**Immune System Part 2**

**The Secondary Defence System**

If a pathogen were to make it into our bodies then our bodies can mount an immune response to attack and destroy the invading pathogen. If your body recognizes an invading pathogen its first response is to fill the infection site with fluid. This action causes fever, swelling and redness in the area. The swelling and redness is called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.

When an area is inflamed (has inflammation), there is an increase in a type of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** fight infection by finding an invader cell and swallowing it. The increase of phagocytes means there are more white blood cells to eat up the pathogen.

This type of response is usually quick and attacks all types of invading pathogens.

**The main job of the Secondary Defence System is to:**

**The Tertiary Defence System**

The third defence system is a highly specific attack on a particular pathogen, or **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**. An **\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is any substance the body can not recognize. An antigen is different from a pathogen as an antigen is always **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**. Two examples of antigens are **\_\_\_\_\_\_\_\_\_\_\_** and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**. This defence system uses two types of white blood cells to fight off sickness: \_\_\_\_\_\_\_\_\_\_\_\_and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** recognize the antigen present in the body. It produces a specific particle called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** that fight the antigen. Any particular **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** can only attach to one type of antigen. When an antibody attaches to an antigen it prevents the antigen from **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** body cells or marks it for **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** by other white blood cells. After the first infection your body produces **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** that store the new type of antibodies for use in later infections.

**\_\_\_\_\_\_\_\_\_\_\_\_\_** come in two types: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** recognizes the presence of an antigen and activates B cells to produce antibodies to destroy the antigen. Once the attack is over, there are left over antibodies to protect against future infections. This type of protection is often called immunity. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** can work independently and directly destroy antigens or pathogens.

These type of immune responses help give you an **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**. This means the body remembers which antibodies should be used to attack pathogens that have infected the body before.

**The main job of the Tertiary Defence System is to:**

Vocab – Inflammation, Phagocyte, Antigen, Virus, Bacteria, Active Immunity

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