THE HEART AND CIRCULATION 1



Shortness of breath

Shortness of breath, or **breathlessness**, is dyspnoea. At first this is caused by **exertion** – physical activity such as climbing stairs – but in severe cases it may be present even **at rest**. A patient who is breathless when lying flat (orthopnoea), for example in bed, will tend to sleep raised up on two or more pillows. The abbreviation **SOBOE** stands for **shortness of breath on exercise** (or **on exertion**, or **on effort**).

Patients say:

"I get terribly short of breath climbing stairs."

Doctors can ask?

"How many pillows do you sleep on?"

Heart rhythm

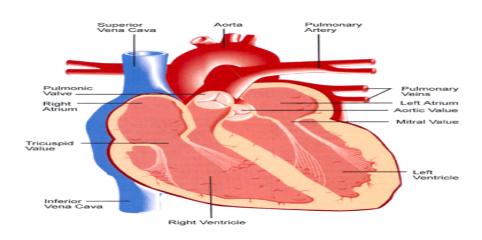
The normal resting **heart rate** is **65-75 beats per minute**. In athletes it may be as low as 40 beats per minute. In extreme athletic activity, the heart rate can go as high as 200/min. The heart **rhythm** may be **regular** or **irregular**. In an irregular rhythm (arrhythmia), there may be early beats which interrupt the regular rhythm (**premature beats**); or the rhythm may vary with respiration; or it may be completely irregular, as in **fibrillation**. When patients are aware of irregularity, they describe the symptom as **palpitations**.

Case 4

A 22-year-old student was admitted to hospital with a long history of heart problems. She had been increasingly tired, with shortness of breath on exertion, orthopnoea, and palpitations. A **mitral valve replacement** had been carried out 3 years previously and this had stabilized the symptoms of the heart failure but was followed by **episodes** (attacks) of **atrial fibrillation**, which had been particularly severe for the 6 months before admission.

Heart Failure

Heart failure occurs when the heart is unable to maintain sufficient **cardiac output**-the amount of blood pumped by the heart each minute – for the body's needs. It may involve the left side of the heart, the right side, or both. In **left heart failure** the main symptom is breathlessness. The symptoms of **right heart failure** include **peripheral oedema (swelling)**, beginning in the feet and ankles. This is known as **pitting oedema** if, when a finger is pushed into the swelling, it causes a small depression or pit.



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2 arrhythmia			
Patient: I've been getting (1) Doctor: How long have you had them? Patient: For about six months. But I've had heart problems for years, with tiredness and (2) of (3) In the end I couldn't walk more than a hundred metres without having to stop. I had to sleep on three (4) I had a (5) replacement three years ago, and that improved things for a while. Make word combinations using a word from each box. Two words can be used twice. at	-		history presented in the above text.
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Express your idea.

How would you manage the treatment of the woman in the above case?