

## ❖ Harmful Microorganisms

### Some Definitions to Remember:

**Communicable Diseases:** These are microbial diseases (diseases caused by microbes) that spread from one infected person to a healthy person through air, water, food or physical contact, such as cholera, chicken pox, common cold and tuberculosis.

**Carriers:** Insects and animals that carry disease-causing microbes and transfer them from one place to other are called carriers or vectors, such as house flies and mosquitoes.

### How do houseflies transfer pathogens?



A housefly may sit on the garbage and animal excreta and the pathogens stick to their body. When they sit on uncovered food, these pathogens get transferred to the food. When someone eats this contaminated food, he or she may fall sick.

To avoid this, we must keep the food covered.

**Name the carriers of:**

Malaria



Female Anopheles mosquito (carries the parasite of malaria called *Plasmodium*)

## Dengue



Female Aedes mosquito (carries the dengue virus called Flavivirus)

## Common Diseases and their Modes of Transmission



## How to prevent diseases that spread through air or contact?

To prevent diseases that spread through the air, keep the patient in complete isolation and keep his or her personal belongings away from

others. Vaccination at the suitable age can prevent the onset of tuberculosis, chicken pox, polio, and measles.

### **How to prevent diseases that spread through water or food?**

To prevent the spread of polio, cholera, typhoid and hepatitis A, vaccination is effective. One should also maintain personal hygiene and good sanitary habits and drink boiled drinking water.

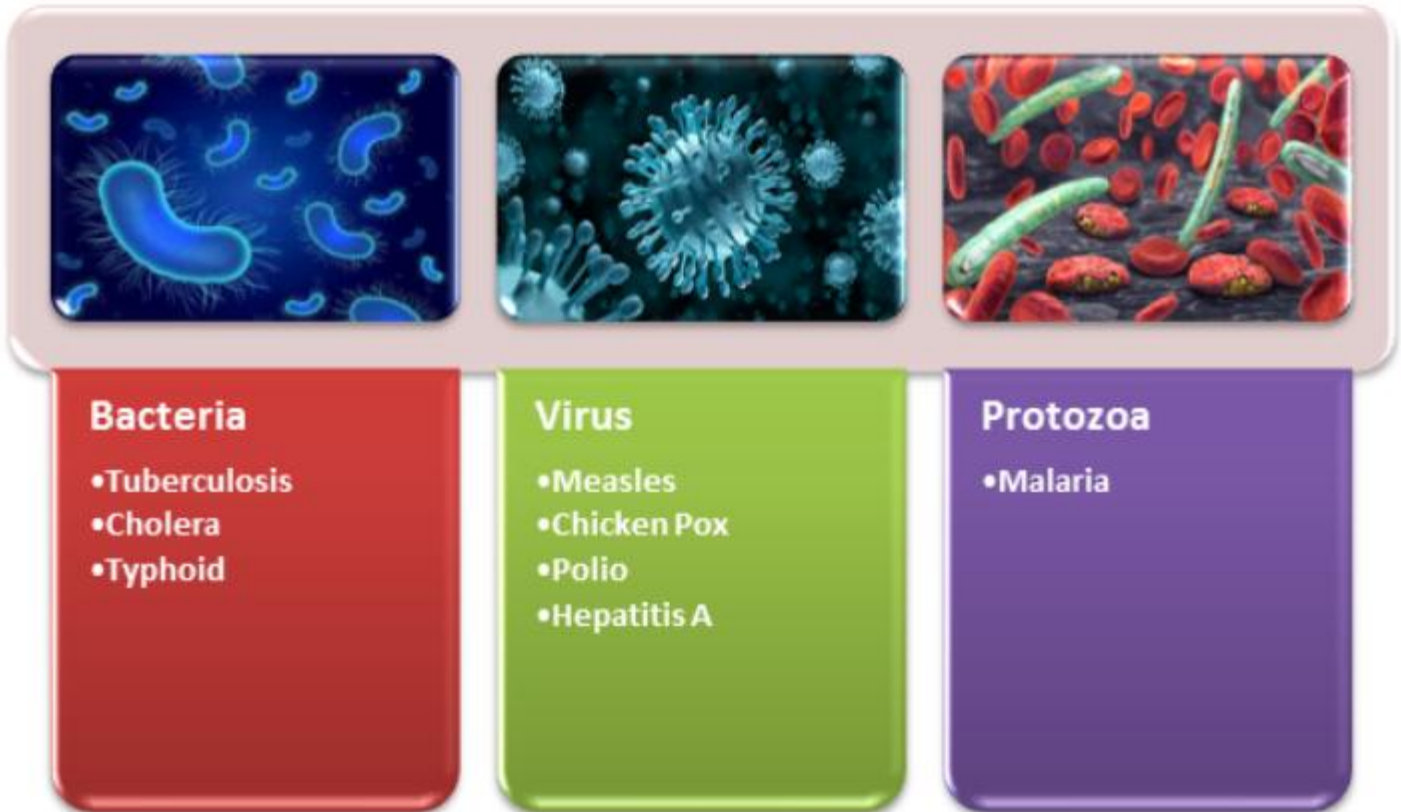
One should also eat properly cooked food to avoid diseases like cholera.

### **How to prevent diseases that spread through mosquitoes?**

We can stop the spreading of diseases caused by mosquitoes (such as malaria and dengue) by not allowing the mosquitoes to breed. We should keep our surroundings clean and dry, and not let water collect anywhere - in coolers, tyres, and flower pots etc.

We should also spray insecticides and use mosquito repellents and mosquito nets to protect ourselves from mosquito bites.

### **Common Diseases and the Microorganisms that cause them**



### **Diseases Caused by Microorganisms in Animals**

**Anthrax:** A dangerous disease that affects human and cattle is caused by a bacterium called *Bacillus Anthracis*.

**Foot and mouth disease in Cattle:** It is caused by a virus called **Foot-and-mouth-disease Virus** (FMDV) or Picornavirus.

❖ **Next Topic: Diseases Caused by Microorganisms in Plants**