

# Infectious Disease

## Types of pathogen that make us ill

**Bacteria** – reproduce and release toxins

**Virus** – invade our cells, reproduce and cause the cell to burst

**Fungi** – grow and penetrate our skin, causing disease

**Protists** – single cell eukaryotes (no nucleus)

## How pathogens are spread

**Water** – drinking contaminated water, eg. water infected with cholera (a bacterial infection).

**Direct contact** – transfer of pathogens by touching contaminated objects.

**Air** – pathogens transferred in droplets from sneezing or coughing, such as the influenza virus.

## Reducing Spread of Disease

**Hygiene** – washing hands before cooking and after sneezing.

**Killing vectors** – Insects that carry diseases are called vectors. Killing them or destroying their habitats can prevent the spread of disease.

**Isolating infected people** – prevents them passing the disease to anyone else.

**Vaccination** – the person cannot become infected and pass it on. Animals can also be vaccinated.

## Examples of Diseases

Disease	Caused by	Symptoms	Treatment/Prevention
Measles	<u>Virus</u>	Red skin rash & fever	Vaccination
HIV	<u>Virus</u>	Flu-like symptoms. Long term the body cannot fight other infections.	Antiretroviral drugs
Tobacco mosaic virus (TMV)	<u>Virus</u>	Mosaic pattern on plant leaves. Photosynthesis is inhibited.	
Rose black spot	<u>Fungus</u>	Purple or black spots on rose plant leaves. Photosynthesis is inhibited.	Fungicides. Cutting off the infected leaves.
Malaria	<u>Protist</u> Spread by mosquitos	Fever.	Protection from mosquito bites (nets and insecticides).
Salmonella	<u>Bacteria</u> from contaminated food.	Fever, stomach cramps, vomiting, diarrhoea	Poultry is vaccinated against Salmonella. Cook food properly.
Gonorrhoea	<u>Bacteria</u> A STD.	Pain when urinating. Discharge from penis or vagina.	Antibiotics. Using barrier methods of contraception.