If a pathogen is to infect the body it must first gain entry. The bodies first line of defence is to form a physical or

<u>une two types of white blood cell:</u> Phagocytes= ingest and destroy the pathoren bita pro-cess called phagocytosis Lymphocytes = nycoreo in immune responses 0 Socytosis:

Large particles (like some types of bacteria) can be engulfed by cells in the vesicles formed from the cell-surface membrane. This is phagocytosis.

In the blood, the types of white blood cells that carry out phagocytosis are known as **phagocytes**. They provide important defence against pathogens that manage to enter the body.

Some phagocytes travel in the blood but can move out of the blood vessels into other tissues.

The process of phagocytosis:

Phagocytosis

- chemical products of pathogens or dead, abnormal cells act as attractants, causing phagocytes to move towards the pathogen.
- Phagocytes have several receptors on their cell-surface membrane that recognise, and attach to, chemicals on the surface of the pathogen.
- They engulf the pathogen to form a vesicle = known as a 3. phagosome.
- Lysosomes move towards the vesicle and fuse with it. 4
- 5. Enzymes called lysozymes are present within the lysosome. These destroy ingested bacteria by hydrolysis of their cell walls.
- 6. The soluble products from the breakdown of the pathogen are absorbed into the cytoplasm of the phagocyte.