

What is our immune system?

Suitable from approx.
age 6+

This activity can be done with individuals or small groups and requires a facilitator

Aim

To introduce the different cells of our immune system. To introduce cancer cells and start to talk about how they can hide from the immune system. The aim of the game is to find pairs of matching cards.

Materials

1 set of matching pairs cards (printed from the below).

Instructions

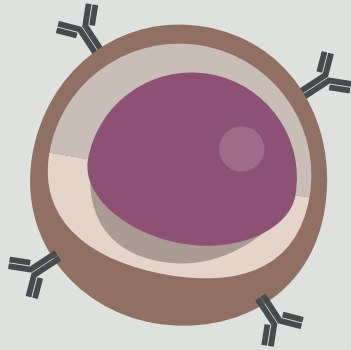
- 1** Lay cards out on the table face down in a random/mixed order.
- 2** Facilitator asks: **Do you want to test your memory and see if you can find the matching pairs?** (*Demonstrate by turning over 2 cards at a time*). **On all of these cards are cells that make up our immune system. Do you know what your immune system is?**
Participant: **Yes/No**
Facilitator: **To be immune means to be 'protected' so it makes sense that the body's system that helps fight off germs and infections is called the immune system. The immune system is made up of a network of cells, tissues, and organs that work together to protect the body. Your immune system works hard all day every day to keep you healthy. Its job is to keep germs out of your body, destroy them or limit the extent of their harm if they get in. Let's see if we can find all the matching pairs of cards, which reveal a different type of cell.**
- 3** Participant turns over two cards at a time – when a matching pair is found, facilitator gives a brief explanation of the cell and what it does and then places pair to one side.
- 4** Participant plays until only two cards are left which don't match.
Facilitator: **Why are there two cards left?**
Participant: **Because they don't match**
Facilitator: **Correct. In one of these images, there are some cancer cells in the skin. Cancer cells were once healthy cells and may look similar to the healthy cells and that's why the immune system can find it tricky to spot cancer. However, cancer cells are very different to healthy cells and can escape being detected and attacked by the immune system. Cancer is a disease in which some of the body's cells grow uncontrollably and spread to other parts of the body. Cancer can start almost anywhere in the body, such as the skin.**



Print these pages and cut out the individual cards



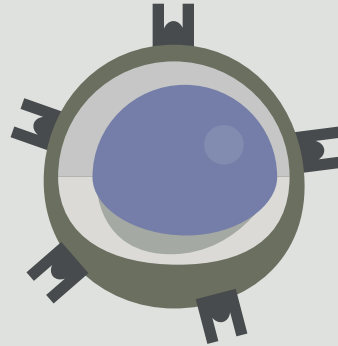
B cell



B cells are like the body's intelligence system. They are the type of white blood cell that makes antibodies. These antibodies recognise and attach to specific molecules known as antigens. Antigens can be found on germs like viruses and bacteria.

British Society for
immunology

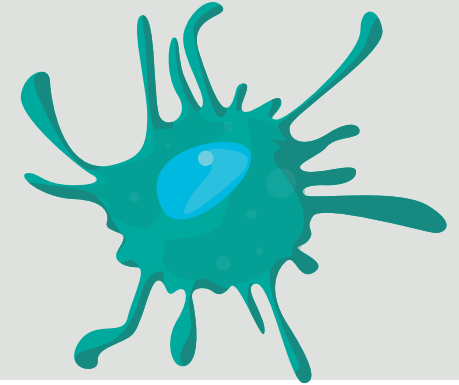
T cell



T cells help protect the body from infection by recognising specific molecules called antigens that are found by other immune cells. T cells can destroy germs.

British Society for
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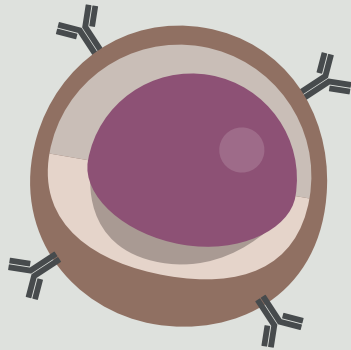
Dendritic cell



Dendritic cells are a special type of immune cell that are found in tissues that are in contact with the external environment, like the skin. These cells boost our immune response by showing antigens (specific molecules) on their surface to T cells.

British Society for
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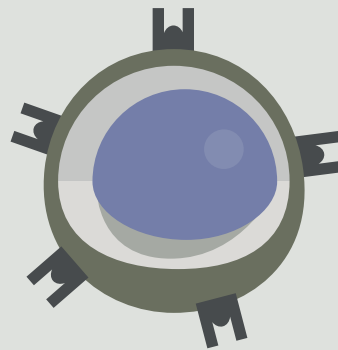
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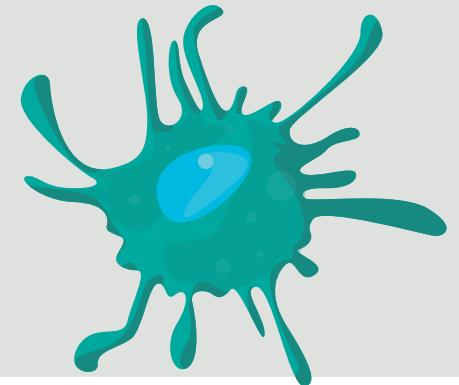
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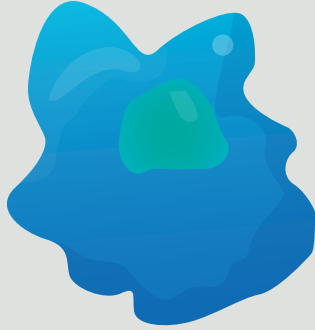
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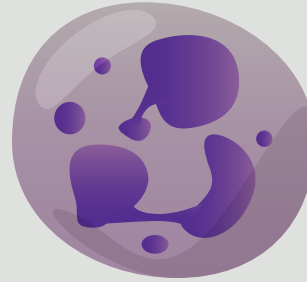
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Macrophage



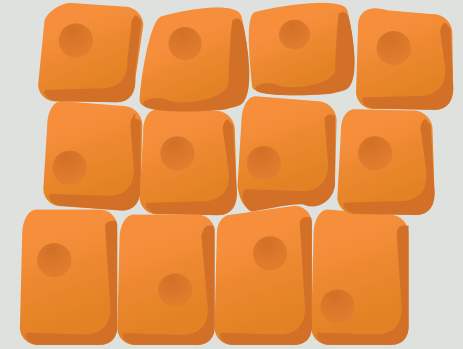
Macrophages are specialised immune cells involved in the detection and destruction of germs. They present antigens to T cells and release chemical signals known as cytokines that activate other immune cells.

Neutrophil



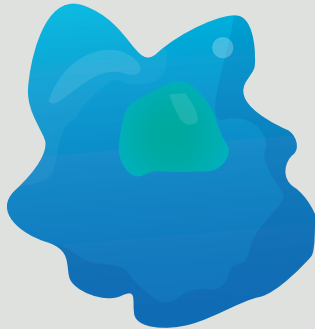
Neutrophils are the most common type of white blood cell. They are specialised to destroy bacteria during an infection and they get to the site of an injury within minutes. However, in a cancer setting they can stimulate tumour growth.

Skin cells



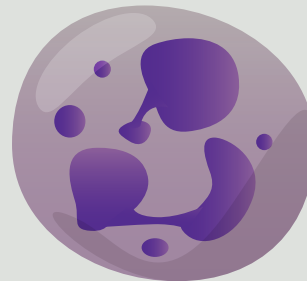
There are many types of cells that make up the skin, which is the largest organ in our body. The skin acts as a barrier between the external environment and our internal organs.

Macrophage



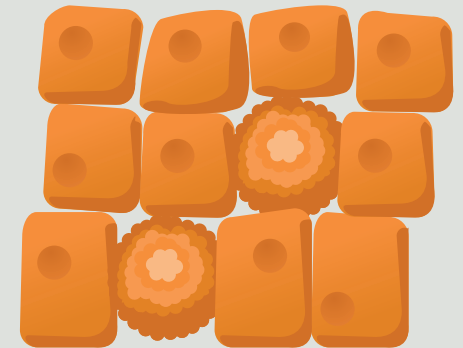
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