

10 Infectious disease – Part 1

Name: _____ Class: _____ Date: _____

Vocabulary

Write each word three times.

English	Write it 3 times (English)		
microbes	_____	_____	_____
infectious	_____	_____	_____
pathogen	_____	_____	_____
infectious disease	_____	_____	_____
transmitted	_____	_____	_____
cholera	_____	_____	_____
bacterium	_____	_____	_____
faeces	_____	_____	_____
malaria	_____	_____	_____
protoctist	_____	_____	_____
mosquito	_____	_____	_____
vector	_____	_____	_____
tuberculosis	_____	_____	_____
droplets	_____	_____	_____
virus	_____	_____	_____

English	Write it 3 times (English)		
vaccine	_____	_____	_____

Recall

At IGCSE you learned that some diseases are caused by **microbes** and can spread from person to person. Now we name the pathogens and how they spread.

- A disease that spreads is called **infectious**.
- Different diseases spread in different ways – knowing how helps us stop them.

Nothing here is harder than IGCSE – it just organises the facts.

New ideas

Read these first, then do the Practice.

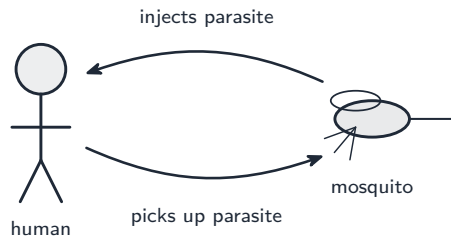
■ 1 Pathogens and four diseases

A **pathogen** is an organism that lives in or on a host and causes harm. An **infectious disease** can be **transmitted** (passed) from one person to another.

Disease	Pathogen	How it spreads
cholera	a bacterium	water or food with faeces in it
malaria	a protoctist	bite of an infected mosquito (a vector)
tuberculosis	a bacterium	airborne droplets from coughs
HIV/AIDS	a virus	unprotected sex, infected blood, mother to baby

■ 2 The mosquito vector

Malaria needs a **vector** – a carrier that passes the pathogen on. A mosquito bites an infected person and picks up the parasite, then injects it into the next person it bites. This is why malaria control targets the **mosquito**.



■ 3 Controlling the diseases

Control has **biological**, **social** and **economic** sides:

- **cholera** – clean water and proper sewage; good hygiene.
- **malaria** – sleep under nets; remove still water where mosquitoes breed; insecticides.
- **TB** – find and treat patients; the BCG **vaccine** ; reduce overcrowding.
- **HIV** – use condoms and clean needles; test donated blood; educate people.

Watch out: learn the pathogen *type* for each disease – cholera and TB are bacteria, malaria is a protist, HIV is a virus. A *vector* (like the mosquito) *carries* the pathogen but is not itself the pathogen.

Practice

Try these in order.

10.1 What is a pathogen? [1]

10.2 Name the type of pathogen that causes (a) malaria, (b) HIV/AIDS, (c) cholera. [3]

10.3 How is tuberculosis spread from person to person? [1]

10.4 Explain what is meant by a *vector*, using the mosquito as an example. [2]

10.5 Cholera spreads through contaminated water. State one way to control it. [1]

10.6 Suggest why removing still water helps to control malaria. [2]

10.7 Challenge. Cholera and tuberculosis are both caused by bacteria, yet they spread in different ways. State how each spreads, and explain why their control methods differ. [2]