

# **NCERT Solutions for Class 9 Science Chapter 13**

## **Why Do We Fall Ill?**

**1. State any two conditions essential for good health.**

**Solution:**

Two conditions essential for good health are:

1. State of physical, mental and social well-being.
2. Better surroundings or environment.

**2. State any two conditions essential for being free of disease.**

**Solution:**

Two conditions essential for being free of disease are:

1. Personal and domestic hygiene.
2. Clean environment and surroundings.

**3. Are the answers to the above questions necessarily the same or different? Why?**

**Solution:**

The answers to the above questions are different because a person may be free of disease but not be good mentally, socially and economically.

### **In-Text Questions 13.2.5**

**1. List any three reasons why you would think that you are sick and ought to see a doctor. If only one of these symptoms were present, would you still go to the doctor? Why or why not?**

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## Why Do We Fall Ill?

### **Solution:**

1. Headache
2. Cough
3. Loose motions

These indicate that there may be a disease, but they don't indicate what the disease is. Hence, one would still visit the doctor for treatment and to know the cause of the above symptoms.

Even a single symptom is present one needs to consult the doctor to get proper treatment.

**2. In which of the following case do you think the long-term effects on your health are likely to be most unpleasant?**

- if you get jaundice
- if you get lice
- if you get acne. Why?

### **Solution:**

Lice and acne will not cause any long-term effects on the human body. However, the effects of jaundice will be long-term and most unpleasant.

Jaundice is a chronic disease that impacts the whole body and takes a longer time to be cured completely.

## **In-Text Questions 13.3.5**

**1. Why are we normally advised to take bland and nourishing food when we are sick?**

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## **Why Do We Fall Ill?**

### **Solution:**

During sickness the body becomes weak, and the digestive system does not work properly. So easily digested food needs to be taken during this period as well as food rich in nutrients are advised to take. The immunity of the body decreases during disease or infection. Hence, bland and nourishing food is given for speedy recovery.

### **2. What are the different means by which infectious diseases are spread?**

#### **Solution:**

Infectious diseases are generally spread through the following modes – Water, air, vector such as mosquito, sexual contact, physical contact with the affected, or by using affected person's clothes, bedding, utensils, etc.

### **3. What precautions can you take in your school to reduce the incidence of infectious diseases?**

#### **Solution:**

Some of the precautions that we can take in our school to reduce the incidence of infectious diseases are :

1. Drinking clean and hygienic water.
2. Preventing the accumulation of water in surroundings.
3. Keeping the toilet neat and clean.
4. Avoiding consumption of uncovered food and other eatables.
5. Taking bath daily
6. Have a balanced diet.
7. Provide a clean environment which prevents the breeding of mosquitoes. This prevents the spread of vector-borne diseases.

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### 4. What is immunisation?

#### Solution:

The method to boost our immune system with the help of vaccines that help the body to fight against infectious diseases is called immunisation.

### 5. What are the immunisation programs available at the nearest health center in your locality? Which of these diseases are the major health problems in your area?

#### Solution:

The following immunization programme is available at the nearest health centre in our locality

1. Immunization for infants—DPT, BCG, polio, measles and MMR.
2. For children—Typhoid, TT, DT, small pox and TAB.
3. For pregnant woman— TT and hepatitis-B.

The diseases like typhoid, polio, measles are the major health problems in our locality.

## Exercise Questions

1. How many times did you fall ill in the last one year? What were the illnesses? (a). Think of one change you could make in your habits in order to avoid any of/most of the above illnesses.

(b). Think of one change you would wish for in your surroundings in order to avoid any of/most of the above illnesses.

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### **Solution:**

I fell ill twice in the last year. I suffered from diarrhoea first and then dengue fever.

(a) The changes made by me in my habits after suffering from these diseases are –

(i) I will always drink purified and clean water and wash my hands before eating any food item.

(ii) I will live in a clean environment where disease spreading vectors will not multiply.

Example of multiplying vectors are mosquitoes.

(b) One change I would wish for in our surroundings in order to have a healthy society is by making pure drinking water available for the people. Consuming impure water is the root cause of many infectious diseases.

**2. A doctor/nurse/health-worker is exposed to more sick people than others in the community. Find out how she/he avoids getting sick herself/himself.**

### **Solution:**

Some important precautions that need to be taken by the doctor/nurse/health-worker while treating people who are sicker than others in the community are –

(a). When in contact with a diseased person not to forget to wear a mask.

(b). Drinking purified water.

(c). Not neglecting cleanliness and personal hygiene.

(d). Keeping themselves covered appropriately when moving in an infected region

(e). Eating nutritious food and maintaining a healthy diet.

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**3. Conduct a survey in your neighbourhood to find out what the three most common diseases are. Suggest three steps that could be taken by your local authorities to bring down the incidence of these diseases.**

**Solution:**

The following three are the most common diseases in any neighbourhood:

Cold and cough, loose motions, and malaria.

Some of the preventive measures that can be taken are:

- (a). By drinking fresh, uncontaminated, and clean water.
- (b). By maintaining hygienic sanitary conditions.
- (c). By educating people about various preventive measures with the help of posters, and pamphlets.

## Exercise Questions 188

**4. A baby is not able to tell her/his caretakers that she/he is sick. What would help us to find out**

- (a) that the baby is sick?**
- (b) what is the sickness?**

**Solution:**

(a). It can be found out by observing the behavioral changes of the child such as:

- Improper food intake
- Constant crying
- Mood changes frequently

(b). The sickness can be determined with the help of symptoms or indications shown by the child. The symptoms could be loose motion, vomiting, paleness in body and fever.

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**5. Under which of the following conditions is a person most likely to fall sick?**

**(a) when she is recovering from malaria.**

**(b) when she has recovered from malaria and is taking care of someone suffering from chicken-pox.**

**(c) when she is on a four-day fast after recovering from malaria and is taking care of someone suffering from chicken-pox. Why?**

**Solution:**

A person is more likely to fall sick when she is on a four day fast after recovering from malaria and is taking care of someone who is suffering from the chicken- pox. This is because she is fasting during recovery, and her immune system is so weak that it is not able to protect its own body from any foreign infection. At this stage, if she is taking care of someone suffering from chicken -pox, then she has more chances of getting infected with the chicken-pox virus and will get sick again with this disease.

**6. Under which of the following conditions are you most likely to fall sick?**

**(a) when you are taking examinations.**

**(b) when you have travelled by bus and train for two days.**

**(c) when your friend is suffering from measles. Why?**

**Solution:**

A person is more likely to fall sick when his/her friend is suffering from measles. This is because measles is highly contagious and can easily spread through the air. This highly contagious virus is spread by coughing and sneezing via close personal contact or direct contact with body secretions. Hence, if a friend is suffering from measles, it is advised to stay away from him/ her to prevent ourselves from getting infected.