

Knowledge Organiser: Biology, CB5

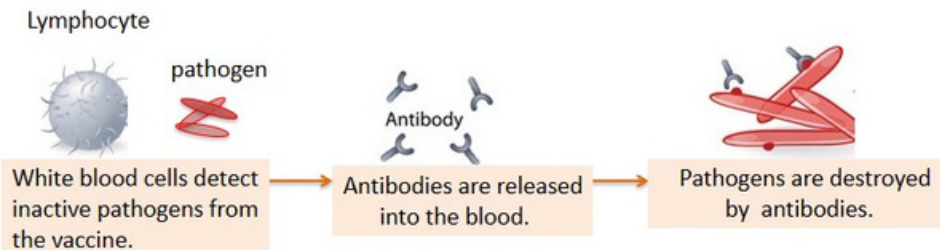
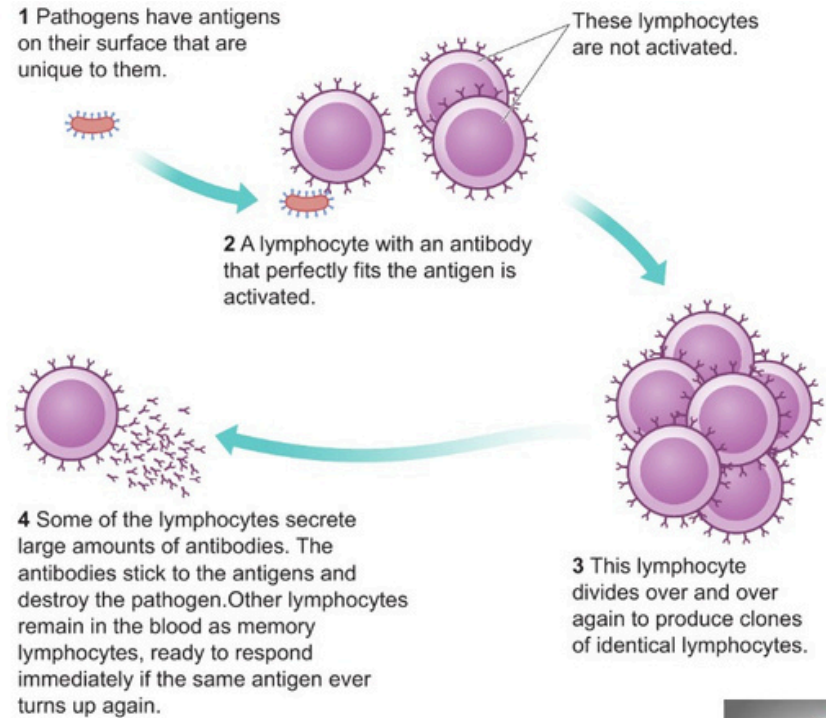
- 1 Health is a state of complete physical, social and mental wellbeing
- 2 A pathogen is a micro-organism that causes disease e.g. bacteria, virus, fungus, protist
- 3 A communicable disease is one that can be passed from person to person
- 4 A non-communicable disease is one that cannot be passed from person to person but is inherited or due to lifestyle.
- 5 Disease is an illness that prevents the body functioning normally.
- 6 Malnutrition is a health problem caused by too little or too much of a nutrient
- 7 A deficiency disease is caused by too little of a nutrient
- 8 A drug is a substance that alters the functioning of part of the body
- 9 BMI-body mass index, an estimate of how healthy a person's weight is for their height
- 10 A vector is something that transfers things from one place to another
- 11 STIs are sexually transmitted infections e.g. chlamydia and HIV
- 12 An antigen is the proteins on the surface of a cell
- 13 An antibody is a protein synthesised by lymphocytes, specific to an antigen on a micro-organism that will recognise it and help destroy it.

Nutrient	Disease caused by deficiency of nutrient	Symptoms of disease	Good sources in diet
protein	kwashiorkor	enlarged belly, small muscles, failure to grow properly	meat, fish, dairy, eggs, pulses (e.g. lentils)
vitamin C	scurvy	swelling and bleeding gums, muscle and joint pain, tiredness	citrus fruits (e.g. oranges) and some vegetables (e.g. broccoli)
vitamin D and/or calcium	rickets or osteomalacia	soft bones, curved leg bones	vitamin D: oily fish calcium: dairy products
iron	anaemia	red blood cells that are smaller than normal and in reduced number, tiredness	red meat, dark green leafy vegetables, egg yolk

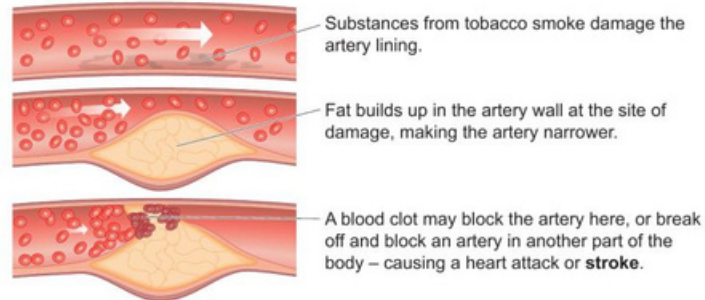
Disease	Symptom	Method of transmission	Control spread of disease by:	Caused by:
Malaria	Recurrent fever	Animal vector	Preventing breeding of mosquitoes or use of a net to prevent being bitten.	Protist
Chalara ash dieback	Leaf loss and bark lesions	Airborne	Remove infected leaf litter. Clean all tools, vehicles and footwear.	Fungus
Cholera	Diarrhoea	Waterborne	Clean drinking water and good hygiene and sanitation.	Bacteria
Tuberculosis	Lung damage	Airborne	Vaccination programme. Treat infection with antibiotics.	Bacteria
HIV	Flu like illness	Sexual contact or bodily fluids. Direct contact.	Use of condoms / clean needles. Treat infection with antiretroviral drugs.	Virus

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14	Lymphocytes are a type of white blood cell that produce antibodies
15	Immune is where a person does not fall ill after an infection because their immune system attacks and destroys the pathogen quickly
16	A secondary response is the way in which the immune system responds the second time the body is infected with a pathogen
17	Antibiotics are drugs that will kill bacteria
18	The body's physical defences against pathogens are skin, mucus, scabs, and ciliated cells
19	The body's chemical defences against pathogens are hydrochloric acid and lysozyme



$$\text{BMI} = \frac{\text{mass (kg)}}{(\text{height (m)})^2}$$



C Damage to blood vessels by substances from tobacco smoke can cause the build-up of fat in an artery.

