

Chapter 11

WHY DO WE FALL ILL?

Prevention of disease:

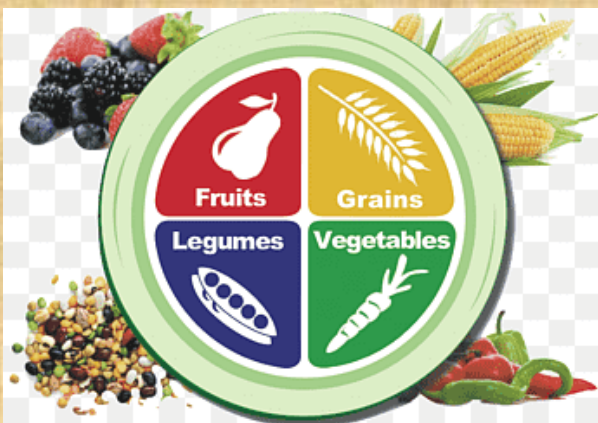
General method:

Immune system:

Immune system comprises of cells that specialize in killing the disease. These cells go into action each time infecting agents enter the body. They manage to kill the infection before it damages major proportion.

If the immune system is healthy and active, the no of infecting microbes can be controlled, which means the manifestation of disease will be minor. You might not always develop disease even if you are exposed to microbe, because the immune system will fight the microbe.

However, to have good immune system, you should be well nourished. Therefore, the second basic principle of prevention of infectious disease is to have sufficient nutrient rich food.



Immunisation:

It's the process of giving a vaccine to a person to protect them against a

particular disease.



Before 50 years ago, smallpox was an epidemic. People were afraid of going near the infected person. However, there was one group of people, who did not have this fear. These fearless people would provide nursing care for the victims of smallpox.

- Who are these fearless people?

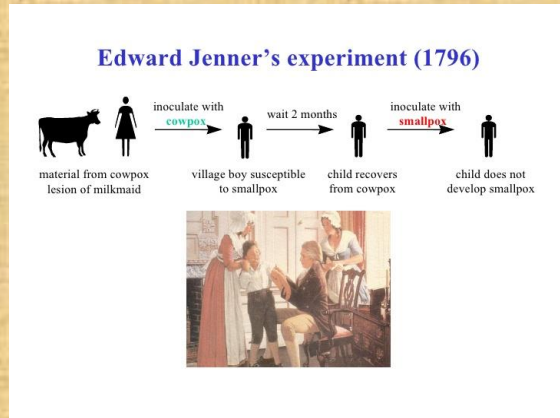
They were people who had smallpox earlier and survived it. If you had smallpox once, there would be no chance of suffering from it again.

So having the disease once, was a means of preventing the same disease again.

Two centuries ago, Edward Jenner realized the milkmaids who had cowpox, did not catch smallpox during the epidemics.



Jenner deliberately gave cowpox to people and found they were resistant to smallpox. This was because the smallpox virus is closely related to the cowpox virus.



It's from these roots, the word vaccination emerged. Cow in Latin is called vacca and cowpox is called vaccinia. Thus, the word vaccination came into origin.

Traditional Indian and Chinese medicinal systems sometimes deliberately rubbed the skin crust of smallpox victims into skin of health people, hoping that inducing a mild form of smallpox would create resistance against the disease.

- Why does this happen so?

First time infection:

This happens because when the immune system first recognize the infectious agent, it responds against it and then remembers it specifically.



Second time infection:

When the same infectious agent or its close relative infects, the immune system responds with even greater vigour and eliminates the infection faster.

Vaccination:

We can pool the immune system into a developing memory for a particular infection by putting something that mimics the microbe we want to vaccinate

against. This mimicking molecule doesn't cause any disease but would rather prevent any subsequent exposure to the infecting microbe from turning into actual disease.

Nowadays many such vaccines are available and they provide a disease-specific means of prevention.

Public Health Programme:

You might have been vaccinated during your childhood to protect yourself against various diseases like tetanus, diphtheria, measles, and polio all through the public health programme.



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It's our social responsibility to make sure that public health programme of childhood immunization is implemented in our locality.