

10 Infectious disease – Part 1

Name: _____ Class: _____ Date: _____

Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

English	中文	Write it 3 times (English)		
microbes	微生物	_____	_____	_____
infectious	传染性	_____	_____	_____
pathogen	病原体	_____	_____	_____
infectious disease	传染病	_____	_____	_____
transmitted	传播	_____	_____	_____
cholera	霍乱	_____	_____	_____
bacterium	细菌	_____	_____	_____
faeces	粪便	_____	_____	_____
malaria	疟疾	_____	_____	_____
protoctist	原生生物	_____	_____	_____
mosquito	蚊子	_____	_____	_____
vector	媒介	_____	_____	_____
tuberculosis	结核病	_____	_____	_____
droplets	飞沫	_____	_____	_____
virus	病毒	_____	_____	_____

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

Recall

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

- A disease that spreads is called **infectious** 传染性.
- 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.

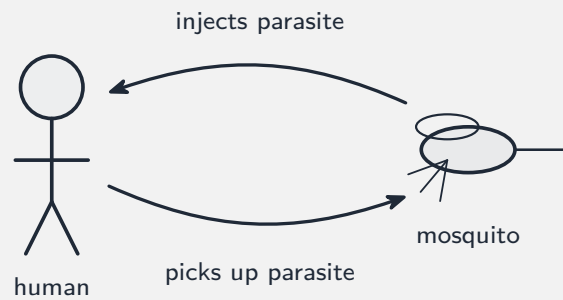
■ 1 Pathogens and four diseases

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

Disease	Pathogen	How it spreads
cholera 霍乱	a bacterium 细菌	water or food with faeces 粪便 in it
malaria 疟疾	a protocist 原生生物	bite of an infected mosquito 蚊子 (a vector 媒介)
tuberculosis 结核病	a bacterium	airborne droplets 飞沫 from coughs
HIV/AIDS	a virus 病毒	unprotected sex, infected blood, mother to baby

■ 2 The mosquito vector

Malaria needs a **vector** 媒介—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** 疫苗; 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]