

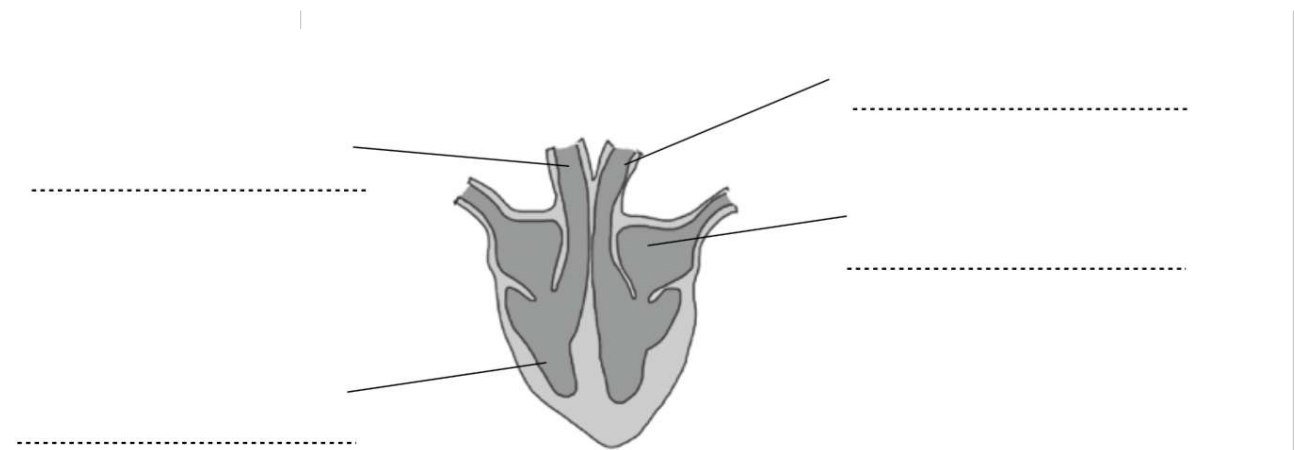
# The Blood and Circulation

0 1

1

Label the diagram of the heart below

[4 marks]



0 1

2

Explain how blood is moved through the heart. In your answer include how the direction of blood flow is maintained

[4 marks]

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0 1

3

The heart receives a supply of oxygen through arteries. These arteries can become narrowed. Narrowed arteries could cause a heart attack.

One method to treat a narrowed artery is to use a stent

a) Name the arteries that supply oxygen to the heart

[1 mark]

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b) Explain how treatment using a stent could prevent a heart attack

[2 marks]

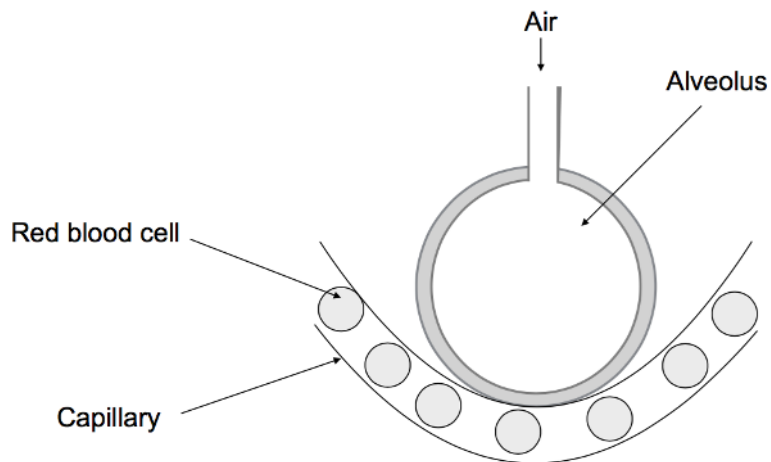
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## The Blood and Circulation

**0 1 . 4**

Below is a diagram of a capillary wrapped around an alveolus in the lungs



- (a) (i) The average number of alveoli in each human lung is 280 million. The average surface area of 1 million alveoli is  $0.25\text{m}^2$ .

Calculate the total surface area of a human lung.

Answer = \_\_\_\_\_  $\text{m}^2$   
[2 marks]

**0 1 . 5**

- (a) (ii) Red blood cells transport oxygen.

Explain how oxygen is moved from the lungs to the tissues

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[3 marks]

- (a) (iii) Complete the table to show the function of the parts of the blood. [4 marks]

Part of blood	Function
	Helps to clot the blood
	Carries oxygen
	carries carbon dioxide
	protects the body from disease