

TOPIC CONTINUED ....

**WE MAY TREAT AN INFECTIOUS DISEASE IN TWO WAYS:**

- By killing the infectious agents.
- By reducing the effects of the disease or reducing the symptoms.

**WE CAN REDUCE THE SYMPTOMS IN THE FOLLOWING WAYS:**

- By taking rest to conserve our energy so that our immune system can fight against the disease.
- By taking medicine to reduce the common symptoms such as fever or pain and hence reducing the disease.

**WE CAN KILL THE INFECTIOUS AGENTS IN OUR BODY IN THE FOLLOWING WAY:**

By taking medicines that can kill them such as antibiotics or antiviral medicines.

**ANTIBIOTICS AREN'T EFFECTIVE AGAINST VIRUSES?**

- Antibiotics commonly work by blocking the biochemical pathways that are important for bacteria.
- Thus these inhibit the growth of bacteria, hamper the metabolism and kill them.
- Antibiotics do not work on viruses because viruses do not use the biochemical path and use host cell machinery for making proteins.

**THE PRINCIPLES OF PREVENTION:**

**THERE ARE TWO WAYS TO PREVENT DISEASES:**

- Preventing exposure to these infectious agents:
- Waterborne diseases can be prevented by always having safe and pure drinking water.
- Airborne diseases can be prevented by avoiding overcrowded places in keeping the environment clean.
- Vector-borne diseases can be prevented by keeping our surroundings clean and

maintaining public hygiene.

- Strengthening the immune system so that if any infectious agents enter our body it can fight back.

This can be made possible by having healthy food.

### **WHAT IS THE IMMUNE SYSTEM?**

- The immune system is a network of cells, tissues and organs that work together in order to protect our body from diseases. We may consider the immune system as a defense system of our body.
- The immune system looks out and destroys the disease-causing germs in our body with the help of special cells called white blood cells. These cells are present in the blood and hence circulate throughout the body and monitor it.
- The germs or any foreign substance that enter our body are called Antigens. As the immune system recognizes these antigens, it releases antibodies which lock the antigens and then destroy them with the help of other cells.

### **THE ABILITY OF A BODY TO RESIST A DISEASE WITH THE HELP OF ANTIBODIES IS CALLED IMMUNITY.**

A SPECIFIC METHOD TO STRENGTHEN THE IMMUNE SYSTEM:

### **A SPECIFIC METHOD TO STRENGTHEN THE IMMUNE SYSTEM AND HENCE PREVENTING DISEASE IS VACCINATION.**

- Whenever our body is affected by a disease, our immune system not only fights against it but it also remembers how to respond when the same disease-causing microbes affect our body the next time.
- Similarly, vaccination contains an agent that is similar to the disease-causing agents (weak or killed microbes).
- As it enters our body, our immune system learns to fight against it and hence prevents us from actually getting infected when the actual disease-causing microbes enter our body.
- Today, vaccines are available for enhancing our immune system against various diseases such as polio, chicken pox and measles.

NOTE: THIS CONTENT HAS BEEN PREPARED FROM HOME.

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