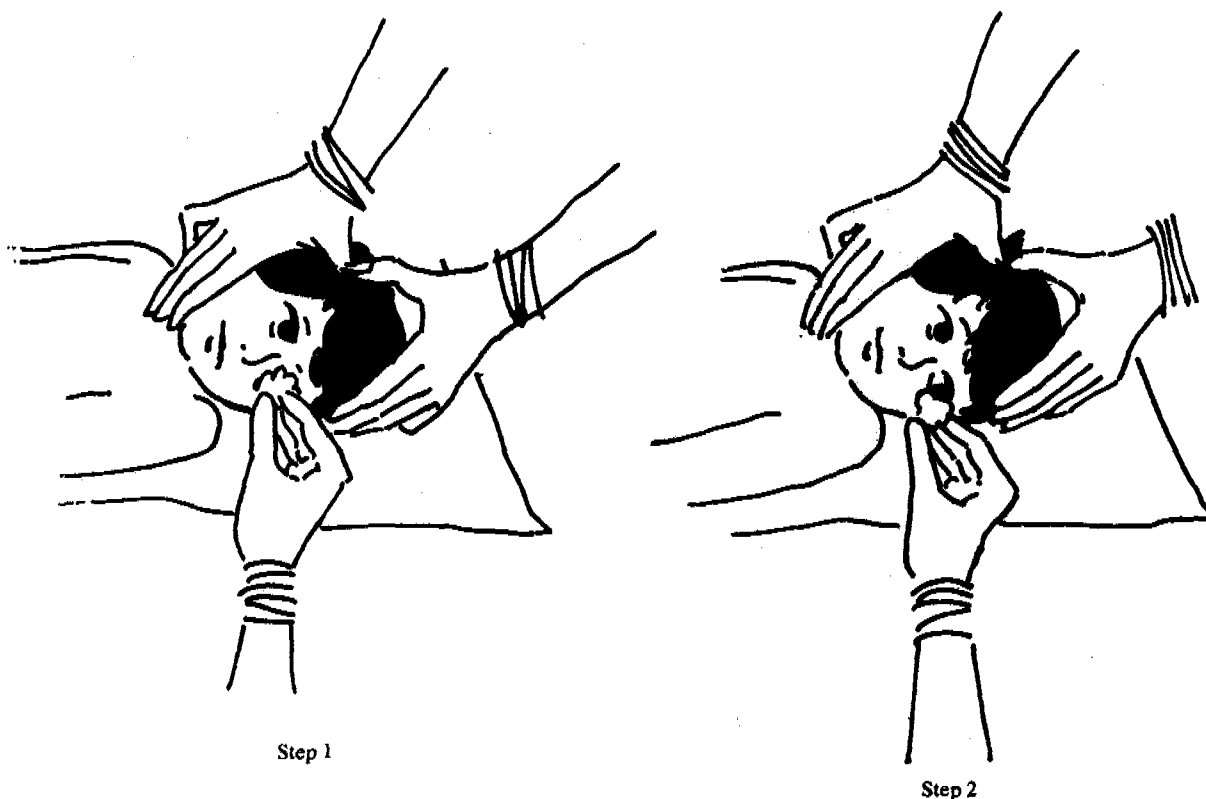


Fig. 11.6—Swabbing the eye

The condition occurs more frequently in children who are not kept clean or are badly nourished.

<i>Signs and symptoms</i>	<i>Treatment</i>
(i) Swelling (ii) Redness (iii) Tenderness (iv) Pain (v) Fever and headache may be present.	(i) Apply pieces of cloth wrung out of hot water in which neem leaves have been boiled. (ii) Keep the limb at rest. (iii) Give APC tablets.

Refer the patient to the Subcentre:

- (i) If there are red streaks and tenderness extending beyond the boil.
- (ii) If an abscess forms.
- (iii) If there is no relief after 2 days of treatment.

2. Ulcers

Ulcers or sores of the skin occur as a result of injury, infection, a poor diet, and in patients suffering from certain communicable diseases such as leprosy or sexually transmitted diseases.

An ulcer has the following characteristics:

- (i) The skin is broken.
- (ii) The area looks raw and red.
- (iii) There is a discharge which may be watery or may be foul-smelling and consists of pus.
- (iv) The area is painful.
- (v) There may be fever and headache.

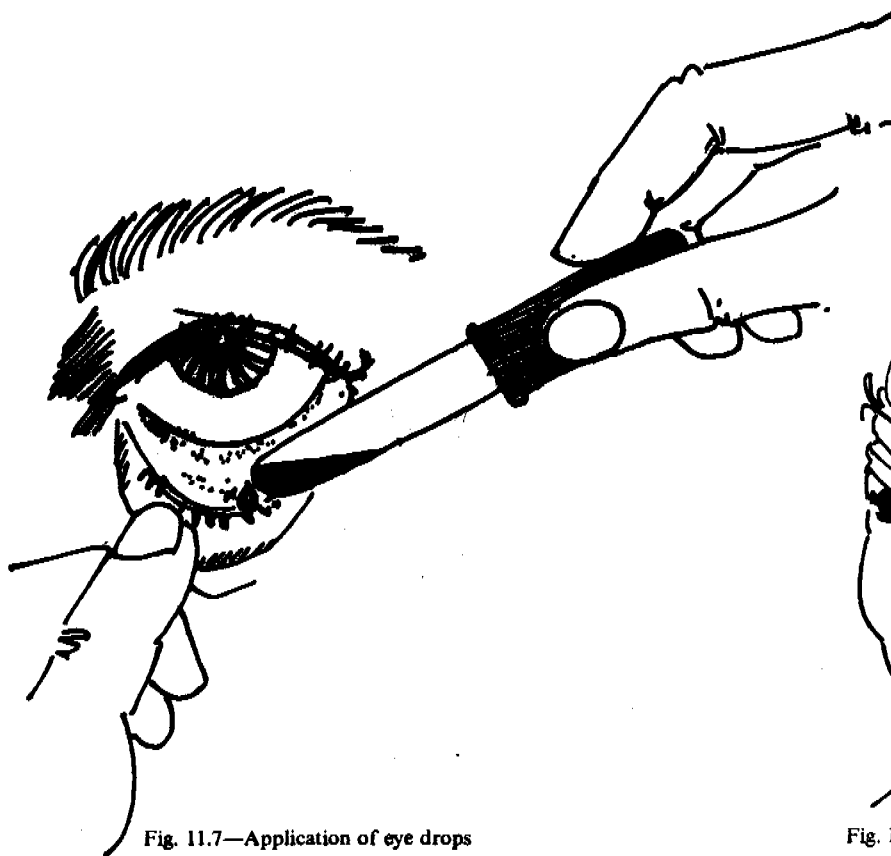


Fig. 11.7—Application of eye drops

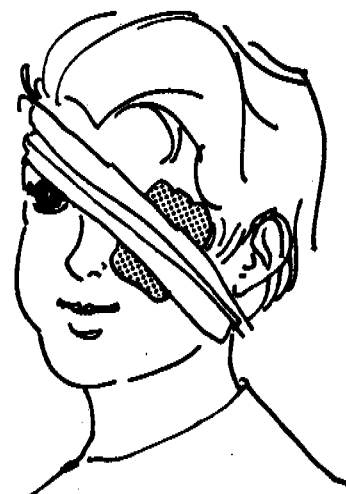


Fig. 11.8—Eye pad and bandage

When you see a patient with an ulcer, proceed as follows:

- (i) Ask how long the patient has had the ulcer.
- (ii) Note if there are any signs of malnutrition.
- (iii) Ask if the patient has any other symptoms, e.g., fever, headache or rash or tires easily.
- (iv) Take the temperature.

Treat the patient as follows:

- (i) Clean the ulcer with cotton wool and boiled water to which a few drops of antiseptic lotion are added. Clean away from the ulcer.
- (ii) Apply pieces of cloth wrung out of hot water to which antiseptic lotion has been added.
- (iii) Apply mercurochrome.
- (iv) Apply sulphanilamide ointment or dust with sulphonamide powder.
- (v) Apply a clean dressing and keep in place with a bandage or adhesive plaster.

Refer the patient to the Subcentre:

- (i) If there is fever
- (ii) If the patient has had the ulcer for more than one week
- (iii) If the patient has several ulcers or tends to get tired easily
- (iv) If the ulcer is on the genital organs with or without discharge
- (v) If there is no improvement after 2 days of treatment.

11.1.13 Scabies and Ringworm

1. Scabies

This is an infection of the skin in which there is a rash or tiny cracks appear in the finger webs,

the front of the wrists and elbows, the armpits, the waistline, the thighs and the external genitals. Itching is severe, especially at night.

Scabies is common among people who do not bathe regularly and is frequently seen in communities with poor personal hygiene. If you see a patient with scabies, you are likely to find that other members in the family also have scabies.

If you see a patient with scabies treat as follows:

- (i) Bathe with soap and water using a brush to open all the cracks.
- (ii) While the skin is slightly wet, apply benzyl benzoate emulsion over the whole body except the head and neck.
- (iii) Allow the body to partly dry.
- (iv) Apply a second layer of benzyl benzoate on the whole body.
- (v) Leave the emulsion on the body for 24 hours.
- (vi) Bathe thoroughly with soap and water.
- (vii) Put on clean clothes.
- (viii) Repeat the treatment for three days.

Note: All clothing and bedding should be washed well and if possible boiled.

Refer the patient to the Subcentre if there is no improvement after treatment.

2. Ringworm

Ringworm is an infection of the skin which appears as flat, ring-shaped areas with a red border and a lightly coloured scaly centre. It can occur on any part of the body including the scalp. Ringworm is accompanied by itching.

Treat a patient with ringworm as follows:

- (i) Bathe with soap and water.
- (ii) Break the scaly centre with a brush.
- (iii) Apply Whitfield ointment.
- (iv) Wear clean clothes.

Refer the patient to the Subcentre if there is no improvement after treatment.

11.2 Keep a record of the treatment given to each patient

You should maintain a Medical Care Register in which the following information should be recorded:

(1) Date. (2) Name. (3) Age. (4) House No. (5) Symptoms/Signs. (6) Treatment given. (7) Advice given. (8) Referral (to whom referred).

Note: See Appendix 11.1: Guide for the Use and Administration of Drugs for the dosages for different age groups, and Appendix 11.2: Contents of kit for Community Health Worker.

APPENDIX 11.1

Guide for the Use and Administration of Drugs

A. Drugs for internal use

S.No.	Drug	Uses	Dosage and administration					Remarks
			0-1 year	1-4 years	5-9 years	10-14 years	15 & above	
1.	APC tablets	(i) Common cold (ii) Sore throat (iii) Fever (iv) Headache (v) Backache (vi) Joint pains (vii) Toothache (viii) Earache (ix) Pain in abdomen	$\frac{1}{2}$ tablet dissolved in honey or water after feeds 3 times a day	$\frac{1}{2}$ tablet dissolved in honey or water 3 times a day	1 tablet 3 times a day	1 to $1\frac{1}{2}$ tablets 3 times a day	2 tablets 3 times a day	Tablets should not be taken on an empty stomach.
2.	Chloroquine tablets (150 mg per tablet)	(i) Malaria (presumptive treatment)	$\frac{1}{2}$ tablet with honey	1 tablet with honey	2 tablets	3 tablets	4 tablets	To be given in a single dose after taking thick and thin blood films. Tablets should not be taken on an empty stomach.
3.	Cough mixture	(i) Cough (ii) Sore throat	$\frac{1}{2}$ teaspoon 3 times a day	1 teaspoon 3 times a day	2 teaspoons 3 times a day	2 teaspoons 3 times a day	4 tea- spoons 3 times a day	
4.	Kaolin powder	(i) Diarrhoea	$\frac{1}{2}$ teaspoon 3 to 4 times a day	1 teaspoon 3 to 4 times a day	1 to $1\frac{1}{2}$ teaspoons 3 to 4 times a day	2 teaspoons 3 to 4 times a day	2 tea- spoons 3 to 4 times a day	(i) Mix powder in a little water in a cup and drink immediately without allowing powder to settle. (ii) Add more water to cup and drink mixture.
5.	Magnesium hydroxide tablets	(i) Constipation (ii) Vomiting & Nausea (iii) Indigestion	$\frac{1}{2}$ tablet with honey	1 tablet with honey	1 to 2 tablets	2 to 3 tablets	3 to 4 tablets	To be taken at bed time with water or milk. Single dose to be taken after food.

Contd.

Appendix 11.1—Contd.

S.No.	Drug	0-1 year	Dosage and administration				Remarks
			1-4 years	5-9 years	10-14 years	15 & above	
6.	Rehydration powder (chorosol)	(i) Dehydration	Dissolve powder in 1 litre of water and give small quantities to the patient throughout the day. In children, give 1 teaspoonful every 10 to 15 minutes.				

Note: You must be very careful in treating infants below one year of age. Instruct the mother to take the infant immediately to the Subcentre if the infant's condition gets worse (see section 7.4) or if there is no improvement within 12 hours.

B. Drugs for external use

S.No.	Drug	Uses	Method of administration
7.	Antiseptic lotion	(i) For cleaning wounds and ulcers	Add $\frac{1}{2}$ teaspoon of lotion to about $\frac{1}{2}$ a cup of boiled water. Place cotton swabs in lotion. Swab wound or ulcer from within outwards.
8.	Benzyl benzoate emulsion	(i) Scabies	For technique of application see section 11.1.13.
		(ii) Lice	For technique of application see section 4.5
9.	Menthol and eucalyptus oil ointment	(i) Colds	Apply ointment in nostrils. Rub ointment on throat, chest and back and cover with a warm cloth. <i>Steam inhalation:</i> Boil water in a small vessel. Add 1 teaspoon of ointment to the hot water and inhale the steam keeping the head under a towel. In the case of a small child the mother should keep the child on her lap with a towel covering the child and the steam inhalation. She should take care to prevent the child from burning or scalding itself.
		(ii) Coughs	
10.	Mercurochrome 2%	(i) Cuts and scratches (ii) Dog bite	Wash wound with clean water and antiseptic lotion. Apply mercurochrome with a cotton swab. Apply a clean dressing and bandage.
11.	Methyl salicylate ointment	(i) Headache (ii) Backache (iii) Pain in joints (iv) Sprains	Rub ointment gently on painful area. Cover with a piece of warm cloth or apply a firm bandage. Repeat treatment as necessary to relieve pain.
12.	Methylated spirit	(i) To clean skin before taking blood for making thick & thin blood films	Take some spirit on a cotton swab. Press the left ring finger of the patient tightly so that blood collects at the tip. Swab the tip of the finger and prick the clean finger with the Hagedorn needle (see section 1.2 for preparation of blood films).
		(ii) To sterilize Hagedorn needle	Always keep the Hagedorn needle used for pricking the finger in a bottle containing methylated spirit.
13.	Potassium permanganate	(i) In snake bite	Incise site of the bite, squeeze out poison and apply crystals to the wound.
		(ii) Sore throat	Add crystals to cold water until the water is coloured light purple.
		(iii) Toothache	Use this solution as a gargle, mouthwash, or for cleaning wounds and ulcers.
		(iv) To clean wounds and ulcers	The solution must be prepared fresh and used immediately.

Contd.

Appendix 11.1—Contd.

<i>S.No.</i>	<i>Drug</i>	<i>Uses</i>	<i>Method of administration</i>
14.	Sulphacetamide eye and ear drops (10%)	(i) Sore eyes	After cleaning affected eye with boiled water and cotton wool, instil 2 drops inside lower eyelid (4 times a day for 2 days).
		(ii) Earache and ear discharge	After cleaning affected ear with cotton wool on a match stick, instil 2 drops inside ear (3 times a day for 2 days).
15.	Sulphanilamide ointment	(i) In infected wounds and ulcers	Clean wound with antiseptic lotion. Dry with clean cotton swab and apply ointment on wound or ulcer. Apply clean dressing and bandage.
		(ii) In burns and scalds	Clean wound with soap and water. Apply ointment on burn or scald and cover with clean dressing.
16.	Sulphonamide dusting powder	(i) In fresh, clean wounds	Clean wound or ulcer with antiseptic lotion. Dry with a cotton swab. Dust powder in the wound or ulcer. Cover with dressing and bandage.
		(ii) In small ulcers	
17.	Whitfield ointment	(i) Ringworm	Bathe with soap and water and dry the skin well. Apply ointment on affected area. (4 times a day for 1 week)

APPENDIX 11.2

Contents of Kit for Community Health Worker

1. Slides (5) in slide box
2. Cloth for cleaning slides
3. Hagedorn needle
4. Pencil
5. Clinical oral thermometer
6. Graduated medicine glass
7. Scissors
8. Razor blade
9. Cotton wool
10. Gauze
11. Roller bandage
12. Triangular bandage
13. Adhesive plaster
14. Soap dish and soap
15. Towels (2)
16. Nirodh packets (50)
17. Suitable containers for drugs (17)
18. Forms for reporting of blood smears
19. Franked envelopes addressed to the Primary Health Centre
20. Exercise book (200 pages)
21. Diary
22. Health Education Materials (flip chart on family welfare, set of contraceptives)
23. Manual for Community Health Worker
24. Kit-bag

Medicines to be carried by Community Health Worker**For internal use**

1. *Aspirin, Phenacetin and Caffeine (APC)* tablets
2. Chloroquine tablets
3. Cough mixture
4. Kaolin powder
5. Magnesium hydroxide tablets
6. Rehydration powder (chorosol)

For external use

7. Antiseptic lotion
8. Benzyl benzoate emulsion
9. Menthol and eucalyptus oil ointment
10. Mercurochrome 2 per cent
11. Methyl salicylate ointment
12. Methylated spirit
13. Potassium permanganate crystals
14. Sulphacetamide eye and ear drops 10 per cent
15. Sulphanilamide skin ointment
16. Sulphonamide dusting powder
17. Whitfield ointment

Additional material to be kept with selected members of the community

1. Bleaching powder in pots

Mental Health

12.1 Recognize signs and symptoms of mental illness and refer these cases to the Health Worker (Male/Female)

Though you are not expected to treat nervous and mental diseases you must know how to recognize these conditions and refer them to the Health Worker. *Early recognition leads to early treatment and early recovery.*

Report to the Health Worker any person who behaves as follows:

- (i) Says things which cannot be understood
- (ii) Is violent without reason
- (iii) Is behaving strangely in a socially unacceptable manner
- (iv) Suffers from fits and/or loss of consciousness
- (v) Has become very quiet and does not talk to people
- (vi) Claims to hear voices or see things which others do not hear or see
- (vii) Claims to get possessed by bhutas and spirits.
- (viii) Has become unusually cheerful and brags that he is a big man, when he is not really so
- (ix) Has become very sad lately and cries without reason
- (x) Threatens to commit suicide
- (xi) Has attempted suicide
- (xii) Has lost his memory or is losing his memory
- (xiii) Drinks too much.

12.2 Give immediate assistance in emergencies associated with mental illness

It may happen that a patient is in need of urgent help but the Primary Health Centre is too far away and the Health Worker is not available. Under these circumstances, you as a Community Health Worker must offer immediate assistance to the extent possible. The following are the circumstances in which you are required to offer your help:

1. Very excited patient: Usually such a patient is brought 'tied up' due to a fear of the relatives that he may become violent. Violent behaviour by a patient is the result of his fear that others may harm him. Tying him up only increases this fear. When you see a patient in this state, proceed as follows:

- (i) Untie the patient.
- (ii) Talk to him soothingly and tell him that you will see to it that nobody beats him or harms him.
- (iii) Give him food and fluids because excited patients may not have eaten or taken any fluids.

2. Very dull patient: A patient may be brought to you with the history that he has become very quiet and lethargic. Such a patient might stop all activities including going to the toilet and might be soiling his clothes. When you see a patient in this state, proceed as follows:

- (i) Talk to the patient.
- (ii) Gently coax him to eat and drink.
- (iii) Clean him up and take him to the Primary Health Centre as soon as you can.

3. Suicidal patient: Whenever a patient threatens that he might kill himself *take him seriously.* When you see a patient in this state, proceed as follows:

- (i) See that someone is always with the patient until he is taken to a doctor.
 - (ii) Remove all sharp instruments and poisons from within his reach.
- 4. Person who has had too much alcohol:** People may get irritable and even violent after drinking. The best way to deal with a drunken person is to let the patient sleep.
- 5. Fits:** When you see a patient with fits, proceed as follows:
- (i) Take the patient to a safe place and see that he does not get hurt by hitting himself against a hard object.
 - (ii) Put a rolled-up piece of cloth in the mouth so that the patient does not bite his tongue.
 - (iii) Do not give him anything to drink during or soon after the fit. It might choke him.
- 6. Without wasting any time take the patient to the doctor if mental symptoms have appeared immediately or soon after:**
- (i) Child birth
 - (ii) High fever
 - (iii) Head injury
 - (iv) Fits
 - (v) Dog bite.

12.3 Educate the community about mental illness

You must make the people under your care aware of the following facts:

1. Mental illness is like any other illness and is not due to bhutas, spirits or witchcraft.
2. There is no shame in having a case of mental illness in the family, just as there is no shame in having a person with fever.
3. Mental illness can be cured. The recovery is quick and may be complete if the patient is seen in the early stages.
4. The treatment of mental illness is prolonged and must be continued according to the advice of the doctor even after the patient becomes apparently normal.
5. Marriage is not a cure for mental illness. The stress of married life will only increase the problem.
6. A mentally disturbed patient on treatment must be kept occupied in whatever job he can do. Keeping the patient unoccupied makes him more disturbed.
7. One must not make fun of patients with mental illness. It makes them worse and induces them to excitement.

CHAPTER 13

Ayurveda

The three important factors for maintaining positive health are:

1. Proper diet
2. Proper sleep
3. Spiritual life.

The use of proper diet in appropriate quantities at the proper time leads to physical and mental health whereas improper use of food will lead to various physical and mental illnesses.

13.1 Diet

Food should be taken in quantities that can be digested easily. No meals should be taken before the previous meal is digested. It should be taken at the appropriate place in a comfortable posture and in clean surroundings. It should never be taken when a person is in a mentally disturbed condition or extremely tired. The meal should be properly cooked and should contain all the essential ingredients in proper combination. Cereals like rice or wheat, vegetables, butter, ghee, buttermilk, mutton, etc., should constitute the food.

13.2 Sleep

Sound and uninterrupted sleep promotes health, strength and longevity. Irregular sleep causes various diseases and mental and physical debility (weakness).

13.3 Spiritual life

Happiness of mind alone ensures a healthy body. Emphasis on the spiritual mode of living helps to acquire mental peace leading to physical well-being.

Certain basic principles to be observed every day for maintaining health are as follows:

1. Rising early in the morning.
2. Regular evacuation of the bowels.
3. Cleaning the hands, feet and face with water or other materials.
4. Cleaning the teeth and tongue with a green twig such as neem, kath, etc., and rinsing the mouth with water.
5. Washing the face and eyes with cold water.
6. Washing the body and head with cold water.
7. Massaging the body and head with oil to keep the skin healthy and to prevent headache.
8. Bathing twice daily in the morning and evening refreshes the body, removes any odour and dirt, and increases the appetite.
9. A daily walk in the morning increases bodily strength and mental faculties.
10. Minor physical exercises are also useful in the same way.
11. Personal cleanliness—the hair, body and nails should be kept clean.
12. The clothes worn should be according to the season, such as a light dress in summer and a heavy dress in winter.
13. The feet should be protected by footwear.

13.4 Seasonal conduct

It will be useful to observe certain special precautions during different seasons, viz., winter, summer and the rainy season as follows:

1. During summer, cold and fluid things with milk, sugar, ghee and rice should be taken. Sour, pungent, fried and hot things should be avoided.

2. During the rainy season one should eat less. Sleep in the day time should be avoided.
3. During winter the digestive power increases, hence rich and heavy food should be taken. Cold articles of food and drinks should be avoided.

13.5 Social conduct

Good social conduct also promotes health and peace of mind such as reverence to elders and domestic animals, cheerful disposition, self-control, hospitality and charity. One should remember to cover the mouth while yawning, sneezing or laughing.

Proper observance of these simple rules will ensure physical and mental health.

13.6 Ayurvedic treatment for common ailments

13.6.1 Fever

Fever is not a disease but only a symptom and can occur in many diseases. Different types of signs and symptoms accompanying the fever are as follows:

1. **Fever with cold and cough:** This is the commonest type of fever which occurs due to exposure to cold or infections from persons affected by cold. There may be severe bodyache, headache, cough, running nose and moderate to high fever.

The patient should be advised to take hot water, milk, tea, coffee, hot food and to avoid exposure to cold, cold water and other cold drinks and food. Gargling with warm salt water two or three times a day should also be advised. Tribhuvana Kirti Rasa and Godanti Bhasma with honey may be given three times a day. Decoction of Tulasi is also effective. Put Tulasi leaves, pepper powder and Adaraka paste (ginger paste) in two cups of boiling water, cover it for 5 minutes, filter it through linen. The decoction can be taken with gude or misri. A small quantity of Dhaniya and South put in water and boiled for some time, and filtered may also be given.

2. **Continuous fever:** In this case the temperature is almost constant and never falls below 100°F (37.7°C).

The patient should be referred to the PHC for proper treatment. Meanwhile the patient should be instructed not to eat anything except milk with sugar or glucose in water. Boiled and cooled water can be taken in case of thirst. Tulasi and Dhaniya and South decoction can also be given to the patient.

3. **Fever with shivering:** If there is fever with shivering followed by sweating every day or on alternate days especially in the mornings it may be malarial fever.

Sudarsanaghana Vati should be given with juice of adarak (ginger).

4. **Fever due to sun stroke:** This occurs due to direct exposure to the sun. High temperature without sweating may be noticed. Urination may be scanty in drops or there may be complete suppression.

The patient may be advised to take plenty of fluids to drink and also fruits like mango, lemon, tarbuja, kakari, kharbuja, rasabhari, etc. The fever should be brought down by the application of wet cloths soaked in cold water. Refer the patient to the Subcentre if the fever does not come down.

5. **Fever with indigestion, diarrhoea or chill:** Sanjeevani Godanti should be given.

13.6.2 Cough

Cough is a symptom of diseases of the respiratory system of the body. It may be a dry cough or with phlegm.

Give Sitopaladi with honey and Khadeeraguti for chewing. Gargling with salt water should also be advised. The patient should avoid ice and cold drinks. Hot food and drinks should be advised.

If the cough persists, refer the patient to the Subcentre.

13.6.3 Vomiting

Vomiting may be the result of several diseases. It is generally caused by irritation of the stomach.

Give Sootasekhara and Sankha Bhasma with water or nimburas. Milk diet and boiled water may be advised. To prevent dehydration and weakness plenty of fluids (water with glucose) may be given. If the vomiting persists refer the patient to the Subcentre.

13.6.4 Diarrhoea

Passing of three or four soft or semiliquid stools may be noticed.

Give Jatiphaladi with honey. Give plenty of fluids to drink. Light food without spices may be given.

If there are continuous watery motions give only Karpoora Rasa in the prescribed dose.

13.6.5 Indigestion

There is a feeling of discomfort after taking food, belching, and a vomiting sensation, sometimes with diarrhoea and fever.

Give Lashunadi Vati with hot water. Plain water or ginger water boiled and cooled may be given to the patient from time to time. The patient should be advised not to take any food till the appetite returns.

If there is a burning sensation in the chest give Sudarsana Vati and Sankha Bhasma.

If there is vomiting with indigestion give Sudarsana Vati with water.

If there is fever with indigestion give Sanjeevini Vati.

If there is indigestion with abdominal pain give Sankha Vati.

If there is indigestion with gas formation give Lashunadi Vati.

13.6.6 Constipation

Difficulty in passing stools is felt. A feeling of fullness in the abdomen, loss of appetite, uneasiness and headache may be noticed.

The patient should be advised to take plenty of water, sugar, milk and ghee, green vegetables, fruits, and tea.

Give Haritakyadi at night. Isabgol husk in water or milk is also useful. If there is no improvement refer the patient to the Subcentre.

13.6.7 Pain in abdomen

The pain is felt one or two hours after taking food. The pain is more when the stomach is empty and may be relieved by taking light food. There may also be continuous pain due to other factors.

Give Sankhavati or Lashunadi Vati with warm water. Give 2 teaspoons of ginger juice or one teaspoon of garlic juice. Light food and sweet buttermilk are advised. Rice, pulses, spices, oils, ghee and alcohol should be avoided.

If the pain is in the lower part of the abdomen give Sankhavati. If there is pain in the right side of the abdomen or if the pain is accompanied by vomiting refer the patient to the Subcentre.

13.6.8 Joint pain

There is pain and swelling of the joints. This condition in children below the age of 12 years is usually due to rheumatic fever. Advise complete bed rest. Control the fever as in general fever and refer the child to the PHC for proper care and treatment.

In the case of adults, the patient complains of joint pain and inflammation and difficulty in walking after a period of rest.

Give Yogaraja Guggulu or Simhanada Guggulu with warm water. Rub the joints with Panchaguna Taila after warming. Joint pain can also be removed by fomentation.

If there is inflammation of many joints all at a time specially the small joints of the hands and feet (which is normally seen more in the female than in the male) the patient should be given Simhanada Guggulu.

Dry hot fomentation with sand may also be advised.

Dhatura leaves are boiled with mustard oil till the leaves become dry and brown. The oil is filtered through linen and used for massage of the joints.

13.6.9 Backache

Backache is a symptom of several diseases.

Give Chandraprabha Vati with hot water. Apply Panchaguna Taila externally on the affected parts after warming a little. Hot water fomentation may also be advised.

13.6.10 Headache

Headache is also a symptom associated with many diseases.

Give Godanti Pippali Mool Mishrana.

Refer the patient to the Subcentre if the headache persists for long or is accompanied by stiff neck, dizziness, vomiting or swelling of the feet.

13.6.11 Skin diseases

There are several types of skin diseases.

1. **Scabies:** Itching with or without discharge occurs. It may be with or without rashes.

The patient should be kept away from others as the disease is very infectious. The patient should take a bath in running water. Clothes and towels used by the patient should be kept separately. Gandhakamalahara should be applied on the skin. Arogyavardini and Gandhaka Rasayana with hot water or honey is advised.

2. **Ringworm:** This is also an infectious disease with intensive itching and mild oozing.

Apply Gandhakamalahara after bathing with nimb water. The patient should wear clean clothes.

13.6.12 Boils and abscesses

Apply externally Dasangalep and when the boil bursts clean the pus and blood and apply Jatyadi Taila.

Give Arogyavardini and Gandhakarasyana with hot water or honey.

13.6.13 Burns and scalds

Apply Jatyadi Taila on the affected parts.

Refer to the Subcentre.

13.6.14 Cuts and scratches

Wash the affected parts with warm water.

Apply Jatyadi Taila on the affected area.

Refer to the Subcentre if it does not heal or if other symptoms develop.

13.6.15 Dog bite

Clean the affected area with soap and apply Jatyadi Taila with Apamarga Kshara on the affected area.

Watch the dog for 10 days. If it becomes savage and never stops barking and saliva runs out of its mouth continuously, or if the dog dies, the patient should be referred to the PHC. If the dog stays healthy there is no need to refer the patient to the PHC. If the dog cannot be identified or traced, refer the patient to the PHC for treatment.

13.6.16 Snake bite

Tie a cord tight around the limb just above the bite. Using a clean razor blade or a clean knife make a cut 1 cm deep and allow the bleeding to continue for some time. Clean the wound with warm water. Give Vilvadi Gutika along with warm water or honey.

13.6.17 Insect bites

Wash the affected parts with warm water or rub with cut onion. Give Vilvadi Guti with warm water. Apply Vishamarichyadi Taila externally.

13.6.18 Scorpion sting

Wash the affected area with warm water. Apply Vishamarichyadi Taila externally. Give Vilvadi Guti with warm water.

13.6.19 Lice

Wash the hair with warm water and neem water. Apply Kampillakadi curna. Allow it to remain for a few hours and wash the hair with Besan or Shikakai. Repeat for 3 to 4 days.

13.6.20 Bleeding

Bleeding may start from any part of the body due to a blood disorder or due to other diseases.

The patient should be advised to remain in a cool place. Exposure to the sun should be avoided. Simple food without spices and having plenty of milk, sugar and seasonal fruits should be advised. In case there is no relief refer the patient to the Subcentre. Durva Swarasa Vasa Swarasa should be given. Application of Haridra Churna should be done.

13.6.21 Eye trouble

Sore eyes are caused by infection of the eyes or foreign bodies.

Clean the eyes with boiled cooled water. Apply Nisajala three times a day. Keep the patient away from bright lights. Transfer the patient to the PHC if there is an eye injury or a foreign body in the eye or if there is no improvement after treatment within 6 hours.

13.6.22 Ear ache

Apply Nirgundi Taila drops in the affected ear. If there is any discharge from the ear, clean the ear gently with cotton wool on a matchstick (stick swab) before applying the ear drops.

If there is a foreign body in the ear or disturbance in hearing or if there is no relief from pain refer the patient to the Subcentre.

13.6.23 Toothache

Toothache is a common complaint due to proper attention not being paid to keep the teeth clean after meals by regular brushing and mouth wash.

Lavangadi Taila soaked in a small cotton plug may be put on the affected tooth. Advise the patient to wash out the mouth frequently with lukewarm water containing salt. A cotton plug dipped in banana or papaya latex may be applied. The pain will be relieved usually after three or four applications.

13.6.24 Wounds

Clean the wounds with soap and water. Apply Jatyadi Taila after cleaning.

13.6.25 Sprains

Acute pain in the muscles and difficulty in the movements of the affected parts may be noticed. The condition will be relieved with Panchaguna Taila with a little warm massage.

Note: See Appendix 13.1: Guide for the Use and Administration of Ayurvedic Drugs for dosage.

APPENDIX 13.1

Guide for the Use and Administration of Ayurvedic Drugs**A. For internal use**

S.No.	Drugs	Uses	Dosage			Remarks
			Infants	Children	Adults	
1.	Chandraprabha Vati	Backache, urinary troubles, pain in the joints, general weakness, uterine bleeding, white discharge and other uterine disorders	$\frac{1}{4}$ to $\frac{1}{2}$ tablet 3 times daily	1 tablet 3 times daily	2 tablets 3 times daily	With water.
2.	Arogyavardhini Gandhakarasa-yana	Boils and abscesses and all types of skin diseases	— do —	— do —	— do —	— do —
3.	Tribhuvana Kirti Godanti	Cold, fever, headache	$\frac{1}{4}$ to $\frac{1}{2}$ tablet 3 times daily	$\frac{1}{2}$ tablet 3 times daily	1 tablet 3 times daily	With honey.
4.	Haritakyadi	Constipation, piles	$\frac{1}{2}$ to 1 tablet	2 tablets	4 tablets	At bed time.
5.	Sitopaladi Gudi	Cough, and sore throat, swasa rogas	$\frac{1}{4}$ to $\frac{1}{2}$ tablet 3 times daily	1 tablet 3 times daily	2 tablets 3 times daily	At bed time.
6.	Khadceragudi	Cough, sore throat and mouth infection	—	—	1 to 3 tablets 3 times daily	For chewing.
7.	Jatiphaladi	Diarrhoea, dysentery, indigestion	$\frac{1}{4}$ to $\frac{1}{2}$ tablet 3 times daily	1 tablet 3 times daily	2 tablets 3 times daily	With honey.
8.	Karpoora Rasa	Diarrhoea (acute)	— do —	— do —	— do —	— do —
9.	Sudarsanaghana Vati	Fever	— do —	— do —	— do —	With water.
10.	Sanjeevani Godanti	— do —	— do —	— do —	— do —	— do —
11.	Godanti Pippali Mool	Headache, all types and general pain	— do —	— do —	— do —	— do —
12.	Lashunadi Vati	Indigestion, abdominal pain, gas trouble	— do —	— do —	— do —	— do —
13.	Vilvadiguti	Insect Stings	— do —	— do —	— do —	— do —
14.	Simhanada Guggulu	Joint and other body pains	— do —	— do —	— do —	— do —
15.	Yogaraja Guggulu	Joint pains	— do —	— do —	— do —	— do —
16.	Sankhavati	Pain in abdomen, indigestion	$\frac{1}{4}$ to $\frac{1}{2}$ tablet 3 times	$\frac{1}{2}$ tablet 3 times	1 tablet 3 times	— do —

Contd.

Appendix 13.1—Contd.

S.No.	Drugs	Uses	Dosage			Remarks
			Infants	Children	Adults	
17.	Vilvadi Guti	Scorpion Sting	$\frac{1}{2}$ to $\frac{1}{4}$ tablet 3 times	1 tablet 3 times	2 tablets 3 times	— do —
18.	Sootasekhara Sankha Bhasma	Vomiting, indigestion, fever	— do —	— do —	— do —	— do —

B. For external use

19.	Panchaguna Taila	For external use as indicated				
20.	Dasanga lep	— do —				
21.	Jatyadi Taila	— do —				
22.	Vishamarichyadi Taila	— do —				
23.	Kampilaka Churna	— do —				
24.	Lavangadi Taila	To be applied on gums				
25.	Nishajal	To be used as eye drops				

Yoga for Health

Regular practice of Yoga not only helps to maintain bodily health but also to improve mental health and peace of mind. Among 8 different branches of Yoga, Asanas and Pranayamas can be practised easily.

14.1 Asanas

20 minutes daily in the morning can be devoted for Asanas and Pranayamas (Asana 15 minutes Pranayama 5 minutes). Some of the important Asanas are:

1. **Sarvangasana:** This is done by at first lying flat on the back on the ground and then raising the leg and back until one is standing on the shoulders as in fig. 14.1 (3 to 5 minutes).

2. **Paschimottanasana:** At first the person lies flat on the ground and then raises and bends forward the trunk of his body in such a way that it touches the extended legs without bending the knees as in fig. 14.2 (one minute).

3. **Halasana:** In this posture the person lies on the back, then raises the legs and back and turns his legs in such a way that the toes of his legs touch the ground over his head as in Fig. 14.3 (one minute).

4. **Matsyasana:** This Asana is performed after doing Padmasana in which the legs are folded. Then the person lies down on the ground in such a way that only the head and buttocks touch the ground and the back remains in the form of an arch as in fig. 14.4 (one minute).

5. **Shirsasana:** In this Asana the person stands on his head. During the performance of this Asana the head should rest on a pillow or on the joined fingers of his own hands as in fig. 14.5 (3 to 5 minutes).

6. **Bhujangasana:** In this Asana the person lies down on the floor face down position. Then he lifts up the upper half of the body by supporting it with extended hands, forearm and arm as in fig. 14.6 (one minute).

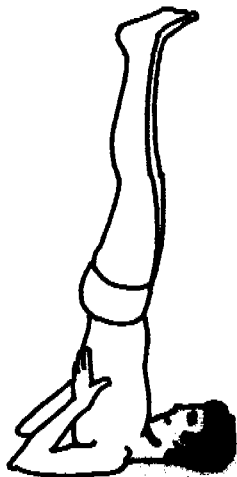


Fig. 14.1—Sarvangasana



Fig. 14.2—Paschimottanasana



Fig. 14.3—Halasana



Fig. 14.4—Matsyasana

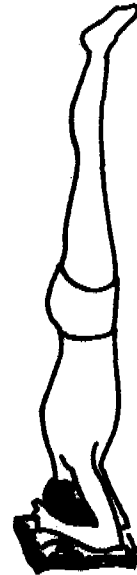


Fig. 14.5—Shirsasana

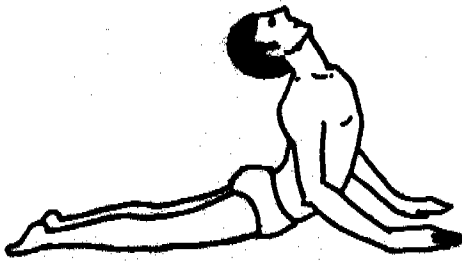


Fig. 14.6—Bhujangasana

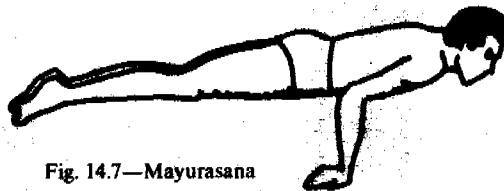


Fig. 14.7—Mayurasana



Fig. 14.8—Shalabhasana



Fig. 14.9—Pranayama

7. Mayurasana: In this posture the person initially lies on the floor in the face down position and then raises the trunk supporting it with the arms and then lifts up his legs in a straight position and the head in a position of looking forward as in fig. 14.7 (one minute).

8. Shalabhasana: In this, the person lies in the face down position and tries to lift his legs up without bending his knees. The upper part of the body remains on the ground and the arms are kept extended by the side of the trunk to give full support to the body weight as in fig. 14.8 (one minute).

14.2 Pranayama

There are many methods of pranayama. However, one can follow one of the common methods for every day practice. In this method the person sits in a comfortable position on the ground and then breathes in by the left nostril for two seconds after closing the right nostril with his right thumb. Then he holds the breath for 8 seconds and breathes out slowly through the right nostril for 4 seconds. Then he breathes in from the right nostril, holds the breath and then breathes out from the left nostril in the same proportion of 2:8:4 seconds. He can repeat this 20 times to give the desired result (see Fig. 14.9).

Unani Treatment for Common Ailments

Note: Give the following simple treatment for the following signs and symptoms. (For dosage refer to Appendix 15.1). Refer the patient to the Subcentre if there is no relief within a reasonable time.

15.1 Fever

Fever is not a disease. It manifests itself in many diseases. In infants and children high fever often results in convulsions and hence it is necessary to control the fever quickly.

If there is fever with shivering and sweating or without any accompanying signs and symptoms give the patient *Qurs Mubarak*. If there is headache with fever give *Qurs Shifa*. The patient should be advised to remain in bed and take a liquid diet. Cold wet cloth packs may be applied on the forehead in case of high fever.

If the fever does not come down within 2 days or other signs and symptoms develop such as stiff neck, vomiting, convulsions or unconsciousness, refer the patient to the Subcentre.

15.2 Sunstroke

Severe headache with high fever, excessive thirst and restlessness may be seen in a case of sunstroke. The patient should be asked to take rest in a cool place and his clothes should be loosened. Cold water or ice should be rubbed over the face, neck, chest and in the armpits. A cloth soaked in *Araq Gulab* and *Sirka* should be applied frequently on the forehead. Cold water or lemon juice should be given frequently.

15.3 Cold

Cold is a common condition which occurs in the rainy season or in winter. Sneezing, running nose and headache, bodyache and a feeling of weakness may be noticed with or without fever.

Give the patient *Qurs Nazla*. Steam inhalation with 5 drops of *Araq Ajeeb* in half a cup of hot water may be advised.

15.4 Cough

Cough is a common symptom associated with diseases of the throat or lungs, sometimes accompanied by fever.

Give the patient *Qurs Surfa*. In case of sore throat with cough, gargling with salt water or water boiled with mulberry leaves should be advised two or three times a day.

If there is chronic cough with loss of weight or if cough is accompanied by sputum or spitting of blood or difficulty in breathing refer the patient to the Subcentre.

15.5 Vomiting

Vomiting may be due to several causes. It may be accompanied by pain in the abdomen, diarrhoea, constipation, indigestion, headache or fever.

Give *Araq Ajeeb* 3 drops in a little water or *Qurs Zahar Mohra*. Give ice cold water or lemon juice in small quantity.

15.6 Diarrhoea

Passing of frequent loose or watery motions due to infection or dietetic errors may occur with or without pain in the abdomen. Sometimes vomiting may also occur.

Give a light diet like Kichri with Moong Dal. Give *Qurs Zahar Mohra* or *Qurs Haiza*.

In case of cholera or diarrhoea in an epidemic form, the patient should be referred to the PHC immediately.

15.7 Indigestion

Heaviness and pain in the stomach, lack of appetite, a vomiting sensation or sometimes diarrhoea may be noticed.

The patient should not be given any diet till the appetite returns. Give *Sufoof Chutki*. If there is indigestion with vomiting give *Qurs Zahar Mohra*. If there is diarrhoea give *Qurs Haiza*. Give *Araq Ajeeb* 5 drops in half a cup of water.

15.8 Constipation

There is retention of stool for a period exceeding 24 hours. The patient may feel pain and heaviness in the abdomen, loss of appetite and headache. The patient cannot pass a motion naturally without medicine.

A soap water enema should be given before starting medicine. Give *Qurs Tinkar* for adults and *Habb-e-Usara Rewand* for children. The patient should be advised to take green leafy vegetables, fruit juice and plenty of water. If there is no relief after treatment refer the patient to the PHC.

15.9 Joint pain

Pain in the joints may be due to injury, infection or ageing.

Give *Qurs Hudar*. Apply *Roghan Surkh* on affected joint. Fomentation of the joints with a hot water bottle or hot sand may be advised. Cover the joint with a warm cloth or bandage. A child with joint pains accompanied by fever should be referred to the PHC immediately.

15.10 Backache

Backache may be caused by strain or injury or it may be the symptom of some other disease. Ask the patient to take rest. Give *Qurs Hudar*. Rub the back with *Roghan Surkh*. Foment the affected part with a hot water bottle or hot sand.

15.11 Headache

Like fever, headache is also a symptom which occurs in many diseases. Give *Qurs Shifa* or *Qurs Siras* and apply *Araq Ajeeb* and *Sirka* on the forehead.

If the headache is due to other symptoms such as sore eyes, earache, toothache, cough or cold, these symptoms should be treated as indicated.

15.12 Scabies

This is an infection of the skin in which eruption appears in between the fingers and toes, the front of the wrists, elbows, arm pits and waistline, with severe itching. Sometimes it is dry and sometimes it is wet.

Advise the patient to take a bath with soap and water in which neem leaves are boiled. Apply *Marham Kharish* at night. The patient should be advised to wear clean clothes and avoid hot spicy food and sweets.

15.13 Ringworm

This is an infection of the skin which appears in reddish coloured rings on the skin accompanied by itching.

Clean the area with warm water in which neem leaves are boiled. Apply *Roghan Kamila* and *Marham Kharish*.

15.14 Boils and abscesses

This is a red, painful swelling of the skin containing pus. Boils occur mostly in rainy and

summer seasons. Clean the surface with hot water and apply *Marham Kharish*. When the abscess opens apply *Marham Ral*.

15.15 Burns and scalds

For minor burns resulting in blisters apply *Marham Ral*. Do not break the blisters. Particles of clothing or other materials remaining in the area of the burn should be left alone and only the cloth around the wound should be carefully cut away. If the area of the burn is large refer the case to the PHC.

15.16 Cuts and scratches

Wash the affected part with water and apply *Marham Ral* or apply *Roghan Kamila*. Put on a clean bandage.

15.17 Dog bite

The dog should be watched for 14 days. If the dog has fits, saliva runs out of its mouth, it is continuously barking and no longer eats, the patient should be referred to the PHC immediately and the dog should be killed.

In other cases give *Tiryaaq Sumoom*. Apply *Marham Sumoom* on the affected part after cleaning. Give raw garlic or onion to the patient to eat.

15.18 Snake bite

Tie a cord tightly around the limb 8 cm above the bite and one more cord 8 cm higher. Make cross shaped incisions about 1.25 cm long and 0.6 cm deep over the bite with a clean sharp knife or razor and then pour hot water on the wound and forcibly express the blood and fluid as much as possible. Loosen the cord and apply *Araq Ajeeb* on the affected site. Apply *Marham Sumoom*, give *Tiryaaq Sumoom*. Give the patient as much garlic and onion as he can eat. Refer the case to the PHC.

15.19 Insect sting

The sting of the insect should be removed first. Apply *Araq Ajeeb* on the affected part or apply *Marham Sumoom*. Give *Tiryaaq Sumoom*.

15.20 Scorpion sting

Apply *Araq Ajeeb* and give *Tiryaaq Sumoom*.

15.21 Lice

Wash the hair with warm water and soap or shampoo twice a week. Apply *Sufoof Qummal*. Repeat after one week if required.

15.22 Bleeding

Bleeding comes from wounds and cuts and sometimes from the nose due to injury.

Clean the cuts or wounds with water and clean cotton. Apply *Qutoor Ramad* and bandage tightly. If the bleeding is from the nose ask the patient to lie down on a bed without a pillow. Put a few drops of *Qutoor Ramad* in the nose and plug the nose with cotton wool.

15.23 Eye trouble

Sore eyes are caused by infection of the eye, irritation, or injury by foreign bodies. The eyes become red and the patient complains of a burning sensation and pain with watery discharge.

Clean the eyes with clean cold water. Drop *Qutoor Ramad* in the eye. Keep the patient away from bright light. Refer the case to the PHC if there is no improvement within 24 hours. In the case of eye injury refer the patient to the PHC immediately.

15.24 Earache

Earache is usually due to infection or cold. It can also be due to a foreign body lodging in the ear.

Drop one drop of *Araq Ajeeb* with 2 drops of *Roghan Kamila*. If there is any discharge from the ear clean the ear with a cotton swab before dropping ear drops.

15.25 Toothache

Ask the patient to gargle with salt water. Apply *Araq Ajeeb* one drop with a swab on the aching tooth. Advise the patient to brush the teeth after each meal.

15.26 Sprain

This is the result of unnatural stretching or twisting of a muscle or ligament. Swelling is always present with pain on moving the affected part. Apply alternate cold and hot compresses. Give rest to the affected part. Apply *Roghan Surkh* on the affected part.

15.27 Wounds

Wash the wound with water in which neem leaves are boiled. Apply *Marham Ral* and bandage.

APPENDIX 15.1

Guide for the Use and Administration of Unani Drugs

S.No.	Uses	Drugs	Dosage			Remarks
			Infants	Children	Adults	
1.	Fever	Qurs Mubarak	1 tablet 3 times a day	2 tablets 3 times a day	4 tablets 3 times a day	With water.
		Qurs Shifa	—	½ tablet twice a day	1 tablet twice a day	— do —
2.	Sunstroke	Araq Gulab	For local application			
3.	Cold	Qurs Nazla	½ tablet 3 times a day	1 tablet 3 times a day	2 tablets 3 times a day	With lukewarm water or tea.
		Araq Ajeeb	—	For inhalation only		
4.	Cough	Qurs Surfa	½ tablet 3 times a day dissolved in luke warm water	1 tablet 3 times a day	2 tablets 3 times a day	To be sucked.
5.	Vomiting	Qurs Zahar Mohra	½ tablet 3 times a day	1 tablet 3 times a day	2 tablets 3 times a day	With water.
		Araq Ajeeb	—	2 drops mixed in a little water twice a day	5 drops mixed in a little water twice a day	
6.	Diarrhoea	Qurs Zahar Mohra	½ tablet 3 times a day	1 tablet 3 times a day	2 tablets 3 times a day	With water.
		Qurs Haiza	— do —	— do —	— do —	— do —
7.	Indigestion	Sufoof Chutki	½ g. powder 2 times a day	½ g. powder 2 times a day	1 g. powder 2 times a day	With water.
		Qurs Zahar Mohra	½ tablet 3 times a day	1 tablet 3 times a day	2 tablets 3 times a day	— do —
		Araq Ajeeb	—	2 drops 2 times a day	5 drops 2 times a day	— do —
		Qurs Haiza	½ tablet 3 times a day	1 tablet 3 times a day	2 tablets 3 times a day	— do —
8.	Constipation	Qurs Tinkar	—	—	2 tablets at bed time	— do — (lukewarm)
		Habb. Usara Rewand	½ tablet 2 times a day	1 pill twice a day	—	— do —
9.	Joint pain	Qurs Hudar	—	1 tablet at bed time	2 tablets at bed time	With water.
		Roghan Surkh	For local application			

Contd.

Appendix 15.1—Contd.

S.No.	Uses	Drugs	Dosage			Remarks
			Infants	Children	Adults	
10.	Backache	Qurs Hudar	—	1 tablet at bed time	2 tablets at bed time	— do —
		Roghan Surkh	For local application			
11.	Headache	Qurs Shifa	—	$\frac{1}{2}$ tablet 2 times a day	1 tablet 2 times a day	— do —
		Qurs Siras	—	1 tablet 2 times a day	2 tablets 3 times a day	With milk or cream.
		Araq Ajeeb	Apply on the forehead			
12.	Scabies	Marham Kharish	For local application			
		Roghan Kamila	For local application			
13.	Ringworm	Marham Kharish	For local application			
		Roghan Kamila	For local application			
14.	Boils and abscesses	Marham Kharish	For local application			
		Marham Ral	For local application			
15.	Burns and scalds	Marham Ral	For local application			
16.	Cuts and scratches	Marham Ral	For local application			
		Roghan Kamila	For local application			
17.	Dog bite	Tiryaq Sumoom	—	$\frac{1}{2}$ g. powder 3 times a day	1 g. powder 3 times a day	with honey
		Marham Sumoom	For local application			
		Araq Ajeeb	For local application			
18.	Insect sting	Araq Ajeeb	For local application			
		Marham Sumoom	For local application			
		Tiryaq Sumoom	—	$\frac{1}{2}$ g. powder 3 times a day	1 g. powder 3 times a day	— do —
19.	Scorpion sting	Araq Ajeeb	For local application			
		Marham Sumoom	For local application			
		Tiryaq Sumoom	—	$\frac{1}{2}$ g. powder 3 times a day	1 g. powder 3 times a day	— do —

Contd.

Appendix 15.1—Contd.

S.No.	Uses	Drugs	Dosage			Remarks
			Infants	Children	Adults	
20.	Lice	Sufoof Qummal	Mix with Roghan Nariyal (coconut oil) and apply on the hair at night. Wash the hair in the morning. Eyes should be protected from this medicine.			
21.	Bleeding	Qutoor Ramad	For local application			
22.	Eye trouble	Qutoor Ramad	Instil 2 drops in the eye 3 to 4 times a day.			
23.	Earache	Araq Ajeeb & Roghan Kamila	Mix one drop of Araq Ajeeb in 2 drops of Roghan Kamila and instil in the ear 3 to 4 times a day.			
24.	Toothache	Araq Ajeeb	For local application			
25.	Sprains	Roghan Surkh	For local application			
26.	Wounds	Marham Ral	For local application			
27.	Ulcer	Marham Ral	For local application			

Siddha

16.1 Personal hygiene and health

The following factors are considered essential for maintaining positive health:

1. Diet
2. Sleep
3. Mental health
4. Seasonal conduct
5. Social conduct.

16.1.1 Diet

There is a saying in Thirukkural, "Attradarindhu Kadaippidithu Maralla Thuikka Thuvarap Pasithu"—A person should take his food when the food taken earlier is digested; he should enjoy his food and eat only when he feels hungry.

Nourishing food should be taken in sufficient quantities. Normally, half of the stomach should be filled with solid material, one fourth with liquid, and the remaining part should be left unfilled. The food should be warm and easily digestible. Drinking water in between the food should be avoided and water should be taken after food. The place where food is taken and the utensils should be clean. The hands should be washed before eating. While taking food, one should observe silence and there should not be any cause for mental or bodily disturbance. The food should be properly cooked and should contain all the essential nourishment in proper combination. Foods like rice, wheat and other grains and green vegetables, fruits, milk, buttermilk, butter, ghee, eggs and mutton constitute the diet according to the custom and need.

16.1.2 Sleep

Sound and undisturbed sleep will promote health, strength and longevity. Irregular sleep may cause various diseases and mental and physical weakness. Six hours sleep may be sufficient for an adult and eight to ten hours for children. In case one cannot sleep in the night, one should sleep the next morning after a light meal.

Sleeping during the day should be avoided except in the case of children, old people and in summer.

16.1.3 Mental health

Happiness and sorrow cause the mind to be healthy or weak and the mind is an important factor for the general health of the body. The spiritual mode of living helps to acquire mental peace leading to physical well-being. In order to achieve physical and mental health, certain simple and basic principles should be adopted as a daily routine. These are mentioned below:

- (i) Rising early in the morning is considered a good habit.
- (ii) Regular evacuation of the bowels is necessary for health.
- (iii) The teeth and mouth should be cleaned with a green twig such as neem or with tooth powder prepared by burning paddy husk and grinding it to a soft powder with a little pepper and salt. The mouth should be rinsed with water.
- (iv) The body and head have to be massaged with oil to keep the skin healthy.
- (v) A morning walk and simple physical exercises are also useful to increase the body strength and to keep the mind healthy.

- (vi) Hair and nails should be kept clean and trimmed as often as is necessary.
- (vii) Bathing twice daily, in the morning and in the evening, refreshes the body.
- (viii) The dress should be clean and warm according to the season.
- (ix) The feet should be protected by footwear and the head from the sun, rain and fog.

16.1.4 Seasonal conduct

It is essential to observe certain precautions during specific seasons, viz., summer, rainy season, and winter.

Summer. Use dry, clean and light clothes after taking a bath in cold water. Foods like vegetables, milk, sugar, ghee, rice and wheat should be taken. Sour, pungent, fried and hot things should be avoided.

Rainy season. Use dry, clean and light warm clothes after taking a bath either in cold or warm water. Foods like milk, vegetables, sugar, ghee, rice and wheat should be taken. The food should be warm.

Winter. Use dry, clean and heavy warm clothes after taking a bath in warm water. The body should not be exposed to cold. Milk, sugar, vegetables, rice and wheat should be taken. The food should be warm.

Hot water can be used in all the seasons for bathing and drinking by persons suffering from diseases. They should avoid exposure to cold and taking extremely cold food and drink.

16.1.5 Social conduct

Good social conduct such as reverence to elders, self-control, cheerful disposition, hospitality, charity, affection to children and pet animals, also promotes mental rest and physical health. One should cover the mouth while yawning, sneezing or laughing.

Proper observance of the above principles will improve and ensure physical and mental health.

16.2 Siddha treatment for common ailments

16.2.1 Fever

Fever is a symptom which occurs with certain diseases. Different types of signs and symptoms accompanying fever are as follows:

1. Fever with running nose and cough. This is the commonest type of fever which occurs due to exposure to cold or infections from persons affected by cold. There may be headache, bodyache, cough, running nose and rise of temperature.

The patient should be advised to take hot water, milk, coffee or tea, warm and liquid food and should wear clean and warm clothing to protect the body from chill. Gargling 2 or 3 times a day with warm water and salt should also be advised. *Sivanar Amirtham* or *Vasantha Kusumakaram* with honey may be given three times a day. Decoction of *Nilavembu* is also effective. The ingredients are: *Nilavembu* (Chiratta), *Vettiver* (khus-khus black), *Vilamitchanver* (khus-khus white root), *Chandhanam* (sandal-wood), *Peipudal* (wild snake gourd), *Korakizhangu* (nut grass), *Parpadagam* (bitter hair flower), *Chukku* (dried ginger), *Milagu* (black pepper) and *Thippili* (long pepper); take equal parts of the powder of the above drugs, add 4 cups of water and boil to $\frac{1}{4}$ of the quantity; this is taken twice a day before food.

2. Continuous fever. In case of continuous fever for more than three days, the patient should be referred to the Primary Health Centre for further treatment. Meanwhile, the patient should be instructed not to take anything except liquid and warm diet. Boiled and cooled water with *Kothamalli* can be advised for thirst. *Thulasi* decoction could also be given to the patient: put *Thulasi*, black pepper, *Arugampul* (hariali couch grass) in two cups of hot water, and cover it for a few minutes, filter it and add some honey.

3. Fever with shivering. If there is fever with shivering and sweating daily or on alternate days *Sivanar Amirtham* or *Vasantha Kusumakaram* with honey should be given twice a day.

4. Fever with diarrhoea. In case of fever accompanied by diarrhoea, *Padika Linga Chenduram* with honey may be given twice a day.

5. Fever with sun stroke. This occurs due to direct exposure to the hot sun. Complete suppression of urination or passing urine in drops, high temperature and no perspiration may be noticed.

The patient should be advised to take liquids like fruit juice. The fever should be brought down by applying ice to the forehead. Refer the patient to the Subcentre if the fever does not come down within 24 to 48 hours.

16.2.2 Cough

Cough is a symptom of diseases of the respiratory system. There may be dry cough, or with phlegm. Give *Thalisathi vadakam* for chewing, and *Pavala Parpam* with ghee or butter 3 times a day. *Sivanar Amirtham* with honey 3 times a day may be given. Gargling with warm water and salt should be advised. The patient should avoid ice and cold drinks. Warm food and drinks should be advised. If the cough persists for a week, refer the patient to the Primary Health Centre.

16.2.3 Vomiting

Vomiting is generally caused by over eating, taking unwholesome food, or irritation of the stomach. It may also occur as a symptom in a few other diseases. *Sathi Sampeera Kuzhambu* and *Elathi Choornam* with honey may be given. Milk or boiled water may be advised. To prevent dehydration and weakness, plenty of fluids (water with glucose or sugar) may be given often in small quantities. If the vomiting persists, refer the patient to the Primary Health Centre.

16.2.4 Pain in the abdomen

The pain is noticed one or two hours after food or immediately after taking food. There may also be continuous pain due to other reasons such as indigestion, diarrhoea, etc.

For indigestion, *Pancha Deepagni Choornam* may be given. Light and easily digestible food is advised. Alcohol and oils should be avoided.

16.2.5 Diarrhoea

Passing loose motions several times a day and loss of appetite are noticed. For diarrhoea, give *Chundai Vattiral Churnam* with water 3 times a day or *Padiga Linga Chenduram* with ghee or butter 3 times a day.

Pavala Parpam or *Padiga Linga Chenduram* with ghee, butter or honey 3 times a day may be given. For cholera, *Kadikara Chenduram* with water twice a day may be given. *Thalisathivadagam* may be given for chewing. Light food may be advised.

16.2.6 Constipation

Difficulty in passing stools is felt. A feeling of fullness in the abdomen, loss of appetite, uneasiness and headache may be noticed.

The patient should be advised to take water, milk, ghee, fruits and green vegetables.

Nilavagai Choornam at bed time or *Megamatha Mathirai* in the morning may be given.

16.2.7 Joint pains

In children: Fever, pain and swelling of the joints are noticed. In children below the age of 12 years, this condition is usually due to rheumatic fever. The temperature may be controlled as in general fever. *Sivanar Amirtham* may also be given twice a day. Complete bed rest may be advised. Refer the case to the Primary Health Centre for proper care and treatment. In adults: The patient complains of joint pains, swelling and difficulty in movements.

Sivanar Amirtham with honey twice a day may be given. *Mayana Thailam* is applied on the affected parts of the body.

16.2.8 Worms

Worms can be noticed while passing stools. There may be pain in the stomach and loss of appetite in the morning. *Kadukkai Kudineer* in the morning and *Murukkan Vithu Mathirai* with dried ginger decoction may be given at bed time. Advise the patient not to take any food in the morning hours except liquids like gruel. If the purging is more, advise the patient to take buttermilk and rice.

16.2.9 Skin diseases

There are several types of skin infections.

Scabies: Itching with or without discharge and with or without rashes on the skin are the main symptoms.

The patient should be kept away from others. He should take a bath in running water or warm water. The clothes and towel used by the patient should be kept separately. *Irunelli Karpam* with honey twice a day is advised. *Padai Sankaran* for external use is advised.

16.2.10 Burns and scalds

Apply *Chunnambu Thelivuneer* and coconut oil made into an emulsion on the affected parts. *Silasathu Parpam* with ghee may be advised 3 times a day. Refer the patient to the Primary Health Centre for further treatment.

16.2.11 Cuts and scratches

The affected parts are washed with warm water and *Pachai Ennai* is applied on the parts. Refer the patient to the Primary Health Centre if it does not heal within 3 or 4 days.

16.2.12 Toothache

Toothache is a common complaint and is due to proper attention not being paid to keeping the teeth clean after meals by regular brushing. *Chukku Thailam* or *Kirambu Thailam* soaked in a small cotton plug may be put on the affected tooth.

16.2.13 Earache

The ear is to be cleaned with a cotton swab and a few drops of *Pachai Ennai* instilled.

If there is a foreign body in the ear or disturbance in hearing, or if there is no relief from pain, the patient should be referred to the Primary Health Centre.

16.2.14 Dog bite

The bitten area is cleaned with warm water and *Pachai Ennai* is applied.

Give *Sivanar Amirtham* with honey 3 times a day. If the dog becomes rabid it should be killed and the patient should be referred to the Primary Health Centre. If the dog stays alive there is no need to refer the patient to the Primary Health Centre. If the dog cannot be identified or traced refer the patient to the Primary Health Centre for treatment.

16.2.15 Snake bite

A cord is tied tightly around the limb just above the bite. Using a clean razor blade or knife make a one cm deep cut. Allow the bleeding to continue for some time. Clean the wound with warm water. Give internally *Vazhai Mattai Charu* about 200 ml.

16.2.16 Sore eyes

Sore eyes are caused by infection of the eyes or may be due to foreign bodies. The eyes are cleaned with warm water. *Padiga Panneer* is dropped in the eyes. Refer the patient to the Primary Health Centre if there is an eye injury or a foreign body in the eye, or if there is no improvement in two or three days.

16.2.17 Boils and abscesses

Amirtha Vennai is applied on the surface and when it opens, pus and blood are drained and it is dressed with *Pachai Ennai*. Give *Silasathu Parpam* with ghee twice a day.

16.2.18 Backache

Backache is a symptom of several diseases. *Sivanar Amirtham* with honey twice a day is given. *Mayana Thailam* is applied externally.

16.2.19 Headache

This is also a symptom in many diseases.

Sivanar Amirtham with honey twice a day is given. A paste of *Neerkovai Mathirai* with milk is applied on the forehead.

16.2.20 Indigestion

A feeling of discomfort after food, belching, nausea, sometimes associated with diarrhoea or fever, are noticed.

Panchadeepagni Choornam with water twice a day is given. *Sundai Vattral Choornam* with buttermilk 3 times a day may be given and in case of diarrhoea and fever *Padiga Linga Chenduram* may be given with honey 2 to 3 times a day. Hot water fomentation on the abdomen may also be advised.

16.2.21 Wounds

The wounds are cleaned with soap and water and dressed with *Pachai Ennai*.

16.2.22 Sprains

Acute pain in the muscles and difficulty in the movements of the affected parts may be noticed.

Sivanar Amirtham with honey twice a day may be given. *Mayana Thailam* is applied externally on the affected parts. Do not massage.

16.2.23 Difficulty in breathing

This is a symptom in asthma and in diseases of the respiratory system.

Sivanar Amirtham with honey 3 times a day may be given.

Note: See Appendix 16.1: Guide for the Use and Administration of Siddha Drugs for dosage.

APPENDIX 16.1

Guide for the Use and Administration of Siddha Drugs**A. For internal use**

S.No.	Drugs	Uses	Dosage			Remarks
			Infants	Children	Adults	
1.	Sivanar Amirtham	All types of fevers and cold, cough, backache, dog bite, (excluding rabies), insect bite, headache	5 mg twice a day	50-150 mg 2 to 3 times a day	300-500 mg 2 to 3 times a day	With honey; with breast milk and honey for infants.
2.	Vasantha Kusumakaram	Cough with phlegm, thirst, sneezing, belching, fevers	$\frac{1}{4}$ to $\frac{1}{2}$ pill 3 times a day	1 pill three times a day	2 pills 3 times a day	With honey; with breast milk for infants.
3.	Murukkan Vithu Mathirai	Intestinal worms	—	$\frac{1}{4}$ to 1 pill 3 times a day	1 to 2 pills 3 times a day	With chukku kudineer (dried ginger decoction).
4.	Thalcesadi Vatakam	All digestive diseases, diarrhoea & dysentery, cough	—	$\frac{1}{4}$ pill 3 times a day	1 pill 3 times a day	To be chewed.
5.	Nilavagai Chooram	Constipation	—	10 to 20 g	2 to 20 g	At bed time.
6.	Meganatha Mathirai	Constipation	—	1 to 2 pills	2 to 4 pills	In the morning with warm water.
7.	Pancha Deepakkini Chooram	Indigestion, pain in the abdomen, gastric trouble	—	10 to 15 gms 3 times a day	15 to 20 gms 3 times a day	With honey, or ghee or warm water.
8.	Elathi Chooram	Cough, vomiting, pitha diseases	—	10 to 20 gms 3 times a day	15 to 30 gms 3 times a day	With honey, or warm water.
9.	Adathodai Manappagu	Cough	$\frac{1}{2}$ teaspoon 3 times a day	1 to 2 teaspoons 3 times a day	1 to 3 teaspoons 3 times a day	
10.	Sathi Sambeera Kuzhambu	Vomiting, nausea	—	5 to 10 mg	10-15 mg	Apply on the tongue with water.
11.	Sundaivatral Chooram	Diarrhoea	—	100-200 mg 3 times a day	300-500 mg 3 times a day	
12.	Irunelli Karpam	Skin diseases	—	100-200 mg 3 times a day	300-500 mg twice a day	With water or honey.
13.	Kadikkara chenduram	Diarrhoea, cholera	—	1 grain 3 times a day	2 grains 3 times a day	With honey and ginger juice and tulsi juice.
14.	Padiga linga chenduram	Indigestion, diarrhoea, dysentery	2 grains 3 times a day	5 grains 3 times a day	5 to 10 grains 3 times a day	With ghee, or butter, or honey

Contd.

Appendix 16.1—Contd.

S.No.	Drugs	Uses	Dosage			Remarks
			Infants	Children	Adults	
15.	Pavala Parpam	Cough and dry cough, dysentery, diarrhoea	$\frac{1}{2}$ to 1 grain 3 times a day	1 to 2 grains 3 times a day	3 grains 3 times a day	With ghee, or butter, or milk, or water.
16.	Silasathu Parpam	Bronchitis and other respiratory disorders, urinary trouble and uterine disorders		3 to 7 grains 3 times a day	5 to 10 grains 3 times a day	With ghee or butter.

B. For external use

S.No.	Drugs	Uses	Remarks
17.	Neerkovani Mathirai	Headache, cough, cold	Apply on the forehead.
18.	Amirtha Vennai	Boils	Apply on the affected part.
19.	Mayana Thailam	Sprains and swellings in the joints	Massage on affected part.
20.	Pachai Ennai	Wounds Earache	Apply on wound. As Ear drops.
21.	Padika Panneer	Sore eyes	As Eye drops.
22.	Padai Sankaran	Ringworm	Apply on the affected part.
23.	Chunnambu Thelineer with coconut oil	Burns and scalds	Apply on the affected part.
24.	Pachai-karppooru Mathirai	Scorpion sting	Apply on the affected part.
25.	Kilinjai Mezhugu	Insect bite (known and unknown)	Apply on the affected part.
26.	Chukku Thailam	Toothache	Apply on gums.
27.	Kirambu Thailam	Toothache	Apply on gums.

Homoeopathy

17.1 Introduction

Homoeopathy is a system of treatment by which diseases are cured by drugs which produce effects on the body similar to the symptoms of diseases.

Minute doses of homoeopathic medicines mobilize the defence mechanisms of the body against the offending disease processes. The results are rapid, gentle and permanent restoration of health. Homoeopathic medicines are best suited to children and weak, elderly individuals. With the aid of homoeopathic medicines, many cases of common ailments can be managed successfully and serious cases greatly helped before the arrival of proper professional help. Homoeopathic treatment does not conflict with surgery, physical therapy or other non-medical measures.

17.2 Preparation, handling and storage of homoeopathic medicines

The "Homoeopathic-kit" contains all the medicines which one may need to treat common ailments. While giving the medicine to a patient, the *name* and *potency* of the drug should be noted carefully. Extreme care is needed in handling and storage of homoeopathic medicines. They should always be put back in the kit-box which should be kept closed and in a cool, dry and preferably in a shaded place. No other strong smelling things like camphor, menthol, essences, scents etc. should be kept nearby as these will destroy the action of homoeopathic medicines and make them inert. If carefully stored and handled, the homoeopathic medicines will not deteriorate and will keep their power for many years.

17.3 Administration of medicines

The medicines may either be administered dry, by placing them upon the tongue, or dissolved in water.

In most cases, 10 to 15 globules should be placed dry on the tongue. For children 7 to 10 globules and for infants 3 to 5 globules will be sufficient for a dose. If the tongue is dry, add a few drops of drinking water. Even new-born babies are able to swallow this. In the case of Combination Tablets, give 4 tablets with a small amount of warm drinking water to adults. In children and infants, dissolve 4 tablets in half a cup of warm, drinking water and give one teaspoon of this. Avoid undue handling and touching the medicine. The drug should be taken from the bottle on to a piece of clean paper.

Where repeated doses of the medicine at short intervals are required, the appropriate remedy should be administered in solution in water. For this purpose take a clean tea cup and rinse it with water. Fill it half full of drinking water, put 10 to 15 globules of medicine into the water, mix it thoroughly by stirring with a clean spoon. Keep the tumbler containing the medicine well covered with a clean saucer in a cool place, free of odours of any kind. When thus prepared, a dessertspoonful to adults, or a teaspoonful to children and infants may be given at a time.

The more active or virulent the disease, the more frequently must the remedy be repeated. In acute conditions like severe pain, troublesome cough, diarrhoea or vomiting, the medicine may have to be repeated as often as every 10 to 15 minutes until the patient gets relief from the pain, or the vomiting ceases, or the diarrhoea stops, or the cough gets easier and the patient goes to sleep. With relief of symptoms, the patient will have a sense of well being. These reactions will show that the medicine is doing its work.

17.4 Regimen during homoeopathic treatment

The patient should partake of light, digestible and nourishing food. In fevers only the lightest

and simplest kinds of foods are proper. Both mental and physical rest are most essential.

While taking homoeopathic remedies the patient should be careful to refrain from taking other medicines. Certain articles of diet are forbidden such as strong coffee or excessive spices. The patient should also abstain from tobacco and alcoholic drinks.

17.5 Referral & records

Refer your cases as necessary to the Health Worker, Subcentre or Primary Health Centre in good time according to the instructions given under each ailment. Whenever in doubt about the disease or its treatment, contact the Health Worker attached to your Subcentre or Primary Health Centre.

Keep a record of the treatment given to each patient. Refer cases to the Health Worker or to the Subcentre or Primary Health Centre as necessary with their records.

17.6 Homoeopathic treatment for common ailments

17.6.1 Fever

Fever is a common condition and is generally accompanied by other signs and symptoms such as headache, bodyache, shivering, running of the nose, sore throat, nausea, vomiting, diarrhoea, or skin rash. Proceed as follows:

1. Ask the patient to remain in bed.
2. Tell the patient to drink plenty of fluids.
3. At the onset of fever give *Aconite 6X* and *Combination No. I tablets* alternately every one hour; if better, two hourly.
4. If the fever is accompanied by sore throat, earache, cough, bodyache, or running of the nose give *Belladonna 6* and *Merc bin iodide 6* alternately every two hours.
5. If the fever does not subside, give *Baptisia 3X*, two hourly till such time that he is assisted by the Subcentre or Primary Health Centre.
6. Refer to the Subcentre if:
 - (i) The fever does not come down within two days
 - (ii) The fever is accompanied by stiff neck, convulsions, unconsciousness or vomiting.

17.6.2 Headache

Like fever, headache can also be accompanied by other signs and symptoms such as fever, rash, earache, running of the nose, sore throat, or vomiting. Proceed as follows:

1. Give *Mellilotus 30* and *Combination No. II tablets* alternately every two hours for two days.
2. Treat the other symptoms accompanying the headache as follows:

<p><i>Headache accompanied by</i></p> <p>(i) Fever</p> <p>(ii) Sore throat</p> <p>(iii) Cold and Cough</p> <p>(iv) Earache</p>	<p><i>Aconite 6X</i> and <i>Combination No. II tablets</i> alternately every two hours.</p> <p><i>Belladonna 6</i> and <i>Merc bin iodide 6</i> alternately every two hours.</p> <p><i>Bryonia Alba 30</i> and <i>Combination No. I tablets</i> alternately every two hours.</p> <p><i>Belladonna 30</i> and <i>Combination No. II tablets</i> alternately every two hours.</p>
--	---

Refer the patient to the Subcentre if:

- (i) The headache is accompanied by stiff neck
- (ii) The patient is pregnant
- (iii) The headache is accompanied by fever and there is no relief even after two days.

17.6.3 Backache

Proceed as follows:

1. Bed rest
2. Treatment:

(i) If backache is due to injury	<i>Arnica 30</i> every two hours.
(ii) If backache is accompanied by joint pain and the pain is felt more with the least movement	<i>Bryonia 30</i> and <i>Combination No. III</i> tablets alternately every two hours.
(iii) If the backache is accompanied by joint pain and if the pain is relieved by movement	<i>Rhustox 30</i> and <i>Combination No. III</i> tablets alternately every two hours.

3. Refer the patient to the Subcentre if the backache persists for more than three days or if there is any deformity.

17.6.4 Joint pains

Proceed as follows:

1. Bed rest
2. Apply heat to the joint by means of a hot water bottle or hot sand or by wrapping the joint with a cloth soaked in hot water and wrung out.
3. Treatment:

(i) If joint pain is more on the least movement	<i>Bryonia 30</i> and <i>Combination No. III</i> tablets alternately every two hours.
(ii) If joint pain is better by movement	<i>Rhustox 30</i> and <i>Combination No. III</i> tablets alternately every two hours.
(iii) If joint pain is accompanied with fever and the joint is red, hot, swollen and painful to touch	<i>Belladonna 30</i> every two hours.

4. Refer the patient to the Subcentre
 - (i) If the patient is a child with pain in several joints and fever
 - (ii) If there is no improvement after 3 days of treatment.

17.6.5 Diarrhoea

Proceed as follows:

1. Give plenty of fluids to drink
2. Give soft diet like banana, buttermilk, arrowroot conjee, and rice gruel.
3. If there are signs of dehydration, i.e., sunken eyes, dry mouth, or wrinkled skin, give rehydration mixture, or follow the instructions given in Chapter 11, Section 11.1.5.
4. Give *China 6* and *Cynodon Dactylon 6X* alternately two hourly.
5. Give *Chamomilla 30* every two hours in children having diarrhoea during dentition when the child is cranky and irritable.
6. Treatment:

<i>If the stools are:</i>	
(i) Watery, profuse, painless, offensive	<i>Podophyllum 30</i> and <i>Combination No. IV</i> alternately every two hours.
(ii) Mixed with blood and mucus	<i>Merc Sol 30</i> and <i>Combination No. IV</i> alternately every two hours.
(iii) Accompanied by nausea, vomiting or dehydration	<i>Arsenic Album 30</i> and <i>Ipecac 30</i> alternately every two hours.

7. Refer the patient to the Subcentre if:
- (i) There are signs of dehydration
 - (ii) There is no improvement within two days.

17.6.6 Cold

Proceed as follows:

1. Give *Arsenic Album 6* and *Combination No. 1* tablets every two hours for four days.
2. Refer the patient to the Subcentre if the cold does not subside after 4 days of treatment.

17.6.7 Cough

Proceed as follows:

1. Treatment:

(i) Dry cough accompanied by fever	<i>Belladonna 30</i> and <i>Merc Sol 30</i> alternately every two hours for 3 days.
(ii) Loose cough	<i>Arsenic Album 6</i> and <i>Ipecac 30</i> alternately every two hours for 3 days.

2. Refer the patient to the Subcentre:
 - (i) If the cough does not subside
 - (ii) If the cough is accompanied by fever and chest pain.

17.6.8 Vomiting

Vomiting may occur alone or it may be accompanied by pain in the abdomen, diarrhoea or fever. In women it may occur during pregnancy.

Proceed as follows:

1. Give a milk diet
2. If there are signs of dehydration, give rehydration mixture or as suggested in Chapter 11, Section 11.1.5.
3. Give *Ipecac 30* and *Arsenic Album 30* alternately every one hour and if better, every 2 hours.
4. Refer the patient to the Subcentre:
 - (i) If the vomit contains blood
 - (ii) If the patient is dehydrated
 - (iii) If the patient is unable to retain anything
 - (iv) If there is no improvement within two days.

17.6.9 Pain in the abdomen

Pain in the abdomen can also occur with other signs and symptoms like nausea, vomiting, diarrhoea or constipation.

Proceed as follows:

1. Advise milk and a soft diet.
2. Treatment:

<i>Pain in abdomen associated with</i>	
(i) No symptoms	<i>Colocynth 30</i> and <i>Combination No. V</i> tablets alternately every two hours.
(ii) Diarrhoea	<i>China 6</i> and <i>Cynodon Dactylon 6</i> alternately every two hours.
(iii) Constipation	<i>Nux Vomica 30</i> and <i>Combination No. V</i> alternately every two hours.
(iv) Nausea and vomiting	<i>Ipecac 30</i> and <i>Arsenic Album 30</i> alternately every two hours.
(v) Passing worms	<i>Cina 30</i> every two hours.
(vi) Fever	<i>Belladonna 30</i> every two hours.

3. Refer to the Subcentre:

- (i) If the pain does not subside within 24 hours
- (ii) If there are signs of shock
- (iii) If the patient is pregnant.

17.6.10 Indigestion

Proceed as follows:

1. Treatment:

<p>Indigestion</p> <ul style="list-style-type: none"> (i) With heaviness and belching (ii) Due to rich, greasy food (iii) Due to spicy food (iv) With nausea or vomiting (v) With diarrhoea (vi) In children during dentition 	<p><i>Carbo Veg 30</i> and <i>Combination No. XII</i> alternately every two hours.</p> <p><i>Pulsatilla 30</i> and <i>Combination No. XII Tablets</i> alternately every two hours.</p> <p><i>Nux Vomica 30</i> every two hours.</p> <p><i>Ipecac 30</i> and <i>Arsenic Album 30</i>.</p> <p><i>China 6</i> and <i>Cynodon Dactylon 6 X</i> alternately every two hours.</p> <p><i>Chamomilla 30</i> and <i>Combination No. VI</i> alternately every two hours.</p>
--	--

2. Refer the patient to the Subcentre if there is no improvement within two days.

17.6.11 Constipation

Constipation may also be accompanied by pain in the abdomen, nausea and vomiting.

Proceed as follows:

1. Advise the patient to drink plenty of water
2. Advise the patient to eat plenty of fresh fruits and green leafy vegetables.
3. Treatment:

<p>Constipation</p> <ul style="list-style-type: none"> (i) Of long standing (ii) Of recent origin 	<ul style="list-style-type: none"> (a) <i>Sulphur 30</i> in the morning and <i>Nux Vomica 30</i> in the evening for seven days. (b) <i>Combination No. VII</i> thrice a day. <p><i>Cascara Sagrada Q</i>, 4 to 6 drops in half a cup of water, one teaspoon every three hours for two days.</p>
--	---

4. Refer the patient to the Subcentre if the patient is vomiting and has severe pain in the abdomen accompanied by fever.

17.6.12 Earache

Earache may be accompanied by running of the nose, sore throat, discharge from the ear, dizziness, disturbances of hearing, or fever.

Proceed as follows:

1. Treatment:

<ul style="list-style-type: none"> (i) With fever (ii) With catarrh, sore throat, but without fever 	<p><i>Belladonna 30</i> and <i>Merc Sol 30</i> every hour; if severe pain then half hourly.</p> <p><i>Merc Sol 30</i> and <i>Combination No. VIII tablets</i> alternately every two hours.</p>
---	--

2. Refer the patient to the Subcentre:
 - (i) If the pain does not subside within 24 hours
 - (ii) If there is a foreign body in the ear
 - (iii) If the patient has dizziness or disturbances of hearing
 - (iv) If the fever does not subside and pain is more severe.

17.6.13 Sore eyes

Treat the patient as follows:

1. Clean the eyes with boiled, cooled water and cotton wool. Use separate cotton wool for each eye. Clean the eye from the inner to the outer end.
2. Drop *Euphrasia eye drops* inside the lower eyelid. Repeat three times a day. Or use eye drops as in Chapter 11, Section 11.1.11.
3. Give *Belladonna 30* and *Euphrasia 30* alternately every two hours.
4. Keep the patient away from bright lights and dust.
5. Refer the patient to the Subcentre:
 - (i) If there is an eye injury or a foreign body in the eye
 - (ii) If there is no improvement within 24 hours after the treatment
 - (iii) If the child with sore eyes has measles.

17.6.14 Toothache

Toothache may be accompanied by fever, swelling and redness of the gums, or by decay of the tooth.

Proceed as follows:

1. Add two drops of *Kreosote Q* in half a cup of water. Use this solution as a gargle. Repeat as necessary.
2. With cotton wool on a match stick apply *Kreosote Q* on the decayed tooth. Repeat as necessary.
3. Treatment:

<i>Toothache</i>	
(i) Without fever	<i>Staphysagria 200</i> and <i>Combination No. IX</i> alternately every two hours.
(ii) With fever and swelling of the gums or if painful to touch	<i>Belladonna 30</i> and <i>Merc Sol 30</i> alternately every two hours.

4. Refer the patient to the Subcentre:
 - (i) If the pain does not subside within two days
 - (ii) If the swelling increases or the fever does not subside.
 - (iii) For further treatment in cases of a decayed tooth, or swelling and redness of the gums.

17.6.15 Boils and Abscesses

These are skin infections seen most frequently in children who are not kept clean. If neglected, a boil develops into an abscess which contains pus. This has to be removed.

1. Treatment:

(i) In early stages of boils	<i>Belladonna 30</i> and <i>Merc Sol 30</i> alternately every two hours.
(ii) Very painful to touch	<i>Arnica 200</i> and <i>Combination No. XIII</i> tablets alternately every two hours.
(iii) If the abscess is formed and is painful	<i>Hepar Sulph 30</i> every two hours.

2. Refer the patient:

- (i) If there are red streaks running beyond the area of the boil and the part becomes painful to touch
- (ii) If the abscess is formed
- (iii) If there is no relief after two days of treatment.

17.6.16 Ulcers

Proceed as follows:

1. Clean the ulcer with **boiled, cooled water** and cotton wool.
2. Dry it with clean cotton wool.
3. Apply *Calendula ointment*.
4. Apply a clean dressing and keep in place with a bandage or adhesive plaster.
5. Give *Merc Sol 30* and *Combination No. X tablets* alternately every two hours.
6. If there is no relief, change the dressing as necessary, and give *Hepar Sulph 30* and *Combination No. X tablets* every two hours for one week.
7. Refer the patient to the Subcentre:
 - (i) If there is fever
 - (ii) If the patient has several ulcers and gets tired easily or eats and drinks water excessively.

17.6.17 Scabies

Proceed as follows:

1. Ask the patient to bathe the part with soap and water.
2. Clean the part with cotton wool.
3. Apply *Calendula ointment*. Repeat twice daily. (See also Chapter 11, Section 11.1.13 No. 1).
4. Ask the patient to put on clean clothes and change the clothes daily.
5. Ask the patient to boil the clothes and the bedding with soap and washing soda. Dry them in the sun.
6. Give *Merc Sol 6* and *Combination No. XI tablets* alternately every four hours for seven days.
7. Refer the patient to the Subcentre if there is no improvement.

17.6.18 Ringworm

Proceed as follows:

1. Bathe with water and soap.
2. Dry with cotton swabs.
3. Apply *Calendula ointment*. Repeat as necessary.
4. Give *Sepia 6* and *Combination No. XI tablets* alternately every three hours for seven days.
5. Refer the patient to the Subcentre if there is no improvement.

17.6.19 Burns and Scalds

Proceed as follows:

1. Cases where skin is intact or only partially destroyed

- (i) Wash with running water.
- (ii) Apply *Cantharis ointment*.
- (iii) Dress with gauze. Keep the gauze in position with a loose bandage and adhesive tape.
- (iv) Make the patient drink plenty of fluids.
- (v) Give *Cantharis 30* and *Urtica Urens 3X* alternately every hour.

2. Cases where skin is completely destroyed

The burnt area look raw, there is severe pain and the patient may go into shock. In such cases treat as follows:

- (i) Cover the affected area with a clean sheet or piece of cloth.
- (ii) Make the patient drink plenty of fluid.

- (iii) Give *Cantharis 30*, *Urtica Urens 3X* alternately every five minutes. Rush the patient to the Primary Health Centre.

17.6.20 Wounds

A wound may be a simple grazed skin, a skin cut by a knife or other sharp cutting instrument, a torn skin, or a punctured skin.

Proceed as follows:

- 1 **Simple grazed wound:** Wash the wound with clean water and cotton wool and dry with cotton wool. Apply *Calendula ointment*, dress the wound and bandage.
Give *Calendula 30* and *Arnica 200* alternately every two hours for two days.
2. **Cuts:**
 - (a) **If the cut is small**
 - (i) Stop the bleeding by using direct pressure.
 - (ii) Wash the wound with water, then dry it with cotton wool.
 - (iii) Apply *Calendula ointment*.
 - (iv) Dress the wound and bandage it.
 - (v) Give *Arnica 200* every two hours for two days.
 - (vi) Dress the wound daily as necessary.
 - (b) **If the cut is big**
 - (i) Stop the bleeding by direct pressure. If bleeding still continues, apply a tourniquet.
 - (ii) Give *Arnica 200* every 5 minutes.
 - (iii) Rush to the hospital.
3. **Torn skin:**
 - (a) **If the skin is torn**
 - (i) Remove as much dirt or foreign matter as possible.
 - (ii) Wash the wound with soap and water.
 - (iii) Dry with cotton wool.
 - (iv) Apply *Calendula ointment*.
 - (v) Dress the wound with a clean bandage.
 - (vi) Give *Arnica 200* every half an hour.
 - (b) **If the wound is gaping**
 - (i) Bring the edges together by using strips of adhesive tape.
 - (ii) Give *Arnica 200* and *Calendula 30* alternately every 20 minutes.
 - (iii) Rush the patient to the Primary Health Centre.
4. **Punctured wound:**
 - (a) **If the wound is small**
 - (i) Stop the bleeding by direct pressure.
 - (ii) Wash the wound with water.
 - (iii) Dress with *Calendula ointment*.
 - (iv) Give *Arnica 200* and *Ledum 30* alternately every 15 minutes.
 - (b) **If the wound is big and is bleeding profusely or the wound is in the abdomen or chest and is deep**
 - (i) Stop the bleeding by direct pressure or by applying a tourniquet.
 - (ii) Give *Arnica 200* every 10 minutes.
 - (iii) Rush the patient to the Primary Health Centre.

17.6.21 Sprains

Proceed as follows:

1. Give rest and support to the injured joint.

2. Apply a cold compress.
3. Apply *Arnica mother tincture*.
4. Bandage the joint firmly.
5. Give *Rhus tox 30* and *Arnica 200* alternately every two hours.
6. Rush the patient to the Primary Health Centre.

All cases of fractures and dislocations should immediately be referred to the Primary Health Centre (refer to Chapter 10).

17.6.22 Dog bite

Proceed as follows:

1. Clean the wound with soap and water.
2. Apply *Calendula Ointment*.
3. Dress the wound and apply a clean bandage.
4. Give *Ledum 6* and *Hydrophobinum 30* alternately every two hours.
5. Refer to the Primary Health Centre.

17.6.23 Scorpion sting and Insect sting

Proceed as follows:

1. Apply a cold compress.
2. Apply *Echinacea ointment* locally.
3. Give *Apis Mel 6* and *Ledum 6* alternately every two hours.
4. Refer the patient to the Health Worker or the Primary Health Centre:
 - (i) If the pain does not subside
 - (ii) If the patient is in shock
 - (iii) For further treatment.

17.6.24 Snake bite

Treat the patient as mentioned in Chapter 10, Section 10.1.4.

17.6.25 Lice

Proceed as follows:

1. Wash the hair with soap and warm water daily.
2. Give *Carbolic Acid 6* and *Psorinum 30* alternately every 4 hours for 7 days.
3. Repeat the treatment as necessary.

Note: See Appendix 17.1: Homoeopathic Medicines and Appendix 17.2: Guide for the Use and Administration of Homoeopathic Drugs for External Use.

APPENDIX 17.1

Homoeopathic Medicines to be Carried by Community Health Worker

For internal use:

<i>S.No.</i>	<i>Drugs</i>	<i>Potency</i>	<i>S.No.</i>	<i>Drugs</i>	<i>Potency</i>
1.	Aconite	6	17.	Hepar sulph	30
2.	Apis mel	6	18.	Hydrophobinum	30
3.	Arnica	200	19.	Ipecac	30
4.	Arsenic album	6, 30	20.	Ledum	6, 30
5.	Baptisia	3x	21.	Melilotus	30
6.	Belladonna	6, 30	22.	Merc bin iodide	30
7.	Bryonia alba	30	23.	Merc sol	6, 30
8.	Cantharis	30	24.	Nux vom	30
9.	Carbolic acid	6	25.	Podophyllum	30
10.	Carbo veg	30	26.	Psorinum	30
11.	Cascara sagrada	Q	27.	Pulsatilla	30
12.	Chamomilla	30	28.	Rhustox	30
13.	China	6	29.	Staphisagria	30
14.	Colocynth	30	30.	Sepia	6
15.	Cynodon dactylon	6x	31.	Sulphur	30
16.	Euphrasia	30	32.	Urtica urens	3x

Tissue remedies - combinations:

Numbers I to XIII

For external use:

<i>S.No.</i>	<i>Drugs</i>	<i>Use</i>
1.	Arnica	external
2.	Calendula	ointment
3.	Cantharis	ointment
4.	Echinacea	external
5.	Euphrasia	eye drops
6.	Kreosote	external

APPENDIX 17.2

Guide for the Use and Administration of Homoeopathic Drugs for External Use

<i>S.No.</i>	<i>Drug</i>	<i>Use</i>	<i>Method of application</i>
1.	Arnica external	Sprain	Rub gently on painful part. Cover with a piece of warm cloth and bandage the part firmly. Repeat treatment as necessary.
2.	Calendula ointment	1. Cut & scratches 2. Wounds 3. Ulcers	Clean wound with water. Dry with a cotton swab. Apply ointment on the wound. Cover with dressings and bandage. Repeat daily.
3.	Cantharis ointment	Burns and scalds	Clean wound with soap and water. Apply ointment on affected area and cover with clean dressing. Repeat daily.
4.	Echinacea external	1. Insect sting 2. Scorpion sting	Clean area with water. Dry with a cotton swab. Apply lotion on the wound.
5.	Euphrasia eye drops	Sore eyes	Clean eyes with boiled, cool water with cotton wool. Instil 2 drops of Euphrasia inside the lower eyelid. Repeat 4 times a day for 2 days.
6.	Kreosote external	Toothache	1. With cotton wool on a match stick apply kreosote external on the decayed tooth. 2. Add 2 drops to $\frac{1}{4}$ cup of water. Use this solution as a mouth wash. Repeat as necessary.

NOTES