

WJEC England Biology GCSE

3.2 - Communicable disease

Flashcards



Give 6 ways diseases can be spread



Give 6 ways diseases can be spread

- Droplet infection
- Eating contaminated food
- Drinking contaminated water
- Direct contact
- Vectors like insects
- Contact with infected bodily fluids



What is the name of the pathogen that causes AIDS?



What is the name of the pathogen that causes AIDS?

Human immunodeficiency virus (HIV)



What are the symptoms of AIDS?



What are the symptoms of AIDS?

HIV weakens the immune system

- Fever
- Flu-like symptoms
- Rash



How can the spread of HIV be prevented?



How can the spread of HIV be prevented?

HIV is spread through bodily fluids

- Don't share needles
- Wear condoms during sex



What is the name of the pathogen that causes chlamydia?



What is the name of the pathogen that causes chlamydia?

Chlamydia trachomatis bacteria



What are the symptoms of chlamydia?



What are the symptoms of chlamydia?

- Pain when urinating
- Painful discharge from the penis or vagina
- Bleeding between periods for women



How can the spread of chlamydia be prevented?



How can the spread of chlamydia be prevented?

Wear condoms during sex



What is the name of the pathogen that causes ash dieback?



What is the name of the pathogen that causes ash dieback?

Hymenoscyphus fraxineus fungi



What are the symptoms of ash dieback?



What are the symptoms of ash dieback?

- Black spots on leaves
- Veins of leaves turn brown
- Shrivelled shoot tips



How can the spread of ash dieback be prevented?



How can the spread of ash dieback be prevented?

- Plant more trees with natural resistance
- Cut down infected trees



What is the name of the pathogen that causes malaria?



What is the name of the pathogen that causes malaria?

Plasmodium falciparum



What are the symptoms of malaria?



What are the symptoms of malaria?

- Fever
- Vomiting and diarrhoea
- Headaches
- Muscle and/or abdominal pain



How can the spread of malaria be prevented?



How can the spread of malaria be prevented?

- Wearing long clothing
- Wearing mosquito repellent
- Sleeping with mosquito nets
- Using malaria prevention tablets



Give 5 non-specific human defences to disease



Give 5 non-specific human defences to disease

- The skin acts as a barrier
- Stomach acid kills ingested pathogens
- Mucus traps pathogens
- Sweat contains antimicrobial chemicals
- Blood clots prevent pathogen entry into wounds



Give 2 ways that lymphocytes can respond to detecting a pathogen



Give 2 ways that lymphocytes can respond to detecting a pathogen

- They can produce antibodies that are specific to the antigens on the pathogen that activate phagocytes
- They can produce antitoxins to neutralise the toxins released by the pathogen



How do phagocytes respond to detecting a pathogen?



How do phagocytes respond to detecting a pathogen?

Phagocytes engulf and break down pathogens in a process known as phagocytosis



How do lymphocytes produce
monoclonal antibodies? (Higher)



How do lymphocytes produce monoclonal antibodies? (Higher)

- Lymphocytes are activated and produce antibodies that are specific to a pathogen
- The lymphocytes divide so that lots of antibodies can be made at once



How can monoclonal antibodies be used to detect diseases like chlamydia, HIV and malaria? **(Higher)**



How can monoclonal antibodies be used to detect diseases like chlamydia, HIV and malaria? (Higher)

Specific monoclonal antibodies that are attached to fluorescent dyes are mixed with bodily fluid so that they will fluoresce if the pathogen is present



How are monoclonal antibodies used in tissue and organ transplants? (Higher)



How are monoclonal antibodies used in tissue and organ transplants? (Higher)

They are used to deactivate T cells so that there is no immune response



How are monoclonal antibodies used to help chemotherapy? (Higher)



How are monoclonal antibodies used to help chemotherapy? (Higher)

They are used to deactivate T cells so that there is no immune response



Give 2 physical plant defences against pathogens



Give 2 physical plant defences against pathogens

- Thick cell wall
- Waxy cuticle



Give 2 physical plant defences against herbivores



Give 2 physical plant defences against herbivores

- Special hardened cells
- Stinging cells and spikes



How do plants use chemical defences to prevent disease?



How do plants use chemical defences to prevent disease?

Plants contain antimicrobial chemicals that can slow the spread of or kill bacteria.



Give 3 ways that diseased plants can be identified (**Higher**)



Give 3 ways that diseased plants can be identified (Higher)

- Visibly abnormal growth and discolouration
- Analysing DNA to see whether the plant contains any pathogen DNA
- Antigen detection to find any foreign antigens present in the plant

