

# **NIOS lesson adaptation project**

**By EMBRACE Volunteers**

(A community initiative of Harchan Foundation Trust)

## **Chapter 7**

# **HEALTH**

(Printable Version)

- **Simplified Lesson**
- **Previous Year Questions with Answers**
- **Terminal Questions**

This project is aimed at supporting children with different needs. Information provided is adapted to the best of knowledge by the volunteers. For complete information please refer to the NIOS resources in <https://www.nios.ac.in/online-course-material/secondary-courses.aspx>.

## LESSON-7

### HEALTH

Good health of an individual is important in order to ensure happiness and ability to work.

Health: State of complete physical, mental and social well being and not merely the absence of disease.

#### Personal Health

The three different dimensions of health together are commonly referred to as health triangle.



#### **Signs of good health:**

- You are energetic and alert.
- Having normal height and weight according to the age.
- Having bright and shiny eyes.
- Have clean and clear skin.
- Have normally growing hair normal color and texture.
- Have odour less breath.
- Have good appetite and sound sleep.

#### **Signs of good mental health:**

- ✓ Control over you emotions.
- ✓ Balanced feelings, desires, ambitions and ideas.
- ✓ Ability to accept realities of life and face them.
- ✓ Confidence in your abilities.
- ✓ Ability to cope up with day to day stress of life.
- ✓ Helpful attitude towards others.
- ✓ Ability to seek help when needed.

#### **Signs of good social health:**

- ☐ Have positive attitude towards life.
- ☐ Get along well with others.

- ☐ Have a pleasant personality.
- ☐ Fulfil responsibilities and duties towards others.
- ☐ Have healthy interpersonal relationships.
- ☐ Able to accept disagreement positively.

#### **Factors affecting personal health:**

- ✓ Balanced diet.
- ✓ Personal hygiene
- ✓ Domestic hygiene
- ✓ Food hygiene
- ✓ Regular sleep and relaxation.
- ✓ Avoid smoking alcohol and drugs.

#### **Balanced Diet:**

- Maintaining correct proportions of nutrients. (Carbohydrates, fats, proteins, vitamins, etc.)
- The energy requirement of teenage boy is 2400 to 2600 calories.
- The energy requirement of teenage girl is 2050 calories

#### **Personal hygiene:**

- ✓ Brush your teeth.
- ✓ Take bath daily and wear clean clothes.
- ✓ Eat nutritious food.
- ✓ Have regular eating habits.
- ✓ Regular exercise
- ✓ Regular toilet habits.
- ✓ Washing hands before eating.
- ✓ Washing hair, cleaning eyes , ears and nails.

#### **Domestic hygiene:**

- Dusting and mopping of house.
- Disposal of garbage and waste material

#### **Food hygiene:**

- ✓ Wash fruits and vegetables.
- ✓ Clean water should be used for cooking drinking and wash utensils.
- ✓ Food should be prepared in clean kitchen with clean manner.
- ✓ Use high temperature while cooking to kill germs.
- ✓ Cooked food should be covered and stored in cool and dry place.
- ✓ Milk should be placed in refrigerator and should be boiled before using.

#### **Regular sleep and relaxation:**

Good to have 6 to 7 hours of sleep and to leave stress free.

#### **Avoid smoking alcohol and drugs:**

Smoking and alcohol are injurious to health we should avoid them to stay healthy.

### **Community health:**

It is practice of preventing disease and promoting health of a population through the organized efforts of society, public and private organizations, communities and individuals.

It focuses on preventing disease rather than treatment.

### **Activities and programmes to maintain good health:**

- To maintain cleanliness of the villages, towns and cities to avoid multiplying of disease causing agents.

#### Methods to keep clean

- Garbage disposal.
  - Supply of clean drinking water.
  - Waste collection from localities thereby checking the spread of disease causing vectors.
- Ensure standards in food stores, meat and milk outlets are strictly followed.
  - Organize outreach services for health promotion and prevention of diseases.
    - Immunization program
    - Awareness program on malaria, AIDS, polio, leprosy and hepatitis B.
    - Organize mid day meal program to provide adequate nourishment for growing children.
    - Undertake various health program like eradication of TB and Malaria. National immunization program and pulse polio program.
  - Set up hospital and dispensaries to provide medical facilities to general public.
  - Community Health includes environmental cleanliness. We can contribute by using proper bins for disposing waste.

### **Garbage bins:**

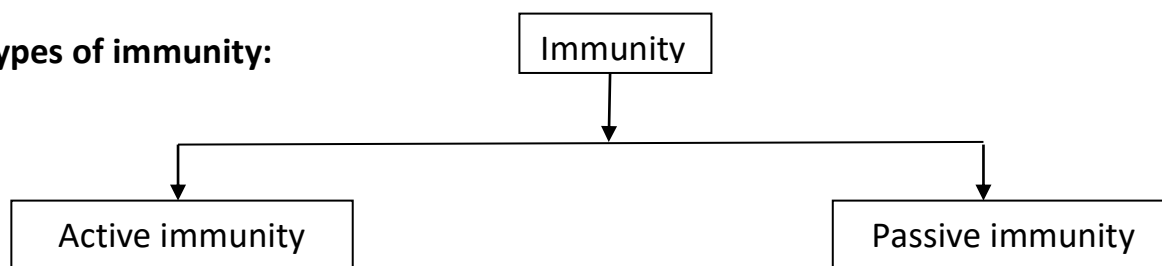
<b>BIODEGRADABLE</b>	<b>NON BIO DEGRADABLE</b>
Can be broken down	Cannot be broken down
Originates from plants and animals and broken down by other living organisms.	Originates from non living things.
E.g. – Green waste, Food waste, Human waste, Sewage	E.g. – Plastic, e- waste.

## Immunization

### **IMMUNITY:**

Ability of body to protect itself against the foreign agents including the disease causing organism is called immunity.

### **Types of immunity:**



### **Difference between natural and acquired immunity:**

NATURAL IMMUNITY	ACQUIRED IMMUNITY
1) Present from the birth	1) It develops during lifetime of an individual.
2) Provides protection against the entry of any foreign agent into our body.	2) Antibodies are produced against the antigens.
3) E.g.- Skin, Mucus membrane, Hydrochloric Acid in the stomach, Phagocytes in blood.	3) E.g.- Vaccines, Through exposure to antigen. (from any previous infection)

Immunization schedule:

## **Current National Immunization Schedule**

Age	Vaccine
At Birth	BCG, HB1
2 Month	OPV1, DTP-HB1
4 Month	OPV2, DTP-HB2
6 Month	OPV3, DTP-HB3
9 Month	Measles ---- > MMR1*
18 Month	OPV4, DTP4, JE1, JE2#
2½ Year	JE3
4 Year	OPV5, DTP5
7 Year (School gr.1)	MMR2
12 Year (School gr.6)	dT
Pregnant woman	dT3 (depend on immunization history)

\* Started in 2010 ; # = 1 month apart from JE1



## **PREVIOUS YEARS QUESTIONS**

### **One mark questions:**

- 1. At what age is BCG vaccine is given**
  - a) At birth
  - b) 6week
  - c) 10 weeks.
  - d) 9-12 months
- 2. Anemia is very common in Indian women due to deficiency of**
  - a) Iodine
  - b) Iron
  - c) Protein
  - d) Calcium.
- 3. Vaccination for BCG prevents**
  - a) Tuberculosis
  - b) Tetanus
  - c) Typhoid
  - d)Tonsillitis
- 4. If the antibodies are less in your body**
  - a) You will get stronger.
  - b) Your immunity will be good
  - c) Your ability to fight disease will be less
  - d) You will not become sick.
- 5. Day of the week chosen for pulse polio program is**
  - a)Tuesday
  - b) Thursday
  - c) Sunday
  - d) Monday
- 6. Vaccine that protects us against TB is**
  - a)Tetanus Toxoid
  - b) D.P.T
  - c) BCG
  - d) MMR

### **Two mark question:**

**1. A community health Mela is being organized in your locality. Suggest any two activities that can be undertaken which can help to prevent diseases in your neighborhood.**

Ans:

- ✓ Garbage disposal.

- ✓ Supply of clean drinking water.
- ✓ Ensure standards in food stores, meat and milk outlets are strictly followed.
- ✓ Set up hospital and dispensaries to provide medical facilities to general public

**2. What is acquired immunity and in which two ways can it be acquired?**

Ans: Acquired immunity is the immunity which is developed during the lifetime of an individual.

It can be acquired through vaccines and also getting exposed to antigen.

**3. Define health. State two signs of good physical health.**

Ans: State of complete physical, mental and social well being and not merely the absence of disease.

Signs of good physical health:

- Having bright and shiny eyes.
- Have clean and clear skin.
- Have normally growing hair, normal color and texture.
- Have odour less breath.

**4. Mention any four daily activities that can keep us healthy?**

- ✓ Eat nutritious food.
- ✓ Have regular eating habits.
- ✓ Regular exercise
- ✓ Regular toilet habits.

**5. Differentiate between natural immunity and acquired immunity?**

NATURAL IMMUNITY	ACQUIRED IMMUNITY
1) Present from the birth	1) It develops during lifetime of an individual.
2) Provides protection against the entry of any foreign agent into our body.	2) Antibodies are produced against the antigens.
3) E.g:- Skin, Mucus membrane, Hydrochloric Acid in the stomach, Phagocytes in blood.	3) E.g.:- Vaccines, Through exposure to antigen. (from any previous infection)

## **Four mark questions:**

**1. Explain in brief the various activities and programmes undertaken by government to ensure good health for the people?/What measure can your local government take to maintain good health of the people.**

- To maintain cleanliness of the villages, towns and cities to avoid multiplying of disease causing agents.

### **Methods to keep clean**

- Garbage disposal.
- Supply of clean drinking water.
- Waste collection from localities thereby checking the spread of disease causing vectors.
- Ensure standards in food stores, meat and milk outlets are strictly followed.
- Organize outreach services for health promotion and prevention of diseases.
  - Immunization program
  - Awareness program on malaria, AIDS, polio, leprosy and hepatitis B.
  - Organize mid day meal program to provide adequate nourishment for growing children.
  - Undertake various health program like eradication of TB and Malaria. National immunization program and pulse polio program.
  - Set up hospitals and dispensaries to provide medical facilities to general public.

**2. Explain how does vaccination helps us to acquire immunity?**

Vaccines are inactivated pathogens that functions as antigens or foreign agents.

When vaccines are introduced in the body they activate the immune system against the specific pathogen.

If the pathogen infects in future, the immune system is ready to provide protection.

## **TERMINAL QUESTIONS**

**1). What role does vaccination play in control of diseases? Explain.**

Vaccines are inactivated pathogens that functions as antigens or foreign agents.

When vaccines are introduced in the body they activate the immune system against the specific pathogen.



If the pathogen infects in future, the immune system is ready to provide protection.

**2). Define health according to WHO?**

Health is a state of complete physical, mental and social well being and not merely the absence of disease. Thus health means proper functioning of body and the mind.

**3). How is natural immunity different from acquired immunity?**

Natural immunity is present from the time of birth and provides general protection against the entry of foreign agents into the body.

Some of the components of natural immunity are skin, the mucous membrane hydrochloric acid in the stomach.

Acquired immunity develops during one's life time.

It works on the simple principle of producing antibodies in response to antigens.

**4). List at least four steps essential to remain healthy?**

- i) **Balanced Diet:** A diet which contains carbohydrates proteins, fats, vitamins, minerals and fibres in correct proportion to meet the nutritional requirements of a person.
- ii) **Personal Hygiene:** To keep yourself free from diseases and to have good health you need to practice hygiene.
- iii) **Domestic Hygiene:** Wipe dust and mop our house to keep it clean and free from dirt, flies and germs.
- iv) **Food Hygiene:** Fruits and vegetables should be washed in clean water before cooking and consumption.

**5. How are the personal health and community health is related? Explain with the help of example.**

- Maintain cleanliness of villages, towns, and cities so that disease causing agents do not multiply.  
It includes garbage disposal, supply of clean drinking water, waste collection etc from the localities.
- Ensure that standards in food stores, meat and milk outlets are strictly followed.
- Keeping our neighborhood clean influences both personal health and community health.

**6. What precautions you will take while storing food to prevent it from becoming unhealthy?**

- Cooked food should be eaten fresh or covered and stored in cool dry and insect proof place.
- Milk should be stored either in refrigerator or if kept outside, it should be boiled again before use to make it germ free.