

B3 Disease FACT SHEET

| Health and disease | |
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| 1. What is health | Physical and mental wellbeing |
| 2. List factors that affect your health | <ul style="list-style-type: none"> • Diet • Exercise • Stress • Events in your life • Disease |
| 3. Describe how different types of disease can interact | <ul style="list-style-type: none"> • Viruses can trigger cancer • Physical ill health can lead to mental illness |
| Non-communicable disease and risk factors | |
| 4. What do we call a disease which can't be passed from person to person? | Non-communicable |
| 5. What do we call a factor ('something') that increases the chance of getting a disease? | Risk factor |
| 6. State a risk factor for lung disease | Smoking |
| 7. List risk factors for heart disease | <ul style="list-style-type: none"> • Smoking • Not enough exercise • Drinking a lot of alcohol • Diet high in salt and fat • Obesity |
| 8. List risk factors for obesity | <ul style="list-style-type: none"> • Not enough exercise • Diet high in fat and sugar |
| 9. State a risk factor for cancer | <ul style="list-style-type: none"> • Smoking • Sunburn • Being exposed to carcinogens (chemicals that cause cancer) |
| 10. State a risk factor for type 2 diabetes | <ul style="list-style-type: none"> • Obesity • Diet high in sugar • Not enough exercise |
| 11. List harmful effects of smoking | <ul style="list-style-type: none"> • Cancer • Heart disease • Stroke |
| 12. Which organs does alcohol damage? | <ul style="list-style-type: none"> • Liver • Brain |
| 13. Name 2 activities which seriously harm unborn babies | <ul style="list-style-type: none"> • Smoking • Drinking alcohol |

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| Cancer | |
| 14. What is cancer? | Uncontrolled cell growth and division |
| 15. Name 2 types of tumour | <ul style="list-style-type: none"> • Benign • Malignant |
| 16. Which type of tumour does not spread/ invade other areas? | Benign |
| 17. Which type of tumour is a cancer, which can spread and invade other areas? | Malignant |
| Communicable disease | |
| 18. What is a communicable disease? | <ul style="list-style-type: none"> • It can pass from person to person |
| 19. What do we call micro-organisms which cause disease? | Pathogens |
| 20. List 4 types of pathogen | <ul style="list-style-type: none"> • Bacteria • Virus • Fungi • Protist |
| 21. How do pathogens cause illness? | Make toxins |
| 22. Which type of pathogen goes inside cells? | Virus |
| Examples of communicable diseases | |
| 23. Name 3 diseases caused by viruses | <ul style="list-style-type: none"> • Measles • HIV • Tobacco mosaic virus (plants) |
| 24. List the symptoms of measles | <ul style="list-style-type: none"> • Fever • Red skin rash |
| 25. How is measles spread? | Breathing in droplets from coughs and sneezes |
| 26. Which cells does HIV infect? | White blood cells |
| 27. What are the initial symptoms of HIV? | Like the flu |
| 28. How is HIV spread? | <ul style="list-style-type: none"> • Sexual contact • Sharing needles |
| 29. When does HIV become AIDS? | The immune system is damaged and can't deal with other infections |
| 30. What are the symptoms of tobacco mosaic virus? | <ul style="list-style-type: none"> • Discoloured patches on the leaves • So slower plant growth |
| 31. Name 2 diseases caused by bacteria | <ul style="list-style-type: none"> • Salmonella (food poisoning) • Gonorrhoea |
| 32. List the symptoms of salmonella food poisoning | <ul style="list-style-type: none"> • Fever, stomach ache • Being sick, diarrhoea |

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| 33.How is salmonella spread? | Eating infected food |
| 34.List the symptoms of gonorrhoea | <ul style="list-style-type: none"> • Thick yellow/ green discharge from the vagina or penis • Pain when urinating (weeing) |
| 35.How is gonorrhoea spread? | Sexual contact |
| 36.How is gonorrhoea treated? | antibiotics |
| 37.Name a disease caused by a fungi | Rose black spot (plants) |
| 38.What are the symptoms of rose black spot? | <ul style="list-style-type: none"> • Black spots on the leaves • Plant grows slower |
| 39. How is rose black spot spread? | Through water / wind |
| 40.How is rose black spot treated? | Fungicides or remove infected leaves |
| 41.Name a disease caused by a protest | Malaria |
| 42.State a symptom of malaria | Fever |
| 43.Name the vector for malaria | Female mosquito |
| 44.How is the spread of malaria reduced? | <ul style="list-style-type: none"> • Use mosquito nets • Stop mosquitos breeding |
| Human defences | |
| 45.List the non-specific defences that protect the body | <ul style="list-style-type: none"> • Skin • Mucus in the nose • Mucus and cilia in the trachea and bronchi • Hydrochloric acid in the stomach |
| 46.Name the cells that defend the body against pathogens | White blood cells |
| 47.List 3 ways white blood cells defend the body against pathogens | <ul style="list-style-type: none"> • Phagocytosis (eat them!) • Make antitoxins • Make antibodies |
| Immunity and vaccinations | |
| 48.How do we describe someone who won't get ill, even if the pathogen comes into their body? | Immune |
| 49.List 2 ways we can become immune | <ul style="list-style-type: none"> • Being ill with the disease • Having a vaccination |
| 50. Explain why you are immune once you have had a disease | <ul style="list-style-type: none"> • White blood cells • Make antibodies • Very very very very fast when the pathogen comes into the body for a second time • (so fast you don't get ill the second time) |

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| 51.What is inside a vaccine? | Dead/ weak pathogen |
| 52. Explain why you are immune after a vaccination | <ul style="list-style-type: none"> • White blood cells • Make antibodies • Very very very very fast when the pathogen comes into the body for a second time • (antibodies are made so fast you don't get ill the second time) |
| Medicines | |
| 53.What do we call chemicals which reduce symptoms but which do NOT kill the pathogen? | Painkillers |
| 54.What do we call chemicals which kill bacteria? | Antibiotics |
| 55.What do we call bacteria which cannot be killed by antibiotics? | Antibiotic resistant bacteria |
| 56.Why can't antibiotics kill viruses? | Viruses are inside the body's cells |
| Drug Testing | |
| 57.Which drug comes from foxgloves? | Digitalis (heart drug) |
| 58.Which drug comes from willow trees? | Aspirin (a painkiller) |
| 59.Which drug was discovered by Alexander Fleming from the <i>Pencillum</i> mould? | Penicillin (an antibiotic) |
| 60.Why do drugs needs to be tested? | <ul style="list-style-type: none"> • To check they work • To make sure they are safe • To find out how much to take |
| 61.What are preclinical trials done on? | Cells, tissues, live animals |
| 62.Who are drugs tested on in clinical trials? | Healthy volunteers and patients |
| 63.What do we call a 'dummy' drug which is used in drug trials? | Placebo |
| 64.What do we call a trial where the patients do not know if they are being given a drug or a placebo? | Blind drug trial |
| 65.What do we call a trial where the doctors and patients do not know if they are being given a drug or a placebo? | Double blind drug trial |