

The World Health Organisation (WHO) describes health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

The presence of one disease can lead to a higher susceptibility to other

Damage to immune system

Makes it easier for other pathogens to cause disease.

Damage to body defences

Barriers and defences are damages. Pathogens can enter the body.

Damage to Organ systems don't work as organ effectively leading to other diseases. systems

**Communicable** and non communicable diseases

	Communicable	Non-communicable
/	Caused by pathogens. They can be passed from person to person.	Caused by a fault in genes or by the way we live (lifestyle)

Health

**EDEXCEL GCSE HEALTH DISEASE AND MEDICINE** part 1

Plants have several ways of defending themselves from pathogens and animals (Biology only)

Physical	Mechanical
Thick waxy layers, cell walls stop pathogen entry	Thorns, curling up leaves to prevent being eaten

**Chemical** 

Antibacterial and toxins made by plant

Fungi

(eukaryotes)

e.g. athlete's

foot, thrush,

rose black spot

Membrane

organelles, cell

wall made of

chitin. Single

celled or multi-

bound

cellular

Pathogens may infect plants or animals and can be spread by direct contact, water or air

Method of

ses	Detection	Identification				
disea	Stunted growth					
plant diseases	Spots on leaves	Reference				
on of nly)	Area of decay	using gardening				
entification (bio HT only)	growths	manual or website,				
Detection and identification of (bio HT only)	Malformed stem/leaves	laboratory test for pathogens,				
ction a	Discolouration	diagnostic testing.				
Dete	Presence of pests					

**Bacteria** 

(prokaryotes)

e.g.

tuberculosis

(TB),

Salmonella,

Gonorrhoea

No membrane

organelles (no

chloroplasts,

mitochondria

Cell wall. Single

or nucleus).

organisms

bound

celled

Viruses

e.g. cold,

influenza,

measles,

HIV, tobacco

mosaic virus

**DNA or RNA** 

surrounded

by a protein

coat

Bacteria may produce toxins that damage tissues and make us fell ill

**Protists** 

(eukaryotes)

e.g.

dysentery,

sleeping

sickness,

malaria

Membrane

organelles.

Usually single

bound

celled.

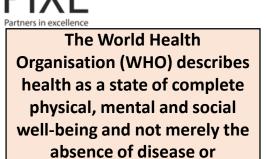
Pathogens are microorganisms that cause infectious disease

**Pathogens** 

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Pathogen	Disease	Symptoms	Method of transmission	Control of spread		
Bacteria	cholera	Causes diarrhoea.	Contaminated water	Vaccination, water treatment to remove bacteria.		
Bacteria	tuberculosis	Causes lung damage.	Air borne water droplets from couching.	Isolation of infected person, vaccination.		
Fungi	Chalara ash dieback	Leaf loss and bark lesions.	Spores in the air.	Remove/destroy infected trees.		
Protists	Malaria	Recurrent fever. Damage to blood and liver.	By an animal vector (mosquitoes).	Prevent breeding of mosquitoes. Use of nets to prevent bites.		
Bacteria	Stomach ulcers (Bio only)	Pain in abdomen, damage to stomach lining.	Oral transmission.	60% already carry the bacteria.		
Virus	Ebola (Bio only)	Internal bleeding and fever.	Contact with bodily fluids of an infected person.	Isolation of infected person. Vaccination.		
Virus	HIV	Initially flu like systems, serious damage to immune system.	Sexual contact and exchange of body fluids.	Anti-retroviral drugs and use of condoms.		
Bacteria	Chlamydia	Unusual discharge from genitals or anus, pain when urinating.	Unprotected sex.	Using condoms during sex.		



infirmity.

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Pathogens are microorganisms that cause infectious disease

Pathogens

Communicable diseases

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Partners in excellence The World Health								Comm	unicable		PIXL
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			_ P		es						
			Pathogens that cause		diseases						
			are microorganisms infectious disease	Path	Communicable						
			organism s disease	Pathogens							
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