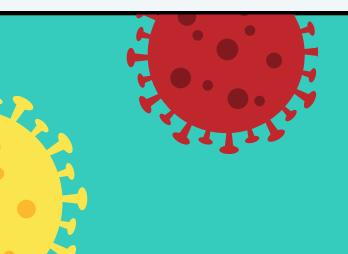


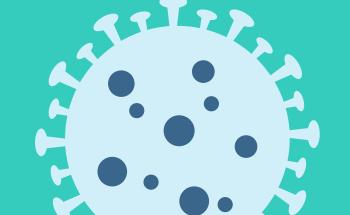
WHAT IS THE IMMUNE SYSTEM?

The immune system is a complex network of cells, tissues, organs, and proteins that protects the body from harmful substances, germs, and cell changes that could make you ill. It's made up of two systems that work together: the innate (general) immune system and the adaptive (specialized) immune system.

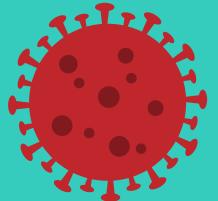






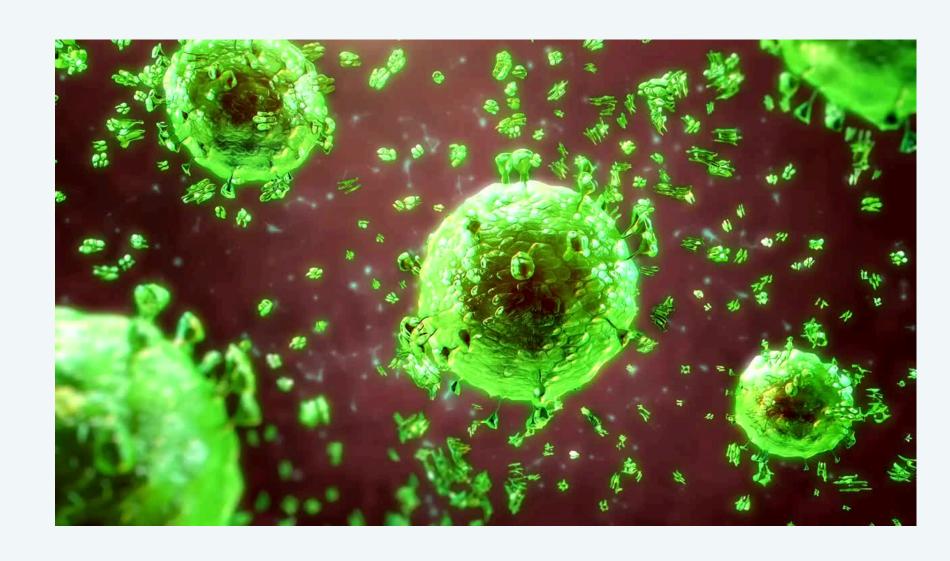




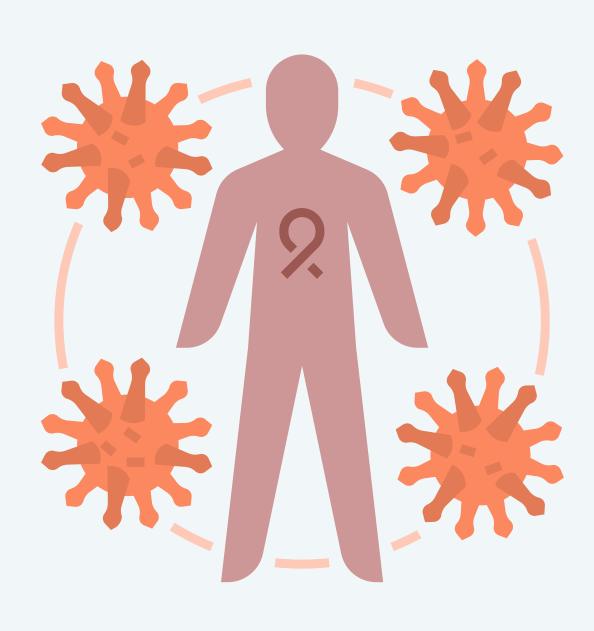


THE INNATE IMMUNE SYSTEM

The innate immune system is the body's first line of defense against foreign substances and germs, such as bacteria, viruses, fungi, and parasites. It's present at birth and lasts a person's entire life. The innate immune system is also known as the "non-specific" immune system because it responds in the same way to all germs and foreign substances.



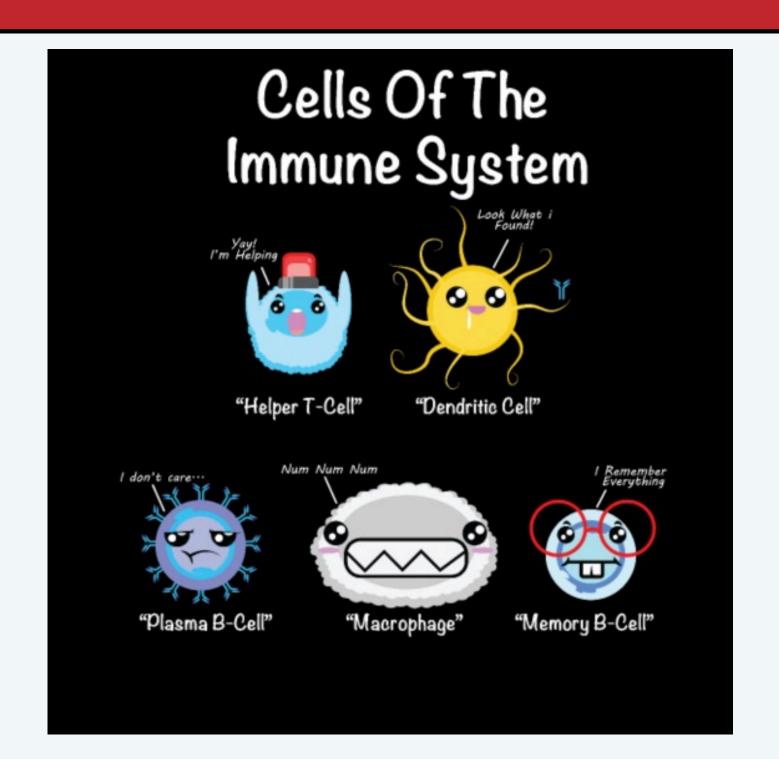
THE ADAPTIVE IMMUNE SYSTEM



Adaptive immunity involves specialized immune cells and antibodies that attack and destroy foreign invaders. These cells can also remember what the invaders look like and mount a new immune response in the future, preventing disease. Adaptive immune responses are highly specific to the pathogen that caused them and can provide longlasting protection. However, they can sometimes make mistakes and attack the body's own cells, which is known as an autoimmune disorder.

THE DIFFERENT TYPES OF CELLS IN THE IMMUNE SYSTEM

- Helper T cell
- Dendritic cell
- Plasma B cell
- Macrophage
- Memory B cell
- Neutrophils
- NK cells

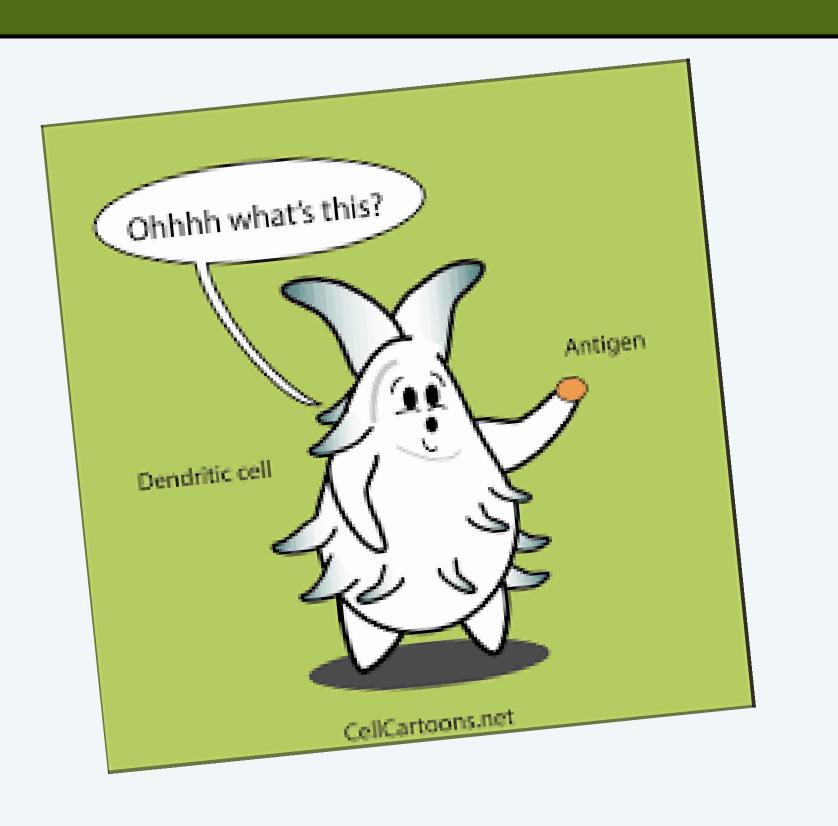


HELPER T-



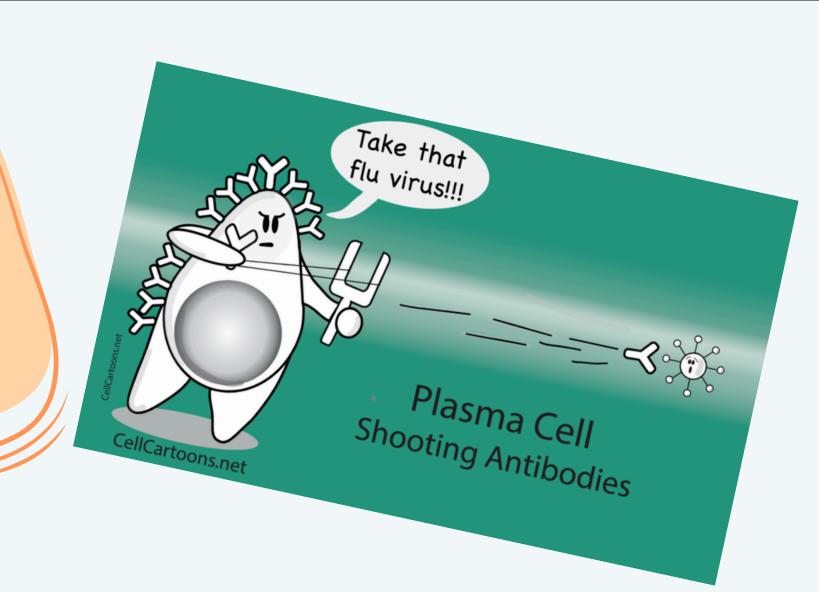
Helper T cells are arguably the most important cells in adaptive immunity, as they are required for almost all adaptive immune responses. They not only help activate B cells to secrete antibodies and macrophages to destroy ingested microbes, but they also help activate cytotoxic T cells to kill infected target cells.

DENDRITIE GELL

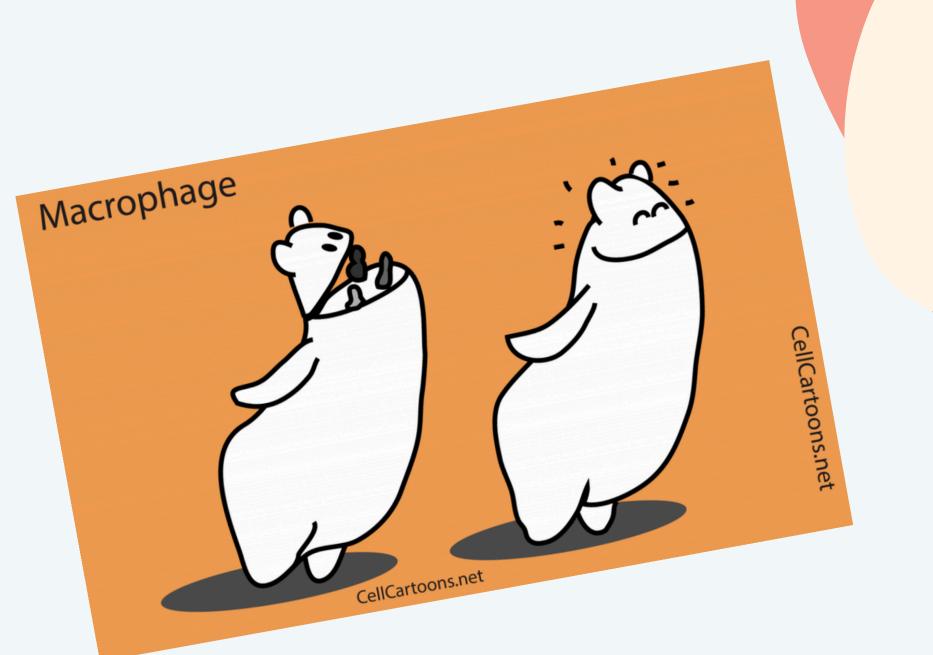


Dendritic cells (DCs) are a type of immune cell that help initiate immune responses by presenting antigens to other immune system cells. They are found in many parts of the body, including the skin, blood, and mucosal surfaces

plasma B cells, also known as plasma cells or plasmacytes, are a type of white blood cell that produce antibodies to help protect the body from infection and disease.

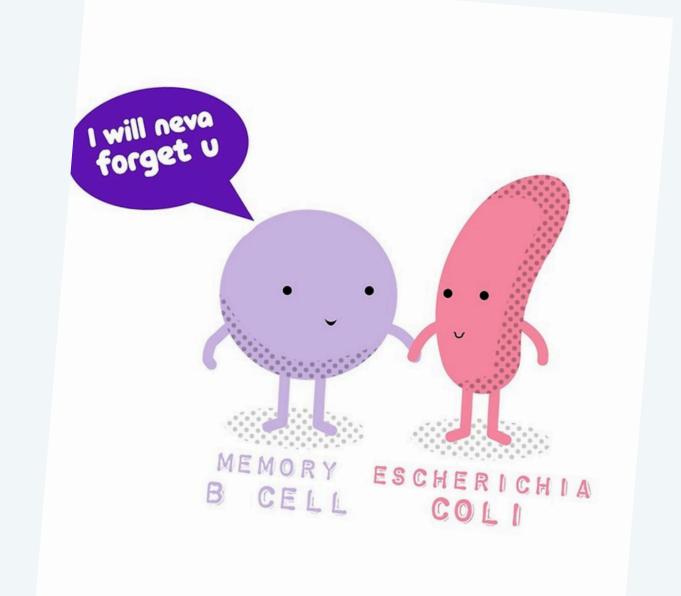


MACROPHAGES

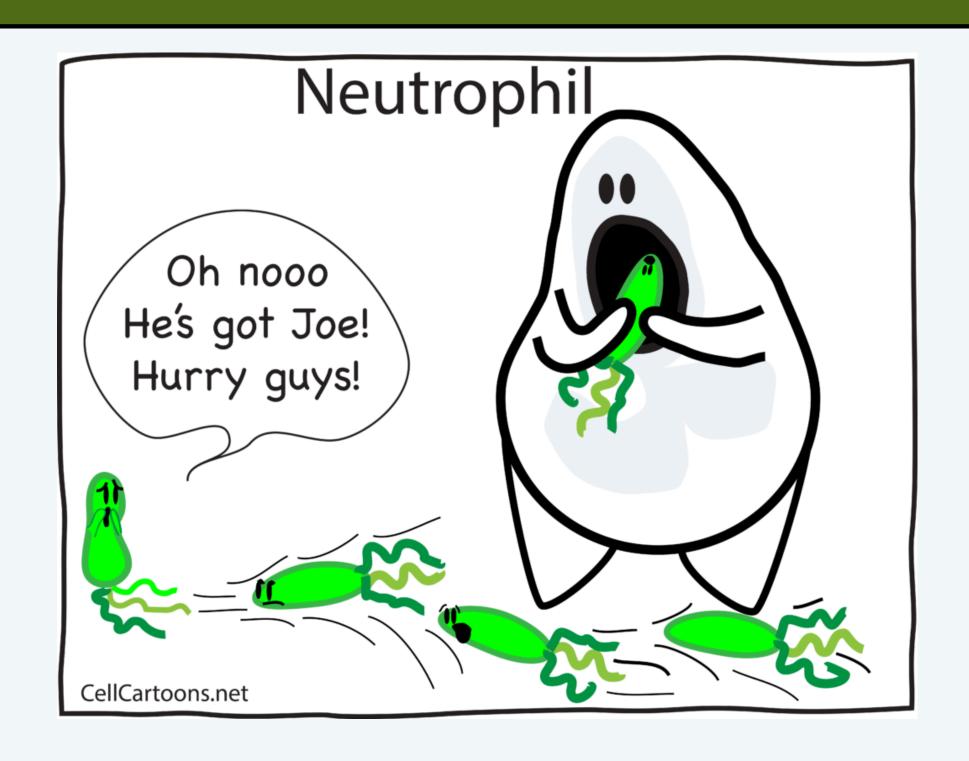


A type of white blood cell that surrounds and kills microorganisms, removes dead cells, and stimulates the action of other immune system cells

A memory B cell (MBC) is a white blood cell that remembers an antigen so the immune system can quickly identify and fight it again in the future.



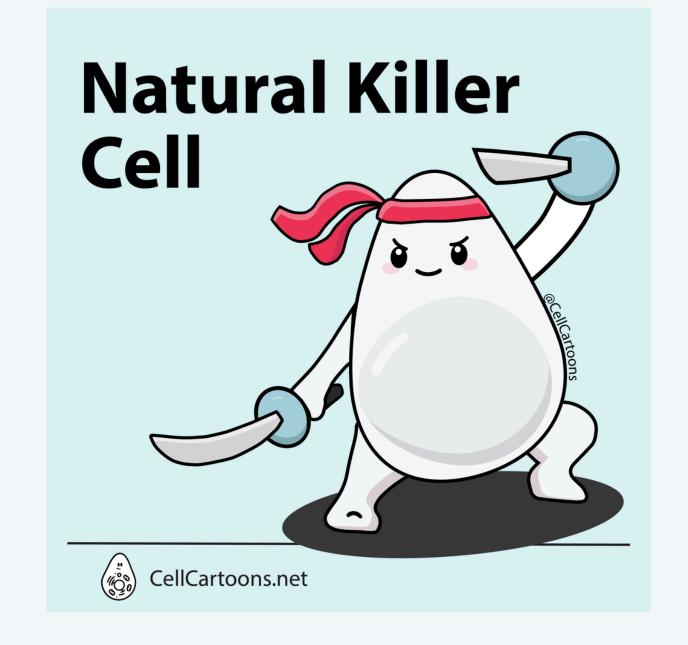
NEUTROPHILS



Neutrophils are a type of white blood cell (leukocytes) that act as your immune system's first line of defense.

NK CELLS

A type of immune cell that has granules (small particles) with enzymes that can kill tumor cells or cells infected with a virus.



LET'S WATCH THIS AWESOME VIDEO ABOUT THE IMMUNE SYSTEM!



