



Reading Material for **ASHA**



BOOK NO- 2

Maternal & Child Health

asha



सत्यमेव जयते

Ministry of Health and
Family Welfare
Government of India

Reading Material for ASHA

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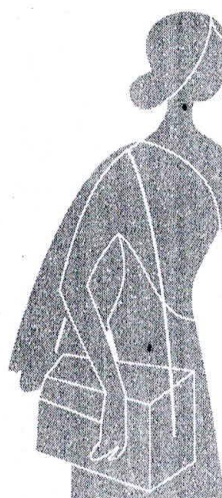
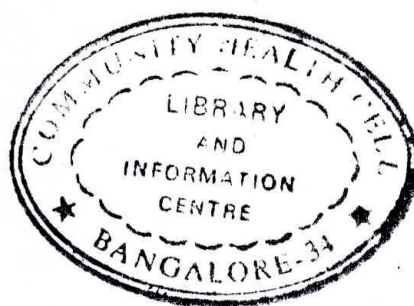
Maternal & Child Health

JULY, 2006



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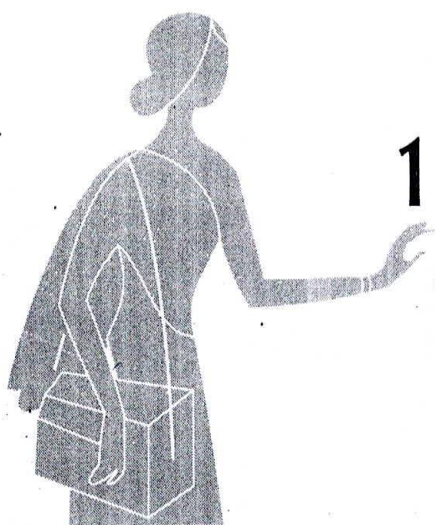
We are especially grateful to Shri Prasanna Hota, Secretary, Health & Family Welfare, Smt. S. Jalaja, Additional Secretary, Shri B.P. Sharma, Joint Secretary and Dr. D.C. Jain, Additional Director (Public Health, NICD) for their encouragement, constant support and guidance.

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July 2006

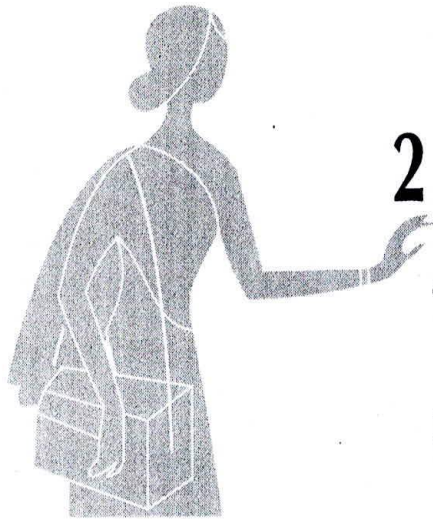


1

Introduction

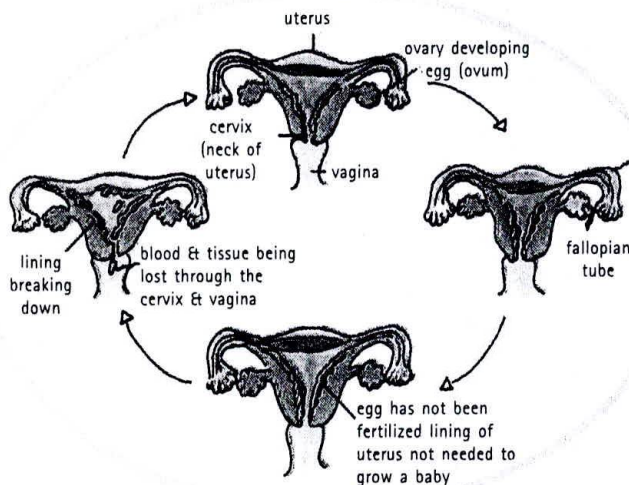
In Book No. 1, you have read about the tasks to be performed by you for improving access and utilization of services for health, nutrition, drinking water and sanitation. You have also read about details of registration of pregnant women, Janani Suraksha Yojana, breast feeding, infant nutrition, immunization and diarrhoea. In this Book you would be learning in greater detail about the menstrual cycle and fertility. You would also be learning about the care to be given to a pregnant woman during pregnancy, delivery and during post-natal period. In case a woman/family does not desire to continue a pregnancy, we should help them access services for early and safe abortion as per provisions of MTP Act. You will learn about how to help them access safe abortion services in this Book. You will also learn more details of newborn care, infant and young child nutrition, diarrhoea and also care and advice to be given in case of diarrhoea, fever and acute respiratory tract infection in infants and children.

You will learn about methods for preventing unwanted pregnancy, care for reproductive tract infections, prevention of HIV/AIDS and care to be given in case of malaria, TB or other such health problems as well as minor ailments in Books No. 3 and 4.



2

Menstruation and Fertility



Normal Menstrual Cycle

It is very important for women to know about how their body functions especially in relation to reproductive health because they are uniquely gifted with the capacity to give birth to a baby. You know that by the time a girl reaches the age of 10-13 years, a number of changes occur in her body preparing her to meet the complex child birth process. The normal menstrual cycle has the following characteristics:

- Duration of bleeding : three-five days
- Bleeding recurs after : 25-35 days
- Flow : without clots

In a regular 28-day menstrual cycle the mid 10 days (10th-20th day) of the cycle are fertile period during which pregnancy can occur, the first day being the day when the bleeding starts.

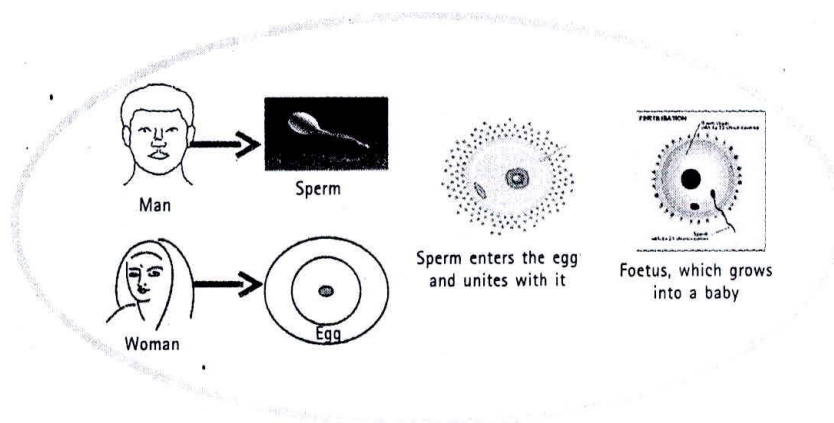
A woman can become pregnant from the age of 13-16 (when her periods begin), up to 45-55 years, (when they ultimately stops). When they stops it is called menopause. If the pattern of menstruation is different from that given above or there is bleeding again after menopause or the bleeding continues after 55 years of age a woman must consult a doctor.

A girl or woman should consult a doctor if:

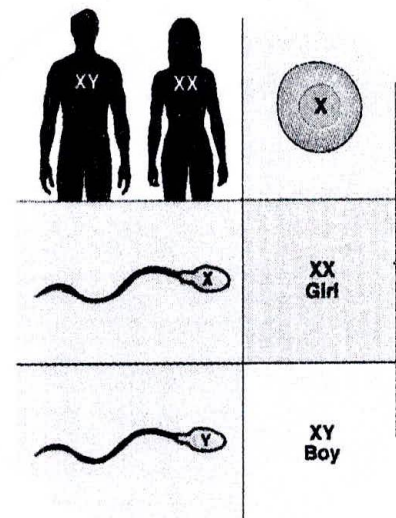
- bleeding lasts for more than six days
- there is too much bleeding especially clots
- there is bleeding in between the cycle
- there is pain during menstruation
- there is infrequent bleeding
- there is bleeding during sexual activity

How reproduction occurs

All females produce "egg" and males produce "sperms" which unite inside the womb of the woman and produce a foetus. This grows into a baby.



The sex of the baby is determined by sex chromosomes, through which we inherit our parents' traits. A woman's egg has X chromosome and a man's sperm has either X or Y chromosome (which we may call girl sperm or boy sperm respectively). At the time of fertilization, the X male chromosome of female egg meets either a girl sperm (XX) resulting in a baby girl or a boy sperm (XY) resulting in baby boy. Neither the man nor the woman can do

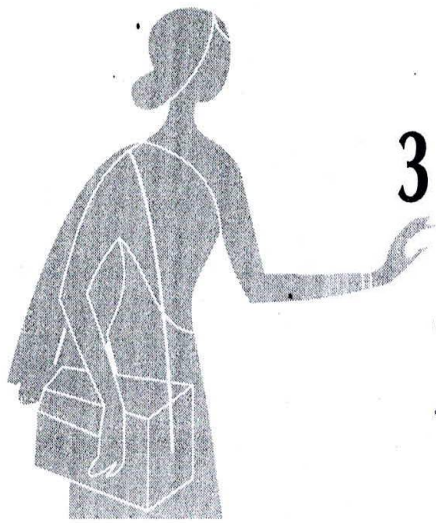


anything to make sure that either a boy or girl is born – this happens completely by chance inside the woman's body depending on whether a boy-sperm (XY) or girl-sperm (XX) meet with the egg. Hence it is wrong to blame a woman for not giving birth to a baby boy, as is generally done.

Roles and responsibilities of ASHA:

As ASHA, you may come across some couples in your village who have no children, or the woman is unable to get pregnant after one or two abortions. If the woman is 20 years of age or above and has been living with her husband for two years, leading a normal marital life but has not become pregnant, advise the couple to consult a nurse or directly go for a check-up to a doctor. Both partners must go together for infertility treatment as either or both of them may be having some problem, which needs treatment. Please note that couples often live apart because one of them has migrated in search of a job. It may be difficult for such couples to have a baby.

It is also possible that women are being blamed for having only girls. Some women may be deserted by their husbands and families for not producing a son. You should clearly communicate the role of men and women in deciding the sex of a baby.

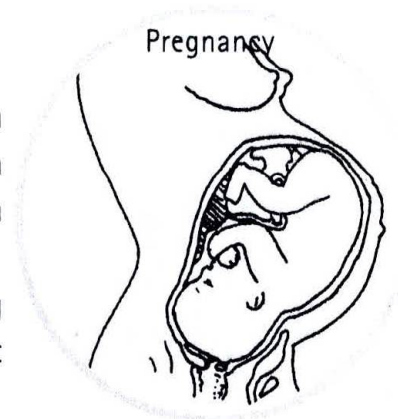


Care during Pregnancy

Pregnancy is a natural event in the life of women of reproductive age group. However, during pregnancy and childbirth some problems may arise which can threaten the life of the mother, baby or both. It is possible to identify women with some problems quite early if they have routine ante-natal check-up. This will enable them to access specialist care. Care during pregnancy is important to monitor progress and growth of the baby, detect complications at the earliest and treat them accordingly. During the visit the woman and her family should be advised proper nutrition, rest, exercise. They can make plans about where to deliver. This will help both the woman and baby to have a happy and healthy outcome. Minor ailments of pregnancy (e.g. vomiting, heart burn, constipation, backache etc.) are looked after during ANC.

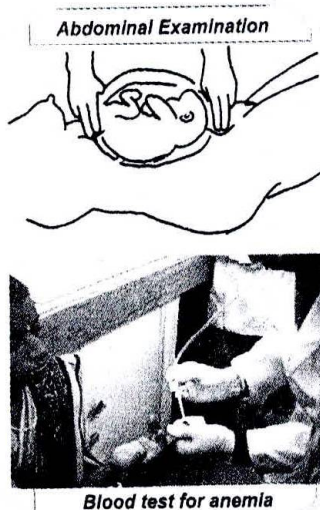
Schedule of pregnancy care

- The first visit is recommended as soon as the woman feels that she is pregnant. This is called registration of pregnancy, which ensures that all pregnant women receive care throughout pregnancy.
- In villages/districts where female foetuses are being eliminated before birth, it is further important that pregnancy is registered early.

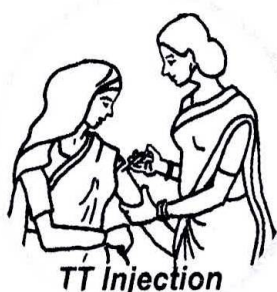


- The second visit should be made between the fourth and sixth month
- The third visit should be planned in the eighth month
- An additional visit in the ninth month would help provide better care.
- If the health worker identifies health problems during these visits, a visit to a doctor will become necessary.

What is done during pregnancy check-up and care?



- During the first check-up the complete history of this pregnancy and previous pregnancies, if any, and whether the woman has had any medical/surgical problem in the past is taken.
- The ANM will weigh the woman to see whether the woman is gaining adequate weight during pregnancy, and also check blood pressure (using a balloon-like instrument), and see whether it is normal or not.
- Breast examination to check whether breasts and the nipples are normal will be carried.
- Abdominal examination will be done to know the growth/position of the baby.
- A simple blood test will be done to see if the woman is anaemic (lacks blood) and if so, the severity. If the woman has anaemia, prompt treatment will help prevent complications.
- Urine examination
- TT Injection
- During repeated visits, details of any problem appearing since last visit will be taken care of. BP, weight, and abdominal examination will be repeated.



- Iron tablets will be given to all pregnant women and also treatment for anaemia depending upon the blood test results.
- By carrying out a complete pregnancy check-up, the ANM would be able to detect problems and decide on referring the woman to a doctor.

Pregnant women with any of the following conditions should be advised to meet a doctor

- Repeated neo-natal deaths, stillbirths, premature births or repeated abortions.
- Vaginal bleeding during present pregnancy.
- High blood pressure or abnormal urine test.
- If the woman's previous delivery was through abdominal operation or she has had some other abdominal operation in the past.
- The woman has heart disease, anaemia, high blood pressure, jaundice etc.
- Very big size of abdomen.
- Twins.
- Baby is upside down or in abnormal position inside the uterus.

As ASHA, you should counsel and help in getting such women to hospital.

Home care during pregnancy

- The woman's family and community have the key responsibility for making sure that the woman gets more food, takes rest and does not have to do heavy manual work during pregnancy
- The pregnant woman needs extra energy from food, for the sake of her own health, for the growing foetus and for effective breastfeeding later on.
- During pregnancy a nutritious diet which is rich in iron, calcium and protein is required. For this, a pregnant woman should eat more green, leafy vegetables like palak and sarson, dals, milk, jaggery, eggs, fish, meat, etc. Taboos and restrictions on a pregnant woman's diet, such as not allowing certain vegetables, fruits, milk and ghee, might in fact harm her and the baby.
- Pregnant women are entitled to get food from the anganwadi centre.
- A pregnant woman should not fast. This deprives her and the growing baby inside the uterus of essential food.
- Pregnant women should not carry out heavy manual labour, like working on construction sites, famine relief, brick kilns, etc. Other members of the family and community should help to reduce her work burden.

- Pregnant, adolescent girls are especially likely to be under-nourished and are more likely to suffer problems during delivery. They need extra nutritious food and help for safe delivery at a health facility.
- Sometimes there are overweight pregnant women who need to avoid eating fat-rich food like oil, ghee, sugar, etc), but they should continue to eat vegetables, fruits, nuts and milk which are rich in iron, calcium, vitamins and minerals. They should also take regular exercise and consult a doctor.

Anaemia in pregnancy

Lack of blood in the body is known as anaemia. It is very common in our country. Anaemia in pregnancy leads to complications in pregnant women and can even result in the death of mother and baby. You should be aware that a pregnant woman with anaemia looks pale, feels tired, complains of breathlessness on carrying out routine work, and might have swelling of the face and body. Anaemia can be prevented and treated completely if the woman follows the advice of ANM/doctor.

- Anaemia is treated with iron tablets, which have to be taken daily for many months during pregnancy or by giving injections. If the anaemia is severe, hospitalization and blood transfusion may be required.
- To prevent anaemia, all pregnant women need to take one iron tablet daily, starting after three months of pregnancy. In this way, she must take 100 tablets.
- While giving iron tablets, the woman should be advised that some side effects might occur. However, they can be managed in the following ways:
 - Nausea or occasional vomiting – this can be prevented/avoided by taking the tablet after meals.
 - Constipation – this can be managed if the woman drinks more water and eats fruits.
 - Black stools or mild diarrhoea.
- Iron tablets should not be taken along with tea as that reduces its absorption.
- Anaemia, pregnant women must have deliveries in hospital.

Malaria in pregnancy

- Malaria during pregnancy might be fatal for the woman and may cause abortion, stillbirth, low birth weight babies or premature labour.

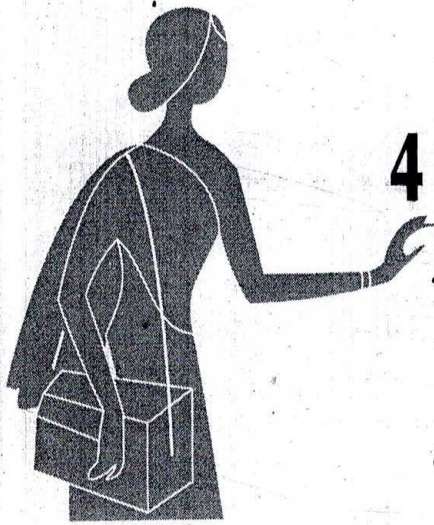
ALL PREGNANT WOMEN SHOULD HAVE EARLY REGISTRATION
(12-16 Weeks)
FOLLOWED BY MINIMUM THREE ANTE-NATAL CHECK-UPS
AND
HOSPITAL DELIVERY IN A HEALTH CENTRE OR HOSPITAL AS FAR AS
POSSIBLE.

Roles and responsibilities of ASHA:

- You should identify all pregnant women in your village.
- You should help pregnant women in getting registered between 12-16 weeks of pregnancy and in getting the next three ante-natal check-ups.
- Ensure all requisite examinations/investigations are done for all pregnant women.
- You should know the date and time of availability of ANM in Anganwadi Centre (AWC) in your village and inform all pregnant women about the same.
- Advise pregnant women regarding importance of balanced diet and ensure that undernourished pregnant women receive supplementary food from AWC.
- You should track the drop-out pregnant women especially those who live in remote areas, are below poverty line, schedule caste/schedule tribe/migrants etc and help them in accessing health services.
- Help eligible pregnant women to get benefits under Janani Suraksha Yojana
- You should also know
 1. The location of nearest FRU/hospital with obstetrician, anaesthetist, paediatrician, nursery, O.T. and blood bank.
 2. The mode of transport to reach facility should there be an emergency
 3. Approximate cost for Caesarean Section, blood transfusion and hospital stay, if it is a private hospital.
- In case, it is a second pregnancy, when a couple already has a daughter, ASHA needs to be alert to the possibility that the family may reject another daughter and counsel accordingly.

As ASHA you should advise the pregnant woman and her family about the potential danger signs during pregnancy, delivery and after delivery, the post-partum period. If she has any of the following problems, she should be taken immediately to the nearest functional FRU directly:

- Any vaginal bleeding during pregnancy.
- Heavy vaginal bleeding during and following delivery, especially if the woman is feeling weak and faint.
- Severe headache/blurring of vision.
- Convulsions or loss of consciousness.
- Labour pains lasting more than 12 hours.
- Labour pains before eight months or 32-36 weeks of pregnancy.
- Premature rupture of the bag of waters or leakage of water from uterus membranes, leaking etc.
- Failure of the placenta to come out within 30 minutes after delivery.
- Baby stops kicking inside the womb



4

Intra-Natal Care and Post-Natal Care

Intra-natal care

Delivery occurs normally after nine months of pregnancy. If delivery is before time special care for baby may be needed. As far as possible a pregnant woman should have the delivery in a health centre or hospital even if pregnancy is normal. This is mainly because during delivery, labour complications may suddenly occur which can threaten the life of mother, baby or both. During delivery the time between starting of a problem to death of mother, baby or both is so short that it may not be possible to save the life of mother or baby if the pregnant woman is not already in a well-equipped health centre or hospital.

- Ensure the availability of transport to the FRU/transport money available for the same, and how to access it in case of emergency and escort her.
- Find out the money/other provisions available under Janani Suraksha Yojana (JSY) for your area, who has the money and what is the procedure to get it and the reporting needed.

Roles and responsibilities of ASHA:

- Counsel/advise the pregnant women and their families for institutional delivery.
- Identify the location of the hospitals, health centres, institutions near your village which provide delivery services round the clock, where delivery can take place and the cost for the same, if any and how to reach the hospital.
- Escort/accompany the pregnant woman to the hospital for institutional delivery.
- If there is no functioning health centre or hospital within reach, or the family prefers a home delivery, you should advise the pregnant woman and her family to have the delivery conducted at home by a skilled birth attendant (SBA) such as ANM, staff nurse or doctor.
- In case a skilled birth attendant is not available, the delivery can be conducted by a trained TBA.
- Five cleans must be practiced during delivery: i.e. Clean hands, Clean surface, Clean new blade, Clean cord tie and Clean cord stump (do not apply anything on the stump).
- Place of delivery to be kept warm and free from draught.
- Help the mother in initiation of breast-feeding after delivery.

Post-natal care

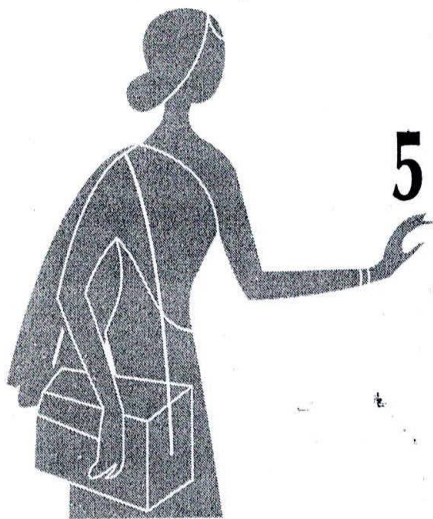
Post-natal period is the period of six weeks immediately after delivery, which is important both for the mother and the newborn. In this period, the changes, which have taken place in the organs/system during pregnancy in the woman come back to normal, except breasts. Mother and the newborn are susceptible to some problems which you should be aware of, so that they can be guided for treatment/referral.

Care during post-natal period

- During post-natal period, a woman requires nutritious and balanced diet, which is rich in iron, calcium, vitamins and proteins. She should increase her intake of green leafy vegetables, pulses, jaggery, etc. and eat to her satisfaction. She should also take more milk during this period.
- Under nourished women are given supplementary food from Anganwadi Centre by AWW. Ensure that they do come and receive it.
- It is important to give information about different contraceptive methods, which a couple can use during the post-partum period. A woman can have sex after six weeks, as by that time any perineal tear or other procedures carried out during child birth.

Roles and responsibilities of ASHA:

- Advise the woman at least one check-up within two weeks of delivery.
- Advise the women to visit the ANM for minor complaints e.g. sore breasts, cracked nipples, foul smelling discharge, pain in legs etc.
- Assist ANMs in conducting post-natal clinic and screening women and children with danger signals.
- Advise registration of birth.
- Counsel on exclusive breast-feeding for the newborn which:
 - helps in better involution of the uterus.
 - can produce lactational amenorrhea and thus act as natural contraceptive.
- Counsel them on contraceptive needs (temporary/permanent) as required and help the women/family to get the same.
- Ask mother to report if there is:
 - Excessive vaginal bleeding
 - Loss of consciousness
 - Fast or difficult breathing
 - Fever
 - Severe abdominal pain



Newborn Care

Every newborn needs certain essential elements of care immediately at birth and the first 28 days of life, irrespective of mode of delivery/weight of baby. It is important because for every 10 babies who die during the first year, five babies die in the first 28 days of their life.

Skin to skin contact

Provide privacy to the mother. Request the mother to sit or recline comfortably. Undress the baby gently, except for cap, nappy and socks. Place the baby prone on mother's chest in an upright and extended posture, between her breasts, in skin-to-skin contact; turn baby's head to one side to keep airways clear. Cover the baby with mother's blouse, 'pallu' or gown; wrap the baby-mother together with an added blanket or shawl.

- When the skin-to-skin contact is not possible clothe the baby in one-two layers (in summer), three-four layers (in winter) and cover the head & feet with cap and socks respectively. Let the baby and mother lie together on soft, thick bedding and cover them with additional quilt, blanket or shawl in winter.
- The baby should not be given bath immediately after birth.
- Advise the family that baby should be referred immediately to FRU if the baby has any of these signs:

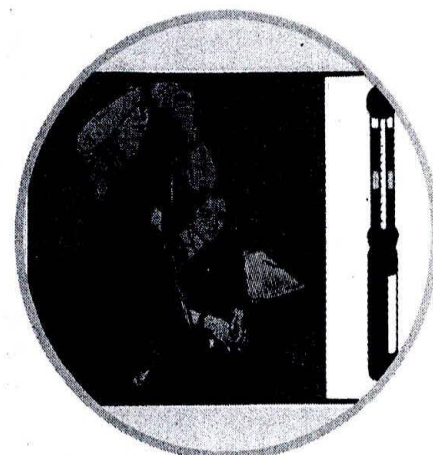
- poor sucking of breast
- becomes sicker
- develops fever
- fast breathing
- difficulty in breathing
- blood in stool
- pallor of palms/soles
- blue palms/soles
- abnormal movements (convulsions)
- remains excessively drowsy or cries incessantly
- develops yellow staining of the palm and soles
- feels cold or hot to touch
- bleeding from any site
- abdominal distension
- no meconium passed within 24 hours of birth
- no urine passed in 48 hours

Care to be taken during referral of newborn

- Mother should accompany the baby
- Fastest mode of transport should be used
- Baby should be kept warm, keep with mother whenever possible during referral.
- Breast-feed whenever possible

Weighing the baby

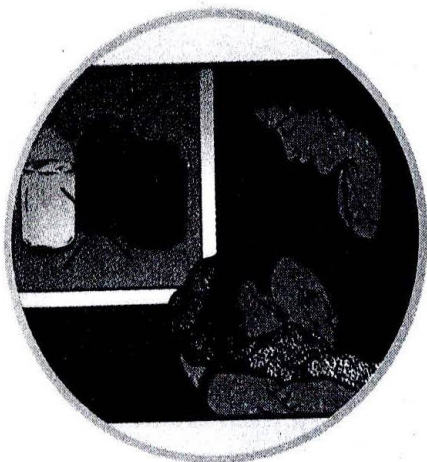
- You could find out if the weight of the newborn has been recorded. Baby should be kept with mother if found in green or yellow zone of the weighing scale.
- You should advise the women/families regarding cord care. No dressing/ medicine to be applied on cord.
- Advise regarding early initiation of breast-feeding immediately after delivery.
- Colostrum must be given as it prevents the baby from infections.
- Exclusive breast-feeding to newborn should be done for six months
- Baby should be correctly positioned during breast-feeding and should be fed on demand from both breasts each time. Feed the baby during the day as well as during night



If Baby is in Red Zone



Breast Feeding

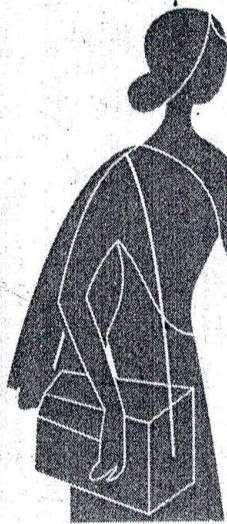


No pre-lacteal feeds

- While holding the baby, the mother also supports the baby's bottom and not just the head or shoulders. The baby's chin touches the breast, mouth is wide open and the baby's lower lip is turned outside.
- No pre-lacteal feeds to be given to the baby.

Roles and responsibilities of ASHA:

- You should advise pregnant women and their families about institutional deliveries. In case institutional delivery is not possible, newborn care at home can be given as follows:
 - advise the women to have delivery by skilled birth attendant.
 - advise the mother to keep the baby warm and dry. No aggressive wiping to be done to clean vernix caseosa as it can lead to loss of temperature.
 - ensure that baby is kept in close contact with mother (skin to skin contact) as much as possible during day and night. If mother is not available, skin-to-skin contact may be provided by the father/any other adult of the family.
- It is important to recognize that all newborn babies (both daughters and sons) need care.
- You should help parents to get birth registered with appropriate agency.



6

Unsafe Abortions & Medical Termination of Pregnancy (MTP)

You know that sometimes unwanted pregnancies occur. In such cases, the family or woman may want to abort the pregnancy. For this termination, pregnant women often go to untrained persons, dais etc. The methods employed by them for termination are not safe and the facilities are unhygienic. Hence, there is a great risk to the life of these women. You can educate such women with unwanted pregnancies about the dangers of these illegal, unsafe abortions. Such women should be able to confirm whether they are pregnant and if so, they can seek safe and legal abortion at a government health centre or government approved private hospital.

Abortions have been legalized since 1971 under certain conditions, as given in under the Medical Termination of Pregnancy Act ("MTP" Act). Such abortions can be carried out up to the fifth month (20 weeks) of pregnancy.

Government primary health centres can carry out abortion till eight weeks (2 months), while for an abortion after this period, a woman would have to go a hospital. Abortions done early in pregnancy are also safer than those carried out later. Hence, the woman should not wait till her pregnancy has advanced.

As per PNDT Act,

1. Detection of sex of foetus during pregnancy is illegal.
2. Termination of pregnancy after identifying the sex of the foetus as female is also illegal.

It is important to remember:

- Termination of pregnancy below 20 weeks is legal under provision of MTP Act.

There are two methods of terminating the pregnancy:

Surgical abortion

This is carried out by evacuating the embryo either using a hand held syringe or electric suction machine

Medical abortion

This is carried out by using pills

In both cases, it has to be done by a qualified doctor in any approved centre. Women undergoing MTP can get more details from PHC. There are advantages/disadvantages of both methods. In both cases, there has to be post-abortion care for the women undergoing MTP.

Post-abortion care

- Follow up after abortion is a must especially after the tablets are given for medical abortion.
- If the woman has any of the following symptoms, she should be immediately referred to the nearest functional FRU/District hospital.
 - Severe bleeding or foul smelling discharge from uterus
 - Severe pain in abdomen
 - Fever
 - Swelling in the abdomen or severe vomiting

Counselling of the women will help them to seek safe abortions which will help in decreasing deaths among pregnant women. After an induced abortion, a woman can become pregnant again within six weeks. Hence, it is advisable for the woman (and her partner) to be counselled for appropriate contraception and help them to get the suitable contraceptive if they wish to adopt.

Roles and responsibilities of ASHA:

- You should educate families and the community about the dangers of unsafe abortion
- You should know
 1. which are the centres/institutions approved by government for performing MTP near your village
 2. the days when MTP is done
 3. the expense if any.
- You can escort these women to the approved centres, if needed.
- Advise the women that although abortions can be done up to 20 weeks of pregnancy, yet it is safer for the women to get it done before 12 weeks.
- Educate them about the need to use effective contraception after undergoing an abortion, so as to minimize the need for further abortions.



Immunization is one of the most well-known and cost effective methods of preventing diseases. Though most of the Vaccine Preventable Diseases (VPDs) are controlled by now, immunization has to be sustained, not only to prevent VPDs, but also

- a) to eliminate Tetanus,
- b) reduce the incidence of Measles and
- c) eradicate Poliomyelitis.

The six vaccine preventable diseases are



DPT Immunization

- Tetanus
- Poliomyelitis
- Diphtheria
- Pertussis (whooping cough)
- Measles
- Childhood tuberculosis

The vaccines must be given at the right age, right dose, right interval and the full course must be completed to ensure the best possible protection to the child against these diseases. The schedule that tells us when and how many doses of each vaccine are to be given is called immunization schedule.

NATIONAL IMMUNIZATION SCHEDULE FOR CHILDREN AND PREGNANT WOMEN

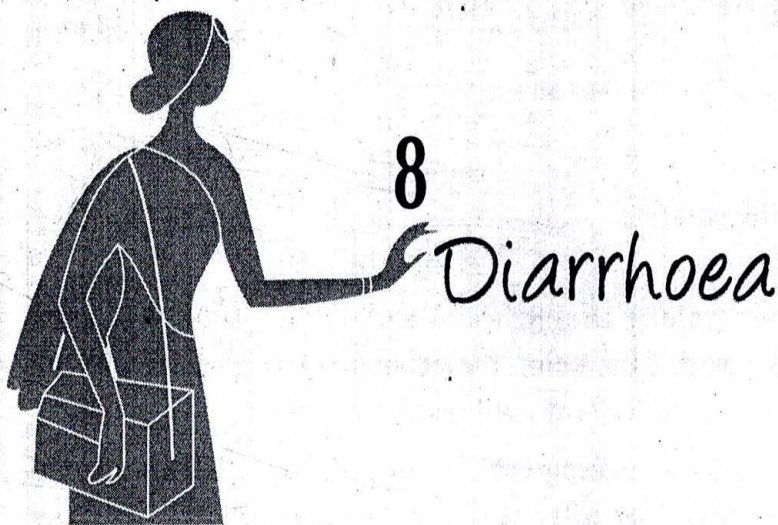
NAME OF VACCINE	WHEN TO GIVE	DOSE	ROUTE	SITE
For Pregnant Women				
TT-1 or Booster	Early in pregnancy	0.5 ml	Intramuscular	Upper Arm
TT-2	4 weeks after TT-1	0.5 ml	Intramuscular	Upper Arm
For Infants				
BCG	At birth or any time up to one year	1.1 ml 0.05ml (up to 1 month)	Intradermal	Left Upper Arm
OPV-0	At birth if delivery is in institution, but can be given up to 2 weeks.	2 drops	Oral	Oral
OPV 1,2 & 3	At 6 weeks, 10 weeks & 14 weeks but can be given up to 5 years	2 drops	Oral	Oral
DPT 1,2 & 3	At 6 weeks, 10 weeks & 14 weeks but can be given up to 2 years.	0.5 ml	Intramuscular	Mid-outer thigh
Measles	9 Months (9-12 months); should be given up to 5 years	0.5 ml	Subcutaneous	Right upper Arm
Vitamin-A	At 9 months with measles	1 ml	Oral	Oral
For Children				
DPT booster	16-24 months	0.5 ml	I/M	Mid-outer thigh
OPV Booster	16-24 months	2 drops	Oral	Oral
Vitamin-A	<ul style="list-style-type: none"> • 16 months with DPT/OPV booster • 24 months, 30 months & 36 months. (Minimum interval between two doses is 6 months)	2 ml	Oral	Oral
DT	5 years	0.5 ml.	Intramuscular	Upper Arm
TT	10 years & 16 years	0.5 ml	Intramuscular	Upper Arm

As ASHA, ensure that all children in your village and nearby area are fully immunized before their first birthday.

If a child is not given the right vaccines in time, it is necessary to get them started whenever possible and complete the primary immunization before the child reaches its first birthday.

Roles and responsibilities of ASHA:

- You should be well versed with the National Immunization Schedule.
- You should be aware of the number of children less than one year of age in your village.
- Assist AWW and ANM in making the arrangements for immunization in AWC.
- You should advise the mother to bring the immunization card every time she comes with the child for immunization.
- You should advise the mothers on use of Auto Disable (AD) syringes for immunizations, which come in pre-sterilized packs with a fixed needle. This helps in prevention of infection.
- You should help the mother in correct positioning of the child during immunization.
- Counsel the mothers that minor ailments, such as fever, cough, cold etc. are not a contra-indication for immunization.
- You should guide the mothers regarding minor side effects after immunization
 - Mild fever
 - Baby has Mild rash after measles immunization
 - Pain, tenderness and swelling at the site of injection
 - All these can be managed by giving 1/4th tablet of Paracetamol.
 - Baby should be referred to PHC/FRU if after immunization
- Baby is crying for more than three hours.
- High-grade fever.
- Baby is drowsy, convulsing or unconscious.
- You should ensure that all babies are immunized. Help AWW in tracking dropouts especially orphans and the children of migrants.
- You should also know about the incentive money in immunization and from whom to get the same and when.



Diarrhoea is defined as passage of liquid or watery stools. These watery stools are usually passed more than three times in a day. Passage of even one large watery motion among children can be labelled as diarrhoea. Normally there are three types of diarrhoea:

- Acute watery diarrhoea starts suddenly and may continue for a number of days but not more than 14 days. Most of these are self-limiting and will last for three to seven days.
- Dysentery is diarrhoea with visible blood in stools.
- Persistent diarrhoea begins acutely but is of unusually long duration i.e. lasting more than 14 days.

Diarrhoeal diseases are a major cause of death and disease among children under five years. Majority of the deaths in diarrhoea are due to dehydration (loss of water and minerals).

Four golden rules to observe if a child has diarrhoea

- If the child is breastfed, continue breast-feeding more frequently.
- If the child has started consuming other foods, continue feeding small quantities of these items.

- After the child recovers and normal appetite reappears, the child may be given more food than normal to regain lost weight.
 - Give extra fluids
 - Give ORS (Oral Rehydration Solution)
1. Continue feeding
 2. Give extra fluids
 3. Give ORS
 4. Refer in case of danger signs
- Advise the mothers to give Oral Rehydration Solution (ORS). You must have adequate stock of ORS, being the depot-holder, especially in the monsoon season and during any outbreak of diarrhoea.
 - Guide the mothers for preparing ORS. Take one litre of clean drinking water in a clean container after washing your hands with soap and water. Add one packet of ORS in it and stir it thoroughly so that the powder is mixed. Cover the vessel. One teaspoon of ORS should be given every one-two minutes to infants as per the table below:

Advise the mothers to give Home Available Fluids (HAF) e.g. plain clean water, lassi, shikanji		
Upto 2 months	2 months up to 2 years	2 years and more
5 Spoons	$\frac{1}{4}$ - $\frac{1}{2}$ cup	$\frac{1}{2}$ - 1 cup
<i>Give more if the child wants</i>		

(Do a demonstration of preparation of ORS)

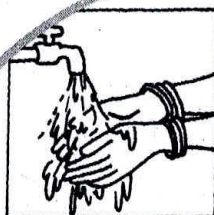


Fig. 39

Wash your hands with soap

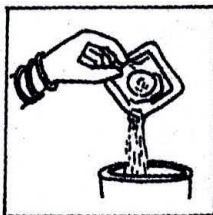


Fig. 40

Pour all the ORS powder into a container having capacity of 1 litre

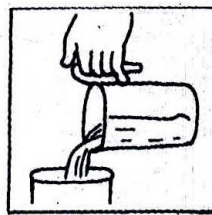


Fig. 41

Measure 1 litre of drinking water & pour it in container

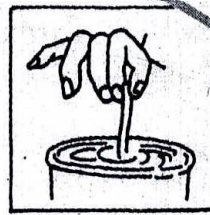


Fig. 42

Stir well until the powder is mixed thoroughly

Diarrhoea can be prevented by

- Giving exclusive breastfeeding for THE FIRST six months.
- Thorough hand washing before cooking food and feeding the child.
- Keeping containers clean for preparing the food and for feeding the baby.
- Keeping the food covered.
- Keeping drinking water covered.
- Consuming freshly prepared food within one hour.
- Keeping the house and neighbouring area clean and proper disposal of waste so that houseflies don't breed.
- Advising the families about getting the sanitary latrines constructed in the households.

Roles and responsibilities of ASHA:

- Advise the families about chlorination of water in case of floods etc.
- Refer in case of danger signs
- You should advise the family to take babies to the FRU immediately if the following danger signs/symptoms are there
 - Child becomes lethargic
 - Not able to drink or breast feed
 - Blood appears in the stool
 - Does not pass urine for eight hours
- You should know the location of FRU so that you can advise/escort the mothers/families with the babies to the FRU.





9

Acute Respiratory Infection



Respiratory Rate

Acute Respiratory Infection (ARI) is an important cause of mortality and morbidity in children. Most children up to the age of five years are susceptible to ARI. If not treated in time some of them develop pneumonia, which can result in death. The child has some or all of the following symptoms:

- Cough
- Running nose
- Fever
- Difficulty in breathing.

Serious morbidity and death are preventable if it is identified early and treated/referred in time.

Care during coughs & colds

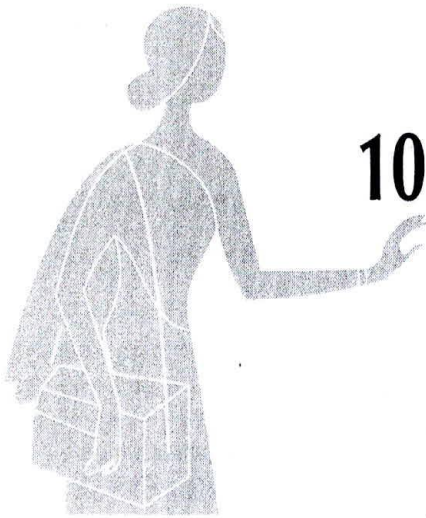
- Keep the child warm.
- Give plenty of fluids and continue breast-feeding.
- Give home remedies – ginger, honey, lemon, kadha, etc.

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- Increase feeds after the child recovers.
- Enough rest is to be taken by the child.
- Giving immunization to children on time for vaccine preventable diseases also helps.
- Timely administration of Vitamin A.
- Good nutrition and avoiding exposure to cold, dust and smoke will help in preventing pneumonia.

Roles and responsibilities of ASHA:

- Advise about feeding the child: the feeding should be continued during illness and the frequency of feeding increased after illness
- Clear the nose if it interferes with feeding (use saline and a moistened wick to help soften the mucus).
- Increase fluids; give the child extra fluids to drink.
- Soothe the throat and relieve cough with a home remedy such as lemon with honey and ginger, tulsi, warm water etc.
- Control fever using Paracetamol.
- Keep the baby warm.
- You should accompany the parents in taking the child to the nearest health facility if the child has any of the following danger signals:
 - Fast breathing.
 - Difficulty in breathing.
 - Unable to drink.
 - Lethargy (susti).



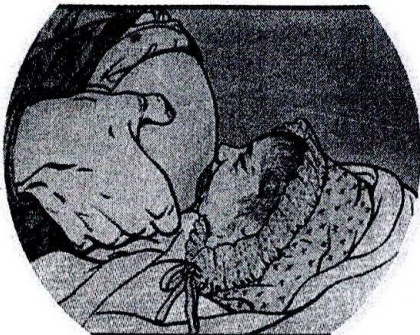
10

Infant and Young Child Nutrition: Breastfeeding and Complementary Feeding

Nutrition is required for a child to grow, develop, and remain active and to reach adulthood without illness. Nutrients such as carbohydrates, fats, proteins are required in large amounts (macro nutrients), while some nutrients e.g. Vitamins, Iron, Calcium, Iodine etc. are required in minimum amounts (micro nutrients). Growth of the child can be assessed by plotting height & weight for the age in Road to Health Chart. If the child is not growing properly, it means the child is malnourished i.e. under nourished.

Nutrition in children is divided according to age as is given below:

0-6 months exclusive breastfeeding

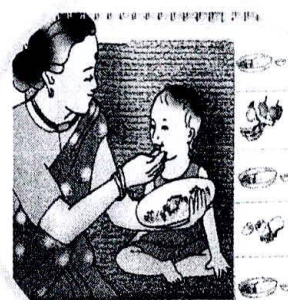


- Infants up to six months are to be exclusively breast-fed. Feed at least eight times a day.
- Mothers should be encouraged to breast-feed on demand.
- Bottle-feeding should be discouraged and anxious mothers should be reassured.
- Breast milk is the ideal food for young infants as it contains all nutrients.

- Chances of malnutrition in breast-fed infants are less.
- It prevents infection, as it is clean and free from bacteria.
- Colostrum acts as the first immunization for infants.
- Breastfeeding enhances brain development
- Breastfeeding increases mother and child bonding and helps in better development of the child.

6-12 months complementary feeding

- Start home based complementary foods after six months four-five times a day.
- Continue breastfeeding as often as the child wants.
- If the child is not breastfed, it may be given undiluted milk by a cup and complementary food five times a day. Wash hands before feeding.
- Food should be mashed and it should be freshly prepared.



12 months-two years

- Continue breastfeeding for two years or beyond. Give home based food four-five times a day

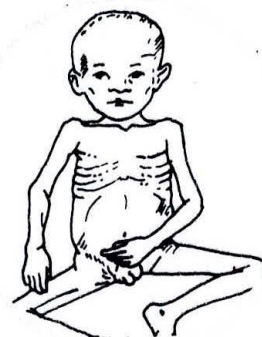


Two years onwards

- Children should be given hence-cooked food five-six times a day as they eat in small quantities.
- Children should be weighed every three months to assess their growth in all age groups.

Malnutrition in children

- A child with severe malnutrition is at risk of dying from various infectious diseases.
- All children less than two years of age should be assessed and the parents should be counselled.
- Additionally, children who appear weak or appear smaller for age need counselling to improve their nutrition.



Malnutrition in children

Roles and responsibilities of ASHA:

- Support women to breast feed exclusively up to six months
- Educate families about complementary feeding, demonstrate preparing complementary foods
- Counsel the mothers to take the children for weighing at AWC at least once in every three months and look for under nourished children
- Counsel mothers not to ignore nutritional needs of girl child
- You should advise mothers regarding the availability of supplementary food from AWC and ensure that all eligible children get their entitlement from the AWW
- Track the undernourished children and ensure that they get the supplementary food regularly. The weight gain in these children should be checked at regular intervals.

Feeding during illness

Food intake of infants and young children decreases during illness, however the energy requirement increases. Hence, it is important to know how and when the ill child should be fed.

As ASHA you should:

- Advise the mothers that feeding should be continued even during illness.
- Food should be given in small amounts but more frequently.
- Simple home-cooked food should be given, which is easily digestible.
- Advise mothers to continue breast-feeding more frequently for a few days after an episode of illness.
- Advise the mothers not to dilute the dal or other foods for the baby. Take out food for the child and then add spices in the food for rest of the family. Add a spoonful of butter/ghee/oil in the baby's food.

Micro nutrients (Vitamin A, Iron, Iodine)

Vitamin 'A' Deficiency

Vitamin A is important for normal vision though in very small amounts. It is not possible for even that amount to be synthesized in the body. Vitamin A deficiency is most common between six months and three years. It can even cause even blindness. Night blindness is an earliest symptom.

Roles and responsibilities of ASHA:

As ASHA, you should advise the mothers regarding:

- Six monthly doses of Vitamin A to be given to children between six months to three years.
- Increase intake of carrots, green leafy vegetables, yellow fruits, eggs, milk, fish etc. in food.
- You should assist ANM/AWW in tracking dropouts and give Vitamin A to children suffering from measles.

Iron deficiency anaemia

In children it is very common because of inadequate diet and recurrent infections and worm infestations. Give one small iron tablet daily for 100 days in a year to children under five years.

Roles and responsibilities of ASHA:

- Advise regarding proper nutrition with iron and protein rich diet (jaggery, milk, eggs, pulses, green leafy vegetables, guavas, apples, etc.).
- Advise regarding prevention of diarrhoea and importance of de-worming.
- Inform that iron can cause dark discoloration of stools/increased or decreased frequency of stools.

Iodine deficiency

Iodine is a very important trace element. It is required for the normal growth and development of human beings. Its deficiency during pregnancy can lead to spontaneous abortion/still birth and cretinism/mental retardation in children.

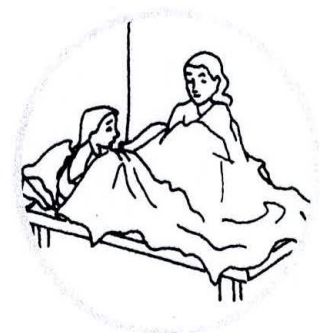
You should advise the pregnant women to take iodized salt in food, which is enough to prevent the iodine deficiency.



Fever is a common symptom of many diseases, which may be simple or serious. Some mild fevers subside without any treatment/treatment at home e.g. fever with no cough/running nose/ear discharge/with no rash/without diarrhoea/without any obvious infection etc. However, in many children it may be a symptom of an acute severe illness. For fever in children a blood smear examination should be done.

Temperature and fever

Our body is warm both in summer and winter. When it is very hot outside, our body perspires. It releases water and cools like an earthen pot. When it is very cold outside our body shivers to generate heat. In all seasons our body remains warm enough to maintain all its functions. The normal body temperature is just above 36°C or 98°F .



After an attack by germs, our body works very fast. It generates more heat and hence fever. But excess fever may be harmful and lead to several complications.



Measuring fever in adults

It is wise to take a sick person's temperature even if she/he does not mention about having fever. Touch your own forehead and the person's forehead with both sides of your hand. If the person's forehead is warmer than yours, she/he may have fever. This is a simple way to find out if someone has fever or not.

Thermometer is used for measuring temperature



- Take a simple oral thermometer and shake it well. See that its mercury mark is below normal (36°C or 98.4°F). Do not hold or touch the bulb of the thermometer. Hold the thermometer by the bigger end with no mercury because mercury line will go up and you might get a wrong reading.
- Put the thermometer's bulb end under the tongue in the patient's mouth or armpit for two minutes.
- The oral temperature is a bit higher than the armpit.
- Take it out to see closely while turning it slowly.
- Record the temperature of a sick person. Is it more than $36^{\circ}\text{C}/98.4^{\circ}\text{F}$?
- Temperature of 37°C – 39°C is mild fever.
- Between 39°C and 40°C is moderate fever.
- Above 40°C it is high fever (refer any person with high fever after sponging and tablet Paracetamol).
- Clean it with water after each use.
- For your information, thermometers have mercury inside which is toxic and hence adequate care should be taken when used for children.

Treating Fever

- Mild fever generally needs no treatment unless we are thinking of some infections like malaria, TB, pneumonia etc.
- For moderate fever Paracetamol tablet is the best treatment. One tablet thrice a day is enough for adults. For more details see table

on drugs in Book 1. Give tablet Paracetamol for two days. For high fever, tepid water sponging is good first aid, with Paracetamol tablets. If fever doesn't come down within two days, refer to the nearest health facility. Sponge the whole body with tepid water. Do not use cold water as it causes shivers. Do not give a blanket. Keep windows open

- Give enough water and fluids to drink.
- Light meals like khichadi, daal-rice, curd, dalia are soft and easily digested.
- Fever is the symptom of a disease. It is not a disease in itself. Paracetamol tablet or syrup is general remedy for fever. It only brings down the temperature. It is not a fever-cure since it does not kill the causative germs. For common colds and coughs, Paracetamol or herbal remedies are good enough and no other treatment is necessary.

Some home remedies for fever

Home remedies soothe the effects of fever. Give her:

Gulvel kadha

Take a thumb thick piece of Gulvel. Add two-teaspoonful powder of dry ginger. Add 10-12 glasses of water. Boil on slow fire. When three glass full decoction remains, cool it. Give half a glass of freshly made decoction.

China grass tea

Tea prepared with China grass is a refreshing decoction for someone suffering from simple fever.

Specific treatment for illness

For illnesses due to various germs we need to give specific medicines. Malaria, pneumonia, TB, etc need specific medicines other than Paracetamol. However viral illnesses have no specific remedies. Virus is a very small germ causing many fever-illnesses. Common cold, flu, dengue, jaundice etc are viral illnesses.

Remember several serious illnesses may be connected with fever e.g., malaria, pneumonia, pus (anywhere) typhoid, TB, kala azar, filariasis, brain fever, HIV/AIDS etc. We will learn about them. As a thumb rule, do not wait for more than two days for cure.

Roles and responsibilities of ASHA:

- Advise the mothers/families to take the child to PHC immediately if:
 - a child is less than two months old.
 - there is fever with unconsciousness/drowsiness.
 - there is fever with convulsions.
 - there is with fever, child not able to drink.
 - there is fever for more than five days.
- You should know the fever cases in your village and help malaria workers in getting blood samples from these fever cases.
- You should also know in which months of the year fever is common in your village. As a depot holder you should have adequate stock of chloroquine with you during these months.
- Give chloroquine tablets to children with fever as per the recommended dose. Ensure that children take complete treatment.
- For more information on prevention of malaria, please refer to chapter on malaria.