Heart disease - enlarged heart

Summary

- An enlarged heart isn’t a condition in itself, but a symptom of an underlying problem that is causing the heart to work harder than normal.
- Some of the many causes include coronary heart disease, idiopathic dilated cardiomyopathy, high blood pressure and heart valve disease.
- Treatment depends on the cause, but can include diet and lifestyle adjustments, medication and surgery.

The heart is a muscular pump about the size of a clenched fist. An enlarged heart isn’t a condition in itself, but a symptom of an underlying problem that is causing the heart to work harder than normal.

Older people are at increased risk of having an enlarged heart. Another name for an enlarged heart is cardiomegaly.

The range of underlying problems that can lead to an enlarged heart may be:

- pathological – linked to actual disease of the heart muscle
- physiological – linked to other causes that are overworking the heart muscle, such as high blood pressure or thyroid diseases.

Symptoms of an enlarged heart

In some cases, an enlarged heart is asymptomatic (has no symptoms).

When symptoms do occur, it may be because the heart fails to pump blood effectively and this leads to a syndrome known as congestive heart failure. Symptoms may include:

- breathing problems
- shortness of breath
- dizziness
- irregular heartbeat (arrhythmia)
- heart palpitations
- fluid retention.

Causes of enlarged heart

Some of the many causes of enlarged heart include:

- coronary artery disease – fatty deposits or plaques build up inside one or more of the coronary (heart) arteries. This constant ‘sitting’ is called atherosclerosis and it results in narrowing of the artery. This reduces the oxygen supply, which is the fuel for the pump
- **high blood pressure (hypertension)** – blood pumps with more force than usual through the arteries, which puts strain on the heart. Causes of high blood pressure include obesity and a sedentary lifestyle
- idiopathic dilated cardiomyopathy – disease of the heart muscle, the cause of which is unknown. Enlarged or ‘dilated’ heart is one of the most common types of cardiomyopathy. The most common symptom patients get with cardiomyopathy is shortness of breath and swelling of the ankles. Rarer symptoms include dizziness and chest pain
- myocarditis – an infection of the heart that is generally caused by a virus. A person may have a viral illness first and later have symptoms of congestive heart failure

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• heart valve disease – for example, a faulty mitral valve allows blood to flow backwards, which means the affected heart chamber has to contract with more force than usual
• cardiac ischaemia – reduced blood flow to the heart. This condition can cause heart pain (angina)
• previous heart attack – a weakened heart muscle may enlarge in order to keep up with the demands of pumping blood around the body
• thyroid disease – the thyroid gland regulates many metabolic functions. Untreated, a thyroid condition can lead to high blood pressure, high blood cholesterol levels, irregular heartbeat and enlargement of the heart
• obesity – carrying too much body fat is a risk factor for high blood pressure, which in turn can cause the heart to enlarge
• lack of exercise – leading a sedentary lifestyle is a known risk factor for a range of conditions, including coronary heart disease and high blood pressure
• old age – as we get older, our arteries lose some of their elasticity. This ‘stiffening’ of the blood vessels causes high blood pressure, which is a risk factor for enlarged heart.

Diagnosis of enlarged heart
An enlarged heart is diagnosed using a number of tests including:
• medical history – including a physical examination
• chest x-ray – this allows the doctor to see the overall shape and size of the heart and lungs
• echocardiogram – sound waves sent to a special machine present a picture of the beating heart, so the doctor can see the heart as its chambers contract and relax
• Doppler study – shows blood flow through the heart valves and evaluates whether the valves are functioning normally
• electrocardiogram – measures electrical activity in the heart and can assess heart rhythm and evidence of old infarction or ischaemia.

Treatment of enlarged heart
Treatment depends on the underlying cause but options can include:
• medications to stop the heart from enlarging any further
• addressing the underlying problem (for example through diet, stopping smoking, exercise and medication to help control high blood pressure, or surgery to replace a faulty heart valve)
• regular cardiovascular exercise
• adopting a low-fat diet
• dietary adjustments to reduce blood cholesterol levels
• frequent medical check-ups to make sure the treatments are working.

Where to get help
• Your doctor
• Cardiologist