

AQA GCSE Biology (Higher) For the Summer 2022 Exams

Flashcard Notes - 3.1.2 Viral diseases

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

What is a viral disease?

A viral disease is a disease caused by a virus.

Name three viral diseases.

The following are all viral diseases:

- Measles
- HIV/AIDS
- Tobacco Mosaic Virus (TMV)

What is measles?

Measles is a viral disease of humans which produces symptoms of fever and a red skin rash. It is a serious disease and in some cases it leads to death.

How does measles spread?

Measles spreads through the inhalation of droplets from coughs and sneezes.

How is the spread of measles prevented?

The spread of measles is prevented through vaccination. Most young children are vaccinated against measles.

What is HIV/AIDS?

HIV (human immunodeficiency virus) is a virus which infects humans, initially causing symptoms similar to those of flu. If the virus is not successfully controlled with drugs, it attacks the immune system. Eventually, the immune system becomes so weak that the body cannot deal with infections or cancers. This condition is called AIDS (acquired immunodeficiency syndrome). A person with AIDS is susceptible to illness or death from conditions that their immune system would usually have been able to deal with.

How is HIV infection treated?

Although people cannot currently be cured of HIV infection (except in very rare cases), drugs called antiretroviral drugs can be used to control the virus and prevent the infected person from getting AIDS. People infected with HIV who are on effective antiretroviral treatment have life expectancies close to those of uninfected people.

How does HIV spread?

HIV spreads mainly through the following routes:

- Sexual contact (especially anal and vaginal sex)
- Sharing of needles between recreational drug users
- From mother to baby during pregnancy

HIV **cannot** be transmitted by skin-to-skin contact (e.g. shaking hands, hugging).

How can the spread of HIV be prevented?

The spread of HIV can be prevented in the following ways:

- Safe-sex practices, such as the use of condoms
- The use of drugs taken before and after exposure to prevent infection
- Needle exchange programmes for drug users
- The treatment of infected people (people with HIV who are on effective antiretroviral treatment cannot pass on the virus)

What is Tobacco Mosaic Virus?

Tobacco Mosaic Virus (TMV) is a virus which infects many species of plants including tobacco and tomatoes. It causes a distinctive pattern of discolouration of the leaves (which looks like a mosaic). This disrupts photosynthesis, resulting in reduced growth of the plant.