

AQA GCSE Biology (Higher) For the Summer 2022 Exams

Flashcard Notes - 3.1.6 Human defence systems

Copy the questions and answers below onto flashcards and use them to test yourself.

What kinds of defence systems does the human body have to protect it from pathogens?

The body has non-specific defence systems to prevent pathogens from entering the body and it has the immune system to destroy any pathogens that do get into the body.

What are the human body's non-specific defence systems?

The human body has the following non-specific defence systems to prevent pathogens from entering it:

- Skin - The skin acts as a barrier. It also produces antimicrobial secretions that destroy pathogens. If the skin is cut, a blood clot forms to prevent pathogens from entering.
- Nose - The nose contains hairs and mucus to trap pathogens. The mucus is mostly swallowed, which takes the pathogens into the stomach.
- Trachea and bronchi - The trachea and bronchi secrete mucus which traps pathogens. They are lined with hair-like structures called cilia, which beat back and forth to waft the mucus up to the back of the throat where it is swallowed.
- Stomach - The stomach contains acid to destroy any pathogens in food or in swallowed mucus.

What type of cells make up the immune system?

The immune system is made up white blood cells.

What are the roles of white blood cells in the immune system?

The roles of white blood cells in the immune system include the following:

- Some types of white blood cells carry out a process called phagocytosis, which is when the white blood cell ingests (takes in) a pathogen cell and destroys it.
- Some types of white blood cells produce antibodies - proteins that target specific pathogens and help to destroy them.
- Some types of white blood cells produce antitoxins - proteins that bind to toxins released by pathogens and prevent them from causing harm.