

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

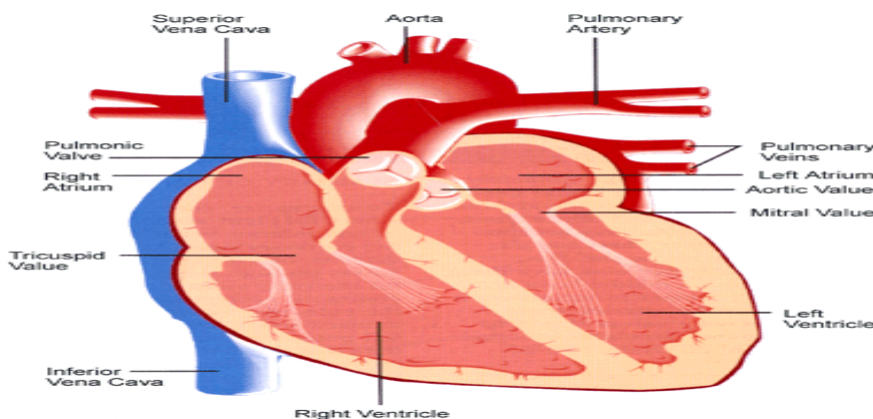
The normal resting **heart rate** is **65-75 beats per minute**. In athletes it may be as low as 40 beats per minute. In extreme athletic activity, the heart rate can go as high as 200/min. The heart **rhythm** may be **regular** or **irregular**. In an irregular rhythm (arrhythmia), there may be early 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.



Complete the conversation based on the case history presented in the above text.

Doctor: What seems to be the problem?

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
atrial
cardiac
heart
on
pitting
premature

output
failure
oedema
fibrillation
beats
effort
rest

Write the words a patient would use to describe the symptoms below.

- 1 dyspnoea
- 2 arrhythmia
- 3 orthopnoea
- 4 oedema

Complete the case report.

Case 13

A 60-year-old woman attended her GP's surgery complaining of breathlessness on (1) _____. This has been increasing over the previous eight months until it was producing problems at around 500 metres walking on the level. There was no history of chest pain. She had had several (2) _____ of fast (3) _____ which lasted 20-30 minutes and were associated with some (4) _____ of breath. She had noticed some (5) _____ of her ankles by the end of the day. This disappeared overnight.

Express your idea.

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