

What happens to our bodies when we exercise?

Highlight key points below

Muscles need energy to contract. While exercising, the muscles need additional energy as:

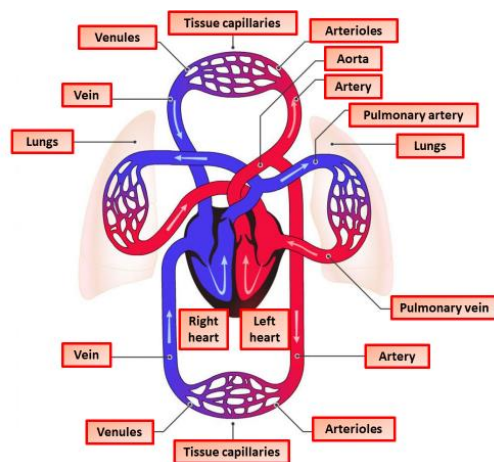
- the breathing rate and volume of each breath increases to bring more oxygen into the body and remove the carbon dioxide produced
- the heart rate increases, to supply the muscles with extra oxygen and remove the carbon dioxide produced

If insufficient oxygen is available to the muscles, for instance the exercise is vigorous and/or prolonged, the heart and lungs are unable to supply sufficient oxygen. Muscles begin to respire anaerobically. Lactic acid is produced from glucose, instead of carbon dioxide and water. Muscles continue to contract, but less efficiently

Jane likes playing football. When she plays football, she uses more energy than usual. Some of her body systems work faster than normal.

Task:

- Describe what happens to her circulation system
- and her breathing system when she plays football.
- Explain why these changes happen.
- Draw diagrams to help explain your ideas.



Questions that you should ask yourself while completing this

What should I do first?

Is something confusing me?

Could I explain this to someone else?

Could I have used more scientific terms?

Where can I look for help?

Have I double checked what I need to include?

How can I do it better?

Done	You might have for each heading:
	<ul style="list-style-type: none"> • Listed what changes happen to Jane's body when she plays football. • Listed the main body organs involved. • Stated simply why these changes happen.
	<ul style="list-style-type: none"> • Described the changes that happen to Jane's body when she plays football. • Described the jobs of body organs in each system, using key words. • Described simply where the body gets energy from.
	<ul style="list-style-type: none"> • Described the changes that happen to Jane's body when she plays football. • Described the jobs of body organs in each system, using key words. • Described where the body gets energy from. • Listed the substances the body needs when exercising and described how they are transported around the body.
	<ul style="list-style-type: none"> • Described and explained the changes to Jane's body when she exercises. • Drawn a cell diagram and described what substances cells need for respiration. • Described what happens to the waste products of respiration. • Explained where the substances come from and how they get to the cells. • Written the word equation for respiration.
	<ul style="list-style-type: none"> • Used detailed scientific knowledge and understanding to explain the changes to Jane's body during exercise. • Drawn a cell diagram and described what substances cells need for respiration. • Made links between the two body systems for respiration to take place in the cells. • Explained, in detail, what happens in the body cells during respiration.