

diseases.

3.2. HEALTH AND DISEASE :

Health and disease are both sides of the same coin. In other words, it is like day and night. If a child is free from disease, he is said to be healthy.

TER-III

PREVENTABLE DISEASES

Freedom from diseases promotes good health, long life, fruitful productive years and economic prosperity of an individual and the nation.

Disease is a state of discomfort or uneasiness, in which the normal functioning of the affected person is disturbed. In other words disease is the experience of failure of an organism in its effort to respond adaptively to environmental challenges.

3.3. DIFFERENT CHILDHOOD DISEASES

There are certain disease of childhood, which occur frequently among them. Do you know or have you heard about these? These diseases are - Diarrhoea, Measles, Cholera, D.P.T. Tuberculosis etc. We will discuss about them in detail, at the end of this lesson.

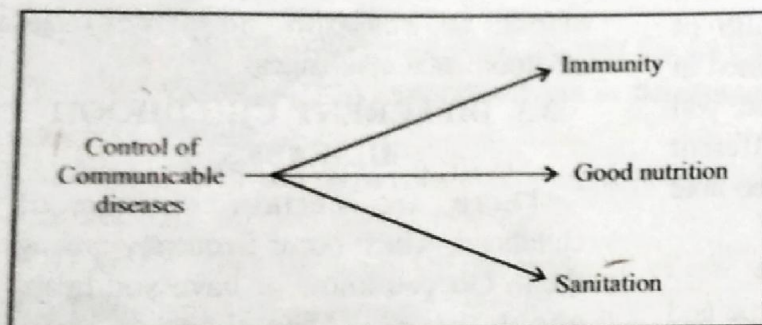
3.4. TYPES OF DISEASES :

Diseases are of two types- Communicable and non-communicable disease. Communicable diseases spreads from one person to another. Examples of communicable disease are Influenza, T.B. Whooping cough, Measles, Cholera etc. Non communicable disease does not spread from one person to another. Communicable disease spreads through three different medium. They are

1. Through contact with the affected person.
2. Through air, water, food and insect bites (mosquitos)
3. Through different agents, pathogens, such as, bacteria, virus, worms etc.

3.5. PREVENTION AND CONTROL OF COMMUNICABLE DISEASES:

Communicable disease can be prevented and controlled by three factors. Example : Immunity, good nutrition and sanitation.



In the first year, you have already studied about the importance of good nutrition and its relation to good health. You have gained some knowledge regarding the importance of personal hygiene to prevent different disease. Now, we will discuss about immunity and immunization

3.6. CONCEPT OF IMMUNITY AND IMMUNIZATION

Have you noticed small children suffering from influenza, diarrhoea,

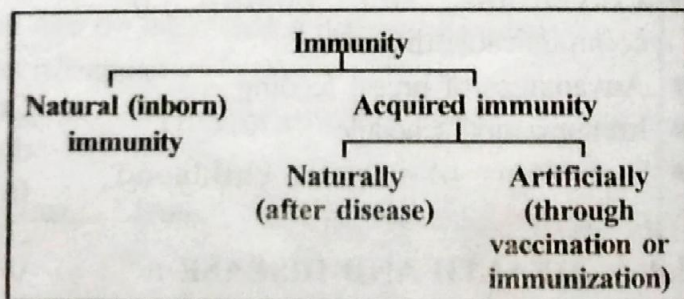
measles etc. Did you suffer from these disease too? These diseases are caused by different bacteria, virus etc. We can prevent these by some ways and means and these ways are known as Immunity. Can you define immunity and immunization?

Immunity is the ability of a person to prevent or resist disease and death. On the other hand, immunization is a process of developing antibodies in an individual by artificially introducing controlled number of germs into the body.

Do you know what are antibody? Antibodies are the chemical substances found in the blood, which act against germs.

3.7. TYPES OF IMMUNITY:

There are two types of immunity. They are– Natural and Acquired immunity.



Natural immunity is present at birth. Some antibodies gets transferred from mother to infant during breast-feeding.

Acquired immunity means- when a child is suffering from disease, antibodies are developed by the body to prevent the action of germs of the disease. When the body can acquire immunity, it is known as acquired immunity. One can acquire immunity by two ways. One, after suffering from any disease, the body can produce its own antibodies to fight against the germ. In the second case of artificial immunity the weakend or dead germs are introduced into the body. The substances introduced into the body through a needle can prepare antibodies to prevent the disease. This is known as 'Vaccination'. Have you heard about this.

Small children are protected from various diseases through vaccination or immunization. Can you name some of these disease? They are- T.B. D.P.T. Whooping cough, Polio, measles, tetanus etc.. We will discuss about the signs and symptoms of these disease in detail. Now, let us see how natural immunity can be developed through breast feeding.

3.8. BREAST FEEDING:

Breast feeding is initiated to a new born infant after 30 minutes of birth. The child receives good nutrition from the mother's milk, for which proper growth and development takes place in children.

The initial milk (soon after child birth) is thick and yellow in colour. This type of milk is known as 'colostrum'. Colostrum contains vitamin- A, high quality protein

and antibodies. It should be fed to the new born infant to provide natural immunity. The child should be breast fed exclusively for first six months. Breast milk contains all the essential nutrients and the child may suffer from diarrhoea or any other stomach ailments, if complementary food or any other solid food is given to them at this age.

Infants should be given Complementary foods such as rice powder kheer, tinned foods, khichiri, boiled vegetables, suji etc, along with breast milk after 6 months of age. Breast-feeding can be continued upto the age of two years. Thus, breast-feeding has some advantages for both mother and the child. They are discussed below-

3.9. ADVANTAGES OF BREAST-FEEDING:

A. For Children :

1. Breast feeding provides natural immunity.
2. Breast milk is natures gift to each and every child.
3. Breast feeding stimulates five senses of the child.
4. Breast-fed child is more intelligent.
5. Breast-feeding prevents some disease like - diarrhoea, pneumonia etc.
6. Breast-feeding reduces the mortality rate among children.

B. For Mother :

1. Early initiation of breast-feeding lowers the mother's risk for excess post partum

bleeding. It also reduces the occurrence of anaemia or prevents iron deficiency.

2. Breast-feeding helps a mother to shed extra weight gained during pregnancy.
3. Breast-feeding strengthens the bond of love between mother and the child.
4. Breast-feeding boosts mother's immune system.
5. Exclusive breast-feeding delays next pregnancy and reduces the insulin needs of diabetic mothers.
6. Breast-feeding can protect a mother from breast and ovarian cancer and osteoporosis.

3.10. IMMUNIZATION CHART.

You have already studied about immunization and its types. Soon after birth each child is artificially immunized i.e. vaccination is given to prevent various diseases. These vaccines should be given to the child at different age and time. Under the universal immunization scheme of the Government, children are being given these vaccines at free of cost through Primary Health Centres. The immunization schedule has been given below-

3.11. IMMUNIZATION CHART FOR SMALL CHILDREN.

Name of the child :

Age :

Date of birth :

Sex :

Name of doctor :

Telephone no. :

Father's name :

Mother's name :

Home address :

Telephone no. :

Address of the clinic :

AGE :	NAME OF THE VACCINES
At birth or within 48 hrs.	Polio dose and B.C.G
0-1 month	Hepatitis-B (1st dose)
1½ month	D.P.T. Polio
2½ month	D.P.T. Polio, Hepatitis- B (2nd dose)
3½ month	D.P.T. Polio, Hepatitis- B (3rd dose)
9-12 month	Measles with Vitamin A solution
15-18 months	MMR
16-24 months	DPT, Polio (Booster dose)
At 2 years	Typhoid
At 5 years	Polio, DT (Booster dose)

You too have been given vaccine for these diseases and must have a health card. Because, these vaccines are very essential for each child. Let us know about these vaccines-

1. B.C.G. (Bacillus Calmette Guerin): It provides protection against tuberculosis. It is given at birth and the reaction may occur within 3-4 weeks.

2. D.P.T. (Diphtheria, Pertussis, Tetanus) : It is a triple vaccine providing immunity against diphtheria, pertussis or whooping cough and tetanus. The first dose is injected at 6 weeks of age and the subsequent two doses are given at an interval of 4 weeks. The child may have mild fever after injecting this vaccine.

3. Polio- It is an oral vaccine providing immunity against Polio disease. The first dose is given at birth, second and third doses are given at an interval of 4-8 weeks each. Have you heard about pulse Polio? The Government of India has undertaken this programme to eradicate polio.

4. Hepatitis-B- This vaccine provides protection against jaundice. Jaundice occurs from a virus. The virus is transmitted through contaminated needles and blood transfusion. New born infant gets it from his carrier mother. This vaccine should be given to the baby at birth or one month after birth to protect the child from jaundice. Second dose at 2 months and third at 3½ months.

5. Measles: On the 9th month of

the child, this vaccine is given to protect from measles. Some children may have fever after injecting measles vaccine.

6. M.M.R. (Measles, Mumps and Rubella) : This vaccine provides immunity against three disease. It is given at the age of 15-18 months.

7. Typhoid: It is a vaccine providing immunity against typhoid. Typhoid vaccine provides limited protection only. Therefore second dose can be repeated at an interval of 1-1½ months.

3.12. SYMPTOMS OF CHILDHOOD DISEASE

During childhood, along with fever, cold and cough, children suffer from other diseases also. The symptoms of these disease are discussed below.

1. Tuberculosis : The causative agent of this disease is tubercular bacillus bacteria. It spreads through air. Tuberculosis occurs among children from birth to all age group. The incubation period of this bacteria is from 4-6 weeks and it occurs during any season of the year. The symptoms of tuberculosis are weakness, loss of weight, loss of appetite, rapid pulse rate, fever, bad breath, persistent cough etc. When a child is suffering from tuberculosis, he should be isolated from other children. Nutritious foods should be given and the child should be kept in a clean room. Cough and sputum should be disposed off safely.

2.D.P.T. : It is a combination of three disease and the symptoms of these diseases vary. They are discussed separately.

a. Diphtheria : It spreads through air and direct contact with an infected child. The causative agent is corynebacterium diphtherial bacillus bacteria. It occur among children from birth to five years of age. The incubation period is usually 2-5 days and occurs mostly during winter season i.e. in the month of November and December. The symptoms are high fever, sore throat with pain, white film on tonsils constricting the respiratory tract, difficulty in swallowing, paralysis of muscles of palate, eyes, abdomen, arms and legs. Early diagnosis and proper treatment is important. Do not allow other children to use the infected toys and feeding utensils of the sick child.

b. Pertussis : This disease spread through air. The causative agent of pertussis is Bacillus Pertussis. The occurrence of the disease is late winter and spring season. The incubating period is 1-2 weeks. General symptoms are severe cough, vomiting, difficulty in breathing, weakness etc. Children suffering from pertussis should be kept warm and given treatment as prescribed by the doctor.

C. Tetanus : It occurs in contact with rusted metal parts or dirty soil. The causative agent is Tetanus bacillus. bacteria, It occurs among children of all

age groups. The incubation period is from 4 days to 2 weeks. Symptom are headache, fever, restlessness, difficulty in chewing and swallowing, back bends in the shape of bow, locking of joints etc, Tetanus may occur at any season. Persons suffering from tetanus should be provided immediate treatment. and should be admitted in hospital under doctor's supervision.

3. Polio : Polio may spread through contaminated food and water. The causative agent is a virus. Polio affects young children. Incidence of polio is higher during hot weather and the incubation period is 10-12 days. The symptoms are fever, headache, drowsiness, vomiting, diarrhoea, pain in hands and feet, weakness etc. Fever and vomiting should be controlled for children suffering from polio. Once vomiting stops, sufficient fluid should be given to drink. The child should take sufficient rest and should follow doctor's instructions.

4. Measles : The causative agent of measles is a virus. Spitting of infected nose and throat secretins everywhere or by contact with soiled articles used by infected person, measles may spread. It occurs among children from few months to eight years. The virus can affect the body within 10-12 days. Incidence of measles is more from January to April. The symptoms are cough and cold, fever, small rash appears first on face and neck and later on the whole body,

PROTECTION FROM PREVENTABLE DISEASES

sore eyes, very sensitive to light etc. The affected child should be isolated from others. Application of cold water, ice can reduce itching and inflammation of the body. Dim light should be used and the child should not be allowed to go out.

5. Cholera: It is caused by the consumption of infected food and water. The Consative agent is bacillus bacteria and incubation period is 1-5 days. The disease is characterised by loose watery motions like rice water, vomiting, excessive thrust, low urine volume etc. It may occur at any season of the year, especially during any festivals, pujas, mela etc., where there is a crowd, cholera may break-out. The child should

be given plenty of fluids to drink. A doctor should be consulted immediately and if needed, saline should be given.

6. Diarrhoea : It occurs due to certain, bacteria or virus. Due to poor environmental sanitation. Consumption of stale food and foods prepared in an unhygienic condition, diarrhoea may cause. The symptoms are stomach ache, frequent watery stool, weakness, excessive thirst, fever, vomiting etc. In diarrhoea, loss of water from the body results in dehydration. Therefore, persons suffering from diarrhoea should be given enough water to drink. O.R.S. (Oral rehydration solution) or salt and sugar solution can be given.

SUMMARY

- Disease is a state of discomfort of the body, where the normal functioning of the affected person is disturbed
- Diseases are of 2 types-communicable and non communicable disease.
- Communicable diseases spreads through 3 different medium.
- Immunity is the ability of person to prevent disease and death.
- Through immunization germs are introduced artificially in the body to develop antibodies.
- Immunization are of 2 types - Natural and Acquired.
- Children acquires immunity through breast feeding.
- Breast-feeding helps both the mother and the baby.
- Through immunization different vaccines are given to the child at different age.
- Various childhood diseases are Tuberculosis, D.P.T., Polio, measles, cholera, diarrhoea etc. The symptoms are different for each of these disease.