

## Let us understand our immune system

Your immune system is the leader of the band of good health-a peripheral leader with your brain and mind being the central leaders.

Let us understand our immune system. It is an orchestra which keeps the health of our body going. Like the way we have our defence system of our country, your immune system has all type of leaders like majors, captains, soldiers as well as support system.

The immune system has two functions-

1. To prevent illness.
2. To recover illness when it strikes.

Like our defence system it has other intermediary jobs which finally end up in giving you a long healthy life by taking care of your body against diseases like diabetes, hypertension, stroke, cancer etc. The vitality of life will depend on the vitality of the Immune system.

The immune system can be divided into Innate and Acquired. Innate is the one which is present inside our body from birth, and the acquired is the one which we develop through the various infections and vaccines. Immune system has the greatest memory. Once you have one infection entering your body it will never allow it to come back again. It is also supposed to recognise self and not self cells perfectly. Any aberration in this can lead to a number of autoimmune diseases.

The immune system consist of

1. Thymus- which lies in the chest. It is big in children and almost disappears in old age. It controls the development of the whole immune system by its secretion called thymogen
2. Spleen
3. Tonsils-3 group
4. Lymph nodes
5. Appendix and payers patches
6. Bone marrow

Immune system works through the following mechanism

### Non specific mechanism

1. Physical barriers- skin and mucous membrane.
2. Mucous.
3. Cilia- hairy projections on the epithelial cells.
4. Phagocytes- cells that swallow microorganism.
5. Complement- proteins in the blood facilitating phagocytosis.
6. Lysozymes.

### Specific for a single organism

1. Antibodies-Ig G, Ig A, Ig M, Ig E, Ig D
2. Cell mediated immunity
  - B cells
  - T cells –Cytokines
    - i. Interleukins
    - ii. Interferons
    - iii. Tumour Necrosis factors

In short immune system is a very solid and very complex defence mechanism of our body.

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