



(b) Lung cancer and other cancers are caused by smoking tobacco.

State the names of **two other** diseases caused by smoking tobacco.

1 .....

2 .....

[2]

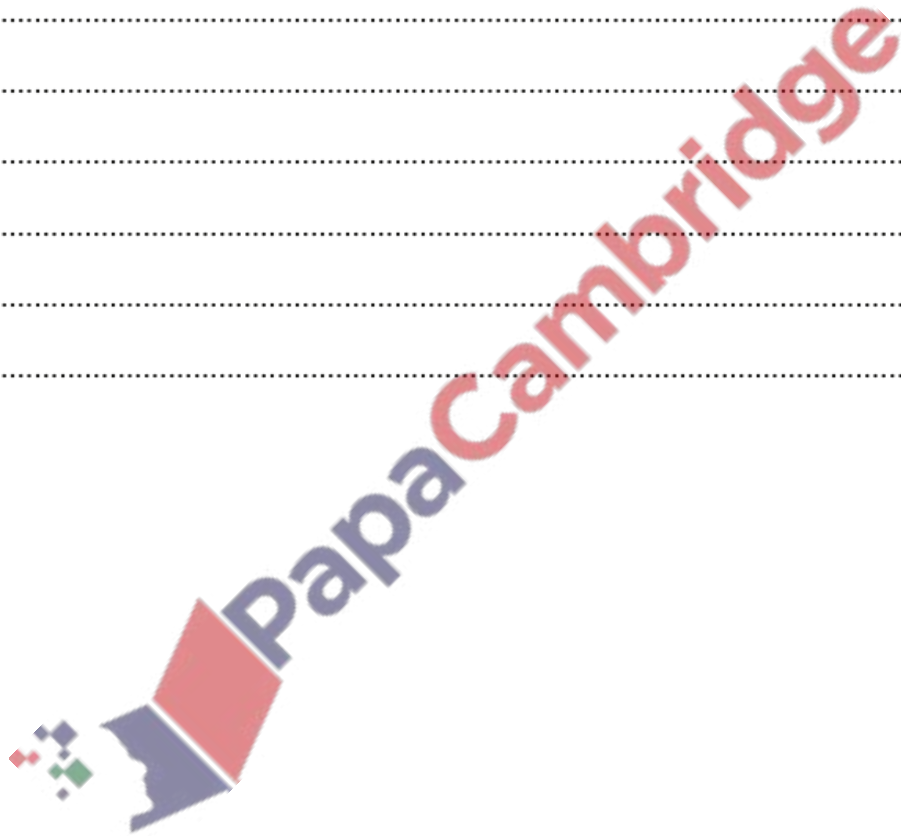
(c) State the name of the component of tobacco smoke that causes cancer.

..... [1]

(d) Describe the effects of carbon monoxide on the gas exchange system.

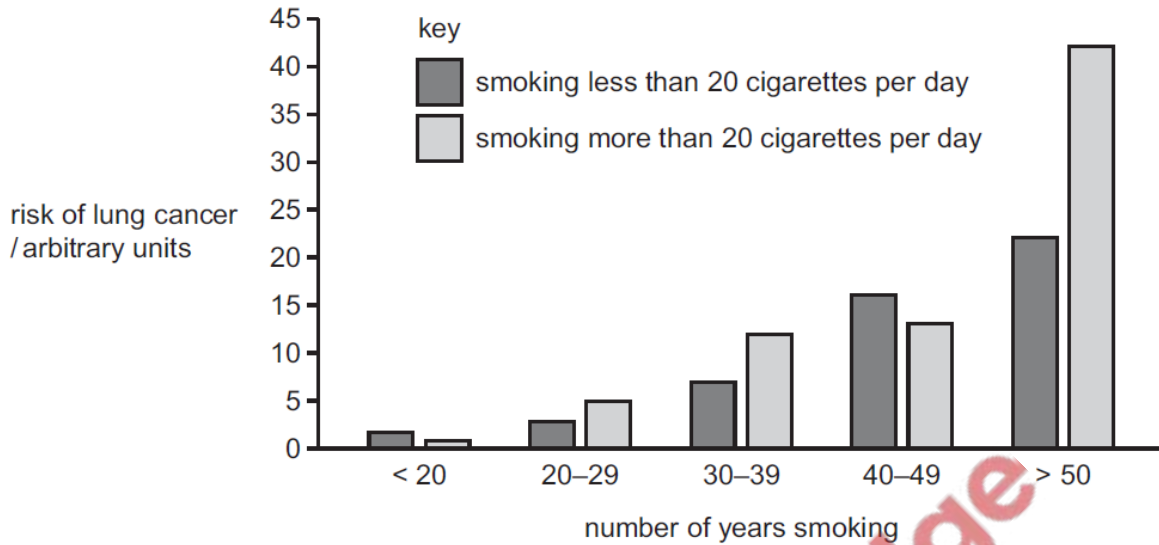
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.....  
..... [3]

[Total: 9]



2. June/2021/Paper\_12/No.29

The graph shows how smoking different numbers of cigarettes for different lengths of time affects the risk of lung cancer.



Which conclusions are supported by the data in the graph?

- 1 Smoking more than 20 cigarettes per day always increases the risk of lung cancer more than smoking less than 20 cigarettes per day.
- 2 Smoking cigarettes for more years increases the risk of lung cancer.
- 3 Smoking more than 20 cigarettes per day for more than 50 years has the highest risk of lung cancer.

A 1, 2 and 3    B 1 and 2 only    C 1 and 3 only    D 2 and 3 only

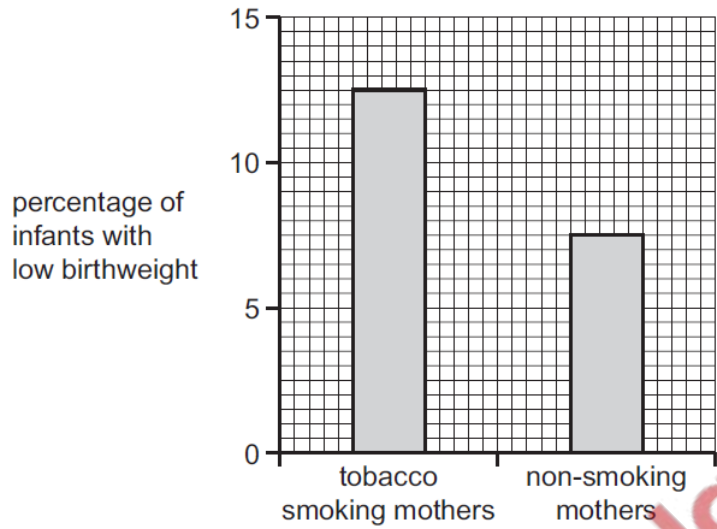
3. June/2021/Paper\_13/No.29

Why are people advised not to drive a car after drinking an excessive quantity of alcohol?

- A Alcohol is a depressant.
- B Alcohol is a stimulant.
- C Alcohol decreases reaction time.
- D Alcohol is addictive.

4. June/2021/Paper\_13/No.31

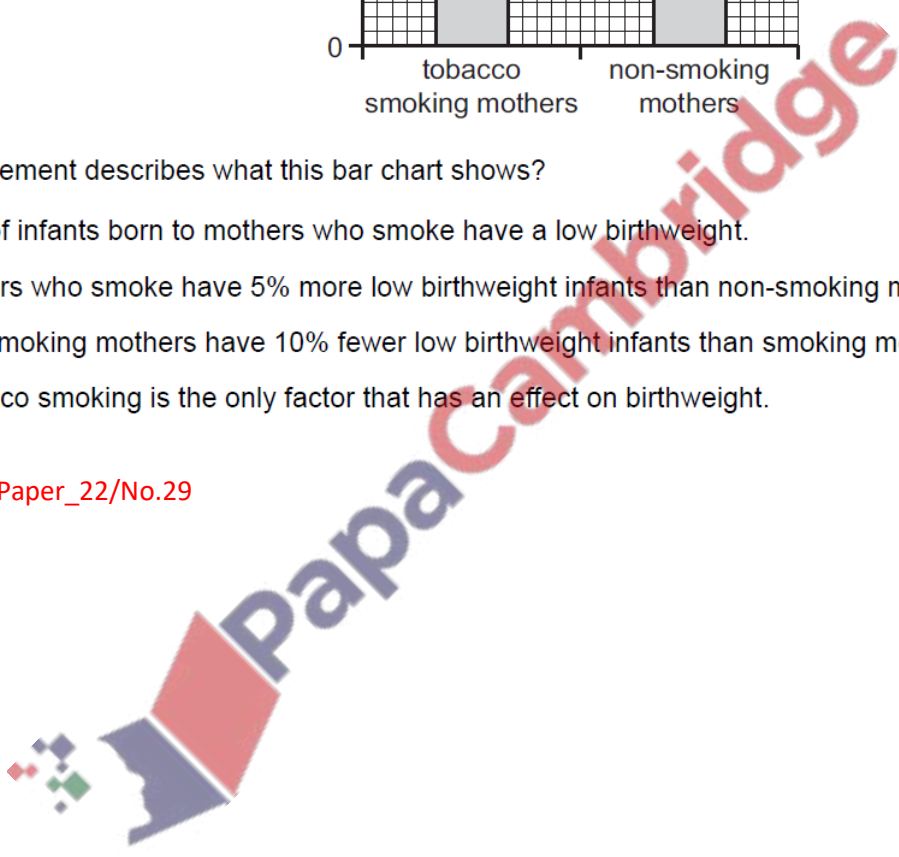
Scientists studied the effect on infant birthweight of mothers smoking tobacco. They compared their findings with the birthweights of infants from non-smoking mothers. The results are shown in the bar chart.



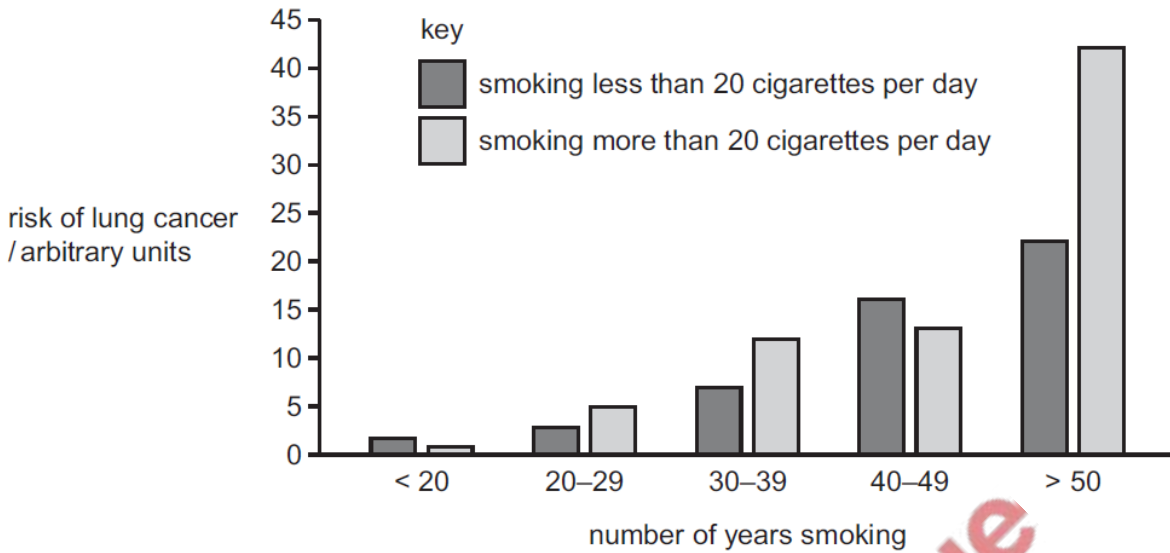
Which statement describes what this bar chart shows?

- A 15% of infants born to mothers who smoke have a low birthweight.
- B Mothers who smoke have 5% more low birthweight infants than non-smoking mothers.
- C Non-smoking mothers have 10% fewer low birthweight infants than smoking mothers.
- D Tobacco smoking is the only factor that has an effect on birthweight.

5. June/2021/Paper\_22/No.29



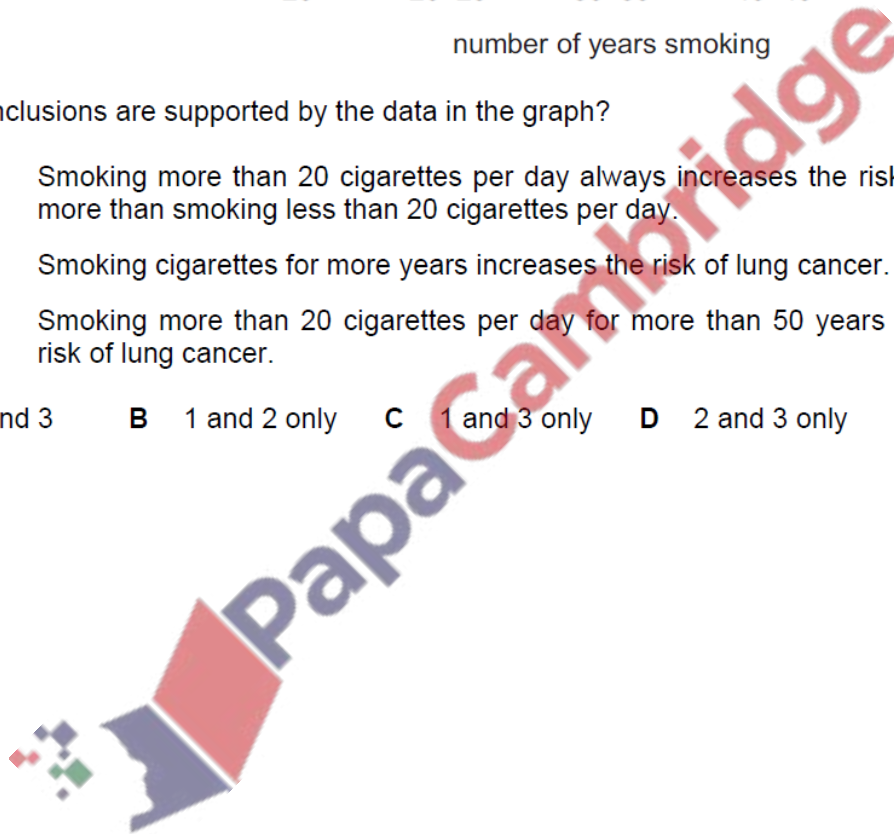
The graph shows how smoking different numbers of cigarettes for different lengths of time affects the risk of lung cancer.



Which conclusions are supported by the data in the graph?

- 1 Smoking more than 20 cigarettes per day always increases the risk of lung cancer more than smoking less than 20 cigarettes per day.
- 2 Smoking cigarettes for more years increases the risk of lung cancer.
- 3 Smoking more than 20 cigarettes per day for more than 50 years has the highest risk of lung cancer.

**A** 1, 2 and 3    **B** 1 and 2 only    **C** 1 and 3 only    **D** 2 and 3 only



(a) Fig. 3.1 shows the number of deaths in one country that were due to excessive alcohol consumption.

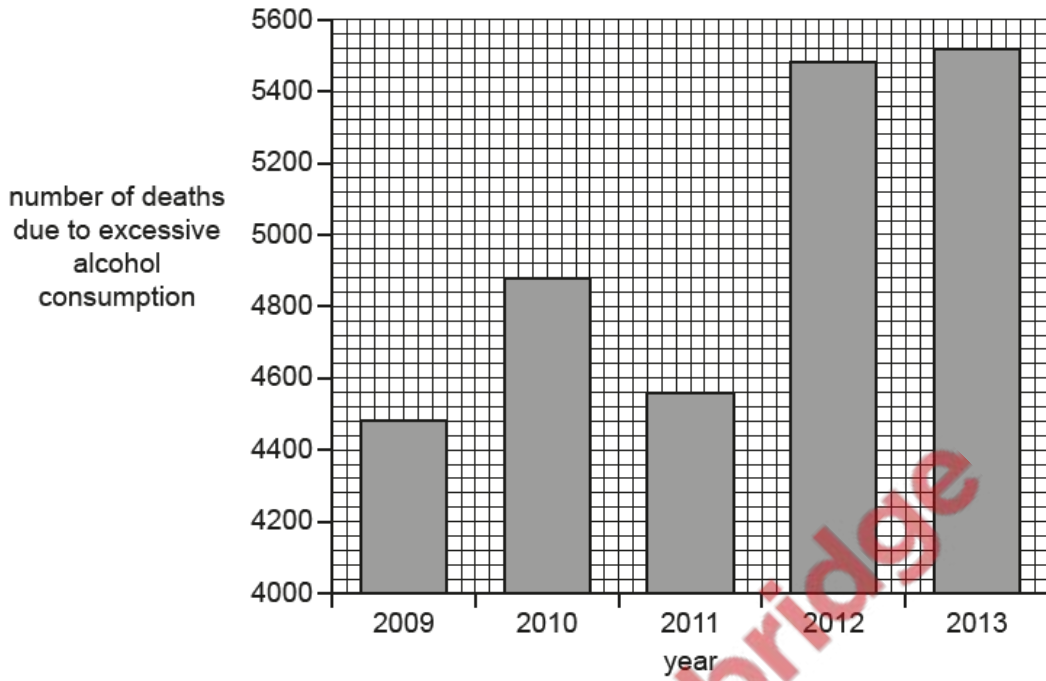


Fig. 3.1

Describe the results shown in Fig. 3.1.

Use the data to support your answer.

.....

.....

.....

.....

.....

.....

.....

[3]

(b) Describe **two** short-term effects of excessive alcohol consumption on the nervous system.

1 .....

.....

2 .....

.....

[2]

(c) State the name of **one** organ damaged by long-term excessive alcohol consumption.

..... [1]

(d) Alcohol dehydrogenase is an enzyme that breaks down alcohol in the body.

Fig. 3.2 shows the activity of alcohol dehydrogenase at different pH values.

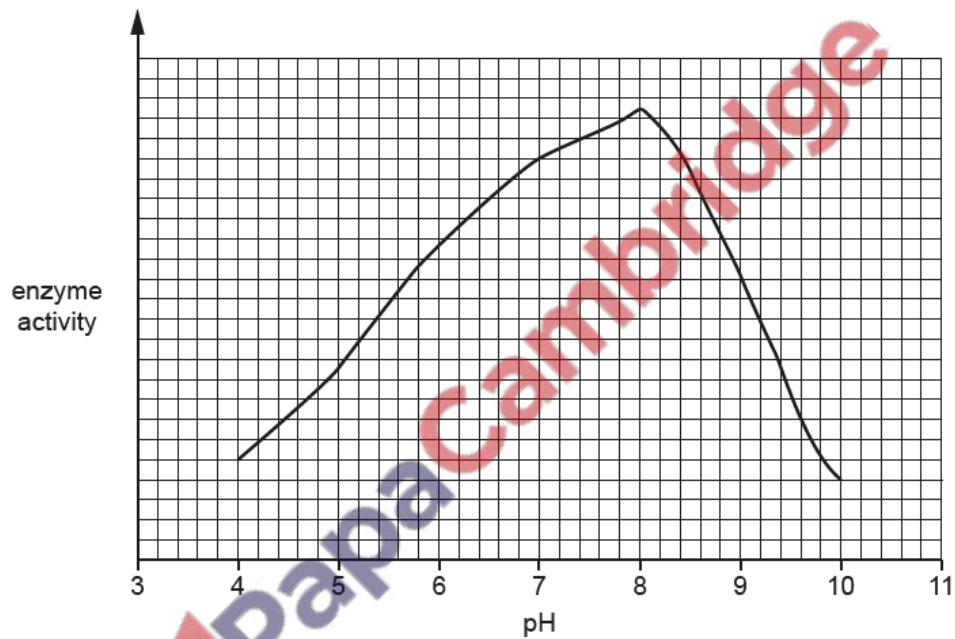


Fig. 3.2

(i) State the pH value with the highest enzyme activity in Fig. 3.2.

..... [1]

(ii) State the pH value with the lowest enzyme activity in Fig. 3.2.

..... [1]

(iii) Suggest **one other** factor that could affect the activity of the enzyme alcohol dehydrogenase.

..... [1]

(e) Enzymes are biological catalysts.

Define the term catalyst.

.....  
.....  
..... [2]

(f) Enzymes are proteins.

Circle the elements that all enzymes contain.

calcium

carbon

hydrogen

iodine

iron

magnesium

nitrogen

oxygen

[2]

[Total: 13]

