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FACE THE CHALLENGES AGAINST THE HEALTH HAZARDS

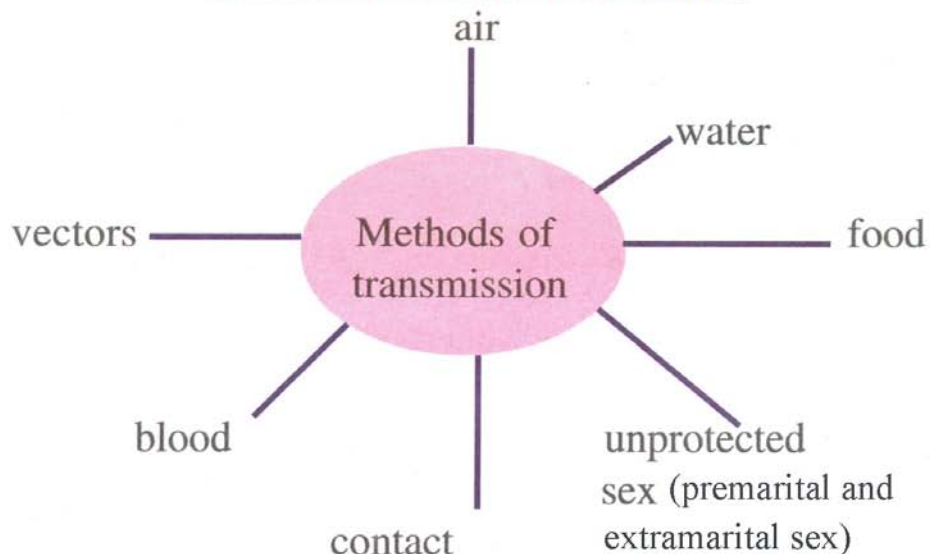
Infectious diseases and Non infectious diseases.

- Infectious diseases are transmitted from one person to another, These diseases are transmitted by virus, bacteria, fungus etc.
- Non-infectious diseases are transmitted from parent to off - spring due to inherited genes, or enviromental factors etc.

Infectious diseases

Diseases affect our health and are a great challenge to our daily life. From your childhood you should gain knowledge about diseases to overcome the challenges.

How diseases are transmitted



In our country, diseases like tetanus, whooping cough, diphtheria, tuberculosis and measles have been brought under control by vaccination programmes.

- You may have heard about the triple vaccination (DPT). This triple vaccine is for diphtheria, whooping cough and tetanus. During the 1st year, an infant should be immunised against these three diseases.

1st dose at the age of two months.

2nd dose at the age of four months.

3rd dose at the age of six months.

4th Booster dose at the age of eighteen months.

- B.C.G vaccine for tuberculosis at birth
- Measles vaccination at the age of nine months.

These vaccines are compulsory. Ask your parents whether they have immunized you against these diseases and when. You may check your child development record.

Air - born diseases

A very common disease among school children is (cough and cold.) influenza. It is a viral disease with an irritation at the back of the throat and nasal discharge. This gets cured naturally. However sometimes this condition can develop into pneumonia which is a dangerous situation.

It is better to prevent diseases than cure.

As a school child what actions should you take to avoid the infection.

- ★ Keep your environment clean.
- ★ Avoid crowds, overcrowding is one of the causes to the spread of this infection.
- ★ Avoid air pollution (with kitchen smoke, cigarette smoke, factory smoke)
- ★ Take nutritious food and drinks.
- ★ Keep the house free of dust. ★ Eat food with vitamins.

When you get a cough and a cold, rest on the very first day. Keep away from your school mates.

Measles

Our ancestors believed that diseases such as measles, chickenpox, are “illnesses of Gods”. When there was such a patient in a house they observed customs like “puja”, hanging margosa leaves in front of the house. That was because they had no clear idea of how these diseases were caused. Now we all know that cause of measles is a virus spread through air. Every child is immunised against measles, at the age of nine months. By any chance, if parents fail to vaccinate the child, that child may get the disease. The infection spread very quickly.

How the disease is spread

- ★ When a patient coughs or sneezes
- ★ Through a patient’s exhaled air
- ★ Through saliva

Disease carrying organisms are released to the air by a patient. When this air containing the virus, is inhaled by another, he/she becomes a victim of the disease.

Symptoms of measles

Fever, red eyes, cough, influenza and high fever after about four days a rash on the skin. The patient is able to spread the disease even before the symptoms appear because the infected person show symptoms later.

Proper immunisation at the age of nine months will protect him/her from measles.

Once you get measles you are naturally immunised for life. A weak child after an attack of measles is liable to get pneumonia and other infections by bacteria and virus in the respiratory tract.

Water and food-born diseases

Diarrhoea, Typhoid, cholera are some diseases, spread by water and food. Diarrhoea and Cholera which is spread by contaminated water and spoiled food is the biggest challenge in our country. One of the main reasons for the high level of malnutrition in our children is repeated attacks of diarrhoea.

The disease causing organisms are

- ★ Bacteria eg. Shigella
- ★ Virus
- ★ Protozoa eg: Entamoeba

What is diarrhoea

Frequent discharge of watery stools, two or more times a day. If blood is mixed with the stools it is a more serious condition which is known as dysentery and immediate medical treatment is necessary.

Diarrhoea can cause dehydration, loss of water and salt from the body, which could ultimately lead to death.

Principles of treatment for diarrhoea

- ★ Give as much liquids as possible.
- ★ Give easily digestible food and feed them more frequently.
- ★ Do not give any medicines which reduce gut motility. The bacteria may remain in the body and increase the severity of illness. In case of dysentery and cholera or other severe forms of diarrhoea medicine should be given only on advice of a doctor.

What liquids are suitable to a child suffering from diarrhoea.

- ★ For infants continue breast feeding
- ★ Jeevani (ORF)
- ★ Roasted rice cunjee
- ★ Lime juice
- ★ Soup
- ★ Rice cunjee.
- ★ Rice pop cunjee.
- ★ King coconut water
- ★ Boiled and cooled water

How do you prepare Jeevani (ORF)

- ★ Dissolve the total content of the packet of 'Jeevani' in one litre of boiled and cooled water.
- ★ To measure 1litre of water use 2 1/2 bottles of a 400ml Soda bottle. The bottle should be well cleaned.
- ★ Do not keep the prepared mixture for more than 24 hours. Throw away, whatever is left.

Symptoms of de-hydration

- ★ Thirst, a dry mouth, due to loss of water
- ★ Dry lips. dry tongue
- ★ Little urine is passed
- ★ Patient gets weak
- ★ Becomes restless
- ★ Sunken eyes
- ★ The skin shrinks

Prevention of Diarrhoea

- Practise good health habits. Drink clean water and take hygienic food.
- Use boiled and cooled water to drink.
- When you go to school take a bottle of water from home.
- Wash green leaves well before use.
- Always use a latrine. Make it a habit to put the feaces of children into the latrine pit or bury it under the soil.
- Always try to eat food prepared at home.

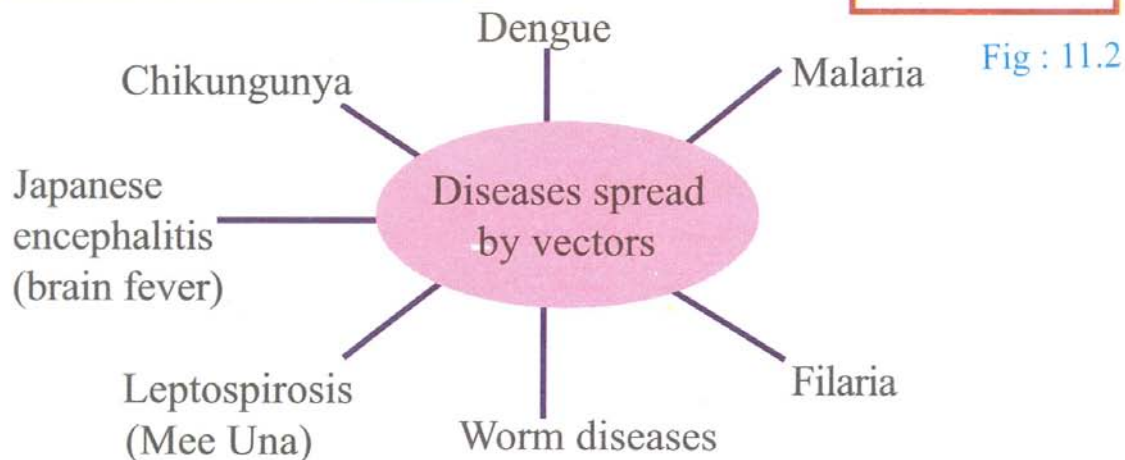


Fig : 11.1

- Wash both hands with soap and water after using the latrine, before preparing meals and before you eat food.
- Keep food covered to protect from flies.
- Avoid ice packets and unprotected food.



Diseases spread by vectors



It is very important to have a knowledge of how to prevent these diseases. The knowledge you gain from school, you should first give to your family members and then improve the knowledge of the community.

Dengue

It is a viral disease spread by two kinds of mosquitoes.

- *Aedes aegypti*
- *Aedes - albopictus*

Symptoms of Dengue

- fever
- headache
- vomiting
- body pain
- stomachache

After 3 or 4 days these symptoms will lessen and the patient may recover. Some patients may reach the dengue haemorrhage state.

Symptoms of Dengue haemorrhage

- Red patches under the skin
 - Other bleeding manifestations eg. gum bleeding
- If any fever goes beyond three days, consult a qualified medical officer and get done a full Blood Count.

Where does the dengue mosquito breed

It breeds in clean water.

Some steps that can be taken to prevent the disease by controlling the breeding of mosquitoes

- Keep the surroundings and inside of the house clean
- Cut empty king coconuts to small pieces so that no water gets collected.
- Empty cans, coconut shells, empty pots etc. should be crushed or buried under soil.
- Water in the flower vases and ant-traps must be changed frequently or a little salt added to this water.
- Tyres kept on the roof of houses should be filled with sand or holes made in them, so that no water gets collected.



- Remove leaves collected on roofs and gutters.



Fig : 11.3

Malaria

Symptoms of malaria


Fever in the night, shivering, vomiting etc. *Anopheles* mosquito that spreads malaria, breeds in slow flowing water or in places where water gets collected, the bottom of rivers, between stones and specially in neglected mines. During drought mosquitoes breed in places like these.

Steps to be taken to prevent malaria

- Keep all windows and doors closed in your house in the evening.
- Use mosquito nets.
- Before you enter an area where malaria is, use medicine that is recommended by a doctor.
- Destroy breeding places.

Japanese Encephalitis

The disease spreading mosquitoes breed in paddy fields and in such places where water gets collected. You can get rid of these mosquitoes by draining the water in paddy fields once a week or by rearing fish which feed on larvae of the mosquito.

Pig  Mosquitoe  Man

Immunisation against Japanese encephalitis is very essential

Aren't these diseases challenges for you ? By contributing yourself to stop the breeding of the mosquito you will be able to face the challenges and protect yourself against the diseases. Remember that the dengue mosquito comes out only during the day time.

With your class teacher's permission get all the children in the class and clean the school garden and destroy places where mosquitoes breed.

The messages you can convey to the community

- Close the pits where water gets collected.
- Allow stagnant water to drain off.
- Have fish in ponds, to feed on the larvae of the mosquito.
- Remove any container in which water could be collected.

Leptospirosis

This is a bacterial infection, transmitted by rat's urine. This bacteria enters our body through the skin and mucosal membrane. Rats urine with the germ is found in paddy fields and muddy places. People who work in the fields are more liable to get the infection if they have a wound on the skin. Even in urban areas you may get the infection in flower beds, drains and so on.

Symptoms

- High fever
- Red and yellow discolouration of eyes.
- Reduced urine out put.

For Leptospirosis, remember that immediate treatment is necessary

Worm Diseases

The types of worms that commonly affect children are -

- Thread worm
- Round worm
- Hook worm
- Whip worm

Round worms

They live in our small intestines. Lay a large number of eggs daily. The eggs pass out with stools (feaces). Eggs can exist in the soil for a long time. These eggs enter our body with food and water.

Hook worm

They are attached to the walls of the intestine suck blood. This cause loss of blood in the infected person. Eggs pass with feaces and get into the soil and develop into larvae. The larvae penetrate the skin of the foot of people who walk bare - footed.

How worm eggs get into our body

When, infected children pass feaces in an open place, without using a latrine, eggs get into the soil and enter our digestive system through the mouth with the unhygenic food we consume.

Now you may be able to understand the picture which show how worms' eggs get into one's body.

When do eggs enter to our body?

- When children play with soil and suck fingers, eggs enter the stomach through the mouth.
- By eating fruits, vegetables without washing.
- Eggs may wash away by the rain water and enter rivers, open wells.
- By drinking this water worm-eggs may enter the body.
- Larvae of the hook worm can pierce the skin of the sole and get into the body.
- Flies can bring eggs in to our food.



Fig : 11.4

How to prevent

- Drink boiled and cooled water.
- Keep the children's finger nails short and clean.
- Wash hands with soap and water after using the latrine and before taking meals.
- To prevent from hook worm, have foot wear when walking.

Worm diseases may cause malnutrition among children

Good health habits will help you to avoid these diseases.

Diseases spread by contact

- Scabies - small popules, Ictony mainly in finger webs and all over body.
- Pytrosis - Whitish plaques/ rash on skin
- Leprosy - Whitish plaques/rash with no impaired sensation.

AIDS

This is a viral infection. No treatment. Cannot be cured. This virus is Human Immunodeficiency Virus. (HIV). If this virus get into a person, It enters the blood system and fights with white- blood cells. Then the natural immunity of that person will be destroyed.

How dose this HIV transmit from one person to another,

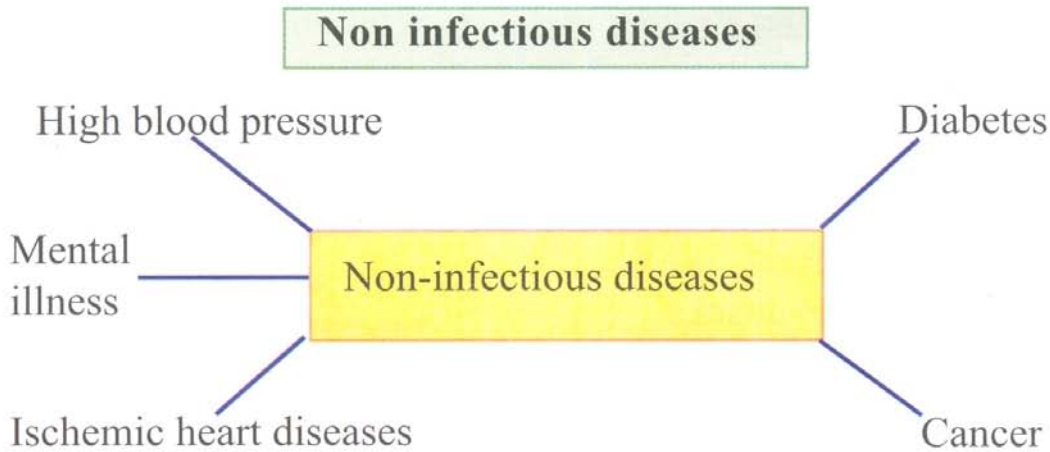
- Unprotected sex
- Not using disinfected needles and razors.
- By transfusion of infected blood.
- From infected mother to the baby.

The HIV will not transmit to another person by using infected person's cups, plates, towels and toilet, etc. HIV will not transmit by living with an infected person or working with an infected person

What are the benefits you get by preventing diseases.

- Can lead a healthy life.
- Education will be successful.
- Happy family life.
- Avoid unnecessary expenses.

As a school child you can convey these messages about infectious diseases to your family and to the community.



What are the main reasons for the cause of diseases.

- Food pattern
- Less exercise
- Using liquor
- Over weight
- Smoking
- Mental stress
- Inheritance
- Breaking rest

High Blood Pressure

What is it?

Blood Pressure in arteries going beyond the age appropriate levels.

What are the complications :-

- Heart diseases
- Strokes
- Renal Impairment

How to control :-

- Weight reduction
- Low fat diets
- Consuming more vegetable and fruit
- Low salt diet
- Increase exercises
- Reduce mental stress
- Avoid smoking/ liquor
- Oral medications

Ischemic Heart Disease

What is it?

Reduction of blood supply to heart muscles due to narrowed coronary arteries.

What are the complications :-

- Heart attacks
- Heart failure
- Strokes

How to control :-

- Control of High Blood Pressure
- Reducing cholesterol level by increasing exercises and reducing cholesterol containing food.
- Avoid smoking
- Oral medications.

Food rich in Cholesterol

- egg yolk, beef, pork, cheese
- butter, avocado, peanut, cashewnut

Eat more fibre rich food

Red rice, green gram, soya, gram, green leaves, yellow vegetables and fruits are good for your health. Instant food is very harmful to your health. Use home prepared food. It is good for health and saves money.

Cancer and Thalasemia patients are increasing in number. Thalasemia is an inherited disease. Haemoglobin percentage goes down in Thalasemia patients. Haemoglobin in the red blood cells comes down as a result of marriages between blood relations. The offspring gets the disease. If blood transfusion is not done, Thalasemia becomes a fatal disease.

Diabetes Mellitus

Diabetes is the most common non communicable disease which has a significant effect on the community.

Rising of Blood sugar levels more than normal level is the main feature of this disease.

If the fasting Blood Sugar Levels;

- Under 110mg/dl- normal blood sugar
- Between 110-126mg/dl - Impaired glucose tolerance
- Over 126mg/dl - diabetes disease

As you know Insulin is the main hormone which control Blood Sugar Level. It is produced by pancreas.

Why your Blood Sugar Level rises?

- No Insulin production from pancreas.
- Reduced Insulin production.
- Resistance for Insulin action at cellular level.

What are the common symptoms of Diabetes?

- Excessive thirsty
- Increase frequency
- Necturia
- Weight loss
- Impaired wound healing
- Frequent urinary tract infections
- Numbness of both feet and arms

How to prevent?

1. Maintain optimum BMI (Body Mass Index)
2. Healthy food Habit
 - Avoid fast food
 - Avoid high sugar and high fat diet
 - Consume a lot of fruits and vegetables

3. Adequate exercises
4. If your FBS (Fasting Blood Sugar) is within impaired glucose tolerance ranges or if you have a family history or if you had high glucose level during pregnancy, it is advisable to have a diet control.

What are the main controlling strategies of the disease

- Diet control and increase exercises
- Oral hypoglycemic drugs
- Injecting insulin hormone

What are the main complications of the disease

- Eye problems eg:- Cataract
- Neurophoathy (Impaired of nervous system)
- Neurophoathy (Impaired kidney)
- Increasing risk of heart attacks
- Increasing risk of strokes
- Impaired wound healing

What are the main non-suitable foods

- Flour and flour products
- Sugar
- Jaggery (any kind)
- Jelly/Jam/Cordial
- Date
- Samba rice/ white raw rice
- Cake, oil cake, dodol etc.

Don't be afraid of the disease

Although Diabetes is a non curable disease, by identify the disease early and controlling the blood Sugar level adequately, you can have a normal life.

Do you know the fact that one of the most prestigious Pakistan fast bowler was a diabetes even before starting his carrier.