

**In this lecture we will learn :** Components of immune system, Immune cells and their products.

**Components of immune system :** The organs of the immune system are positioned throughout the body. They are called lymphoid organs because they are home to lymphocytes, small white blood cells that are the key players in the immune system. Lymphoid organs of human body include:

1. **Adenoid:** Two glands located at the back of the nasal passage.
2. **Appendix:** A small tube that is connected to the large intestine.
3. **Blood vessels:** The arteries, veins, and capillaries through which blood flows.
4. **Bone marrow:** The soft, fatty tissue found in bone cavities. The bone marrow produces B-cells, natural killer cells, granulocytes and immature thymocytes in addition to red blood cells and platelets.
5. **Lymph nodes:** Small organs shaped like beans which are located throughout the body and connect via the lymphatic vessels.
6. **Lymphatic vessels.** A network of channels throughout the body that carries lymphocytes to the lymphoid organs and bloodstream.
7. Peyer's patches: Lymphoid tissue in the small intestine.
8. Spleen: A fist-sized organ located in the abdominal cavity. The spleen is the immunological filter of the body.
9. **Thymus:** Two lobes that join in front of the trachea behind the breast bone.
10. **Tonsils:** Two oval masses in the back of the throat.

**Immune cells and their products:**

The immune system hoards a huge arsenal of cells, not only lymphocytes but also cell-devouring phagocytes and their relatives. Human immune cells include:

1. Lymphocytes
2. Phagocytes
3. Granulocytes
4. Blood platelets
5. Dendritic cells