

Non Communicable Disease Cancer

GCSE Biology · Written to the shared content for AQA, Edexcel and OCR

Name _____ Class _____ Date _____

1. Worked example

Describe the difference between a benign and a malignant tumour. (2 marks)

Step 1 · Benign

Growth of abnormal cells contained in one area, usually within a membrane; does not invade other parts of the body.

Step 2 · Malignant

Cancerous: invades neighbouring tissues and can spread to other parts of the body in the blood, forming secondary tumours.

Answer: Benign stays in one place; malignant invades and spreads (secondary tumours)

Check: Both are caused by uncontrolled cell division.

2. Now try one with the steps

Give two ways that diseases can interact. (2 marks)

Step 1 · Immune defects

Step 2 · Viruses and cancer

Step 3 · Others

Answer:

3. Practice

Show your working. The marks tell you how much is expected.

1. Define health. [1]

2. What is a non-communicable disease? [1]

3. Give two risk factors for type 2 diabetes. [2]

4. What is a carcinogen? Give one example. [2]

5. Describe how cancer starts. [2]

6. Give two effects of drinking too much alcohol over a long time. [2]

7. Explain how smoking during pregnancy can affect the baby. [2]

8. Explain how a malignant tumour forms secondary tumours. [2]

9. Give two financial costs of non-communicable diseases to a country. [2]

10. A city of 500 000 has 1250 cases of a disease. Calculate the rate per 100 000. [2]

11. Calculate the body mass index (BMI) of a person of mass 81 kg and height 1.80 m. $BMI = \frac{\text{mass}}{\text{height}^2}$. [2]

12. Explain why a correlation between two factors does not always mean one causes the other. [2]

13. Explain why the HPV vaccine may reduce cases of cervical cancer. [2]

14. Evaluate the claim that 'lifestyle is the main cause of non-communicable disease'.

[4]

4. Before you hand it in

"A risk factor causes the disease."

A risk factor is linked to an INCREASED RATE of disease. Not everyone exposed gets the disease.

"All tumours are cancer."

Benign tumours do not invade or spread. Only malignant tumours are cancers.

Concluding causation from a correlation alone

Look for a mechanism and large, controlled studies before concluding a factor causes a disease.