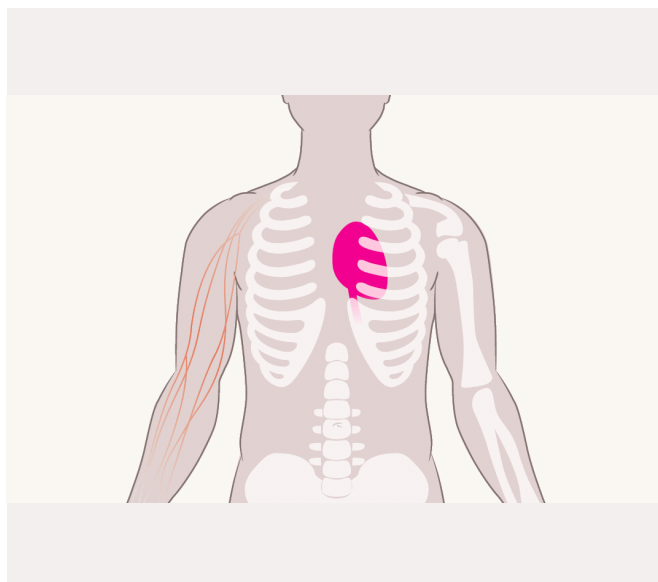


# Factsheet **The heart**

## Key points

- Unhealthy lifestyles and untreated HIV contribute to heart attacks, diabetes, stroke and high blood pressure.
- Symptoms can include tiredness, breathlessness, an irregular heartbeat and chest pains.
- If anti-HIV drugs are contributing to heart problems, it may be possible to switch to other drugs.



## **Functions of the heart**

The heart is a muscle about the size of a fist. It sits in your chest, slightly to the left-hand side. It pumps blood around your body. The right-hand side sends blood to the lungs to collect oxygen. The left-hand side sends blood rich in oxygen to the body (through the arteries) to ensure that the other organs, muscles and tissue have enough nutrients to function properly. The blood then returns to your heart through the veins. The heart gets its own blood supply from the coronary arteries, on the heart's surface.

## **Potential problems**

Heart disease develops when the heart's blood supply is blocked or interrupted by a build-up of fatty substances in the coronary arteries. Heart disease is the leading cause of death in the UK and worldwide.

Many of the causes of heart disease are linked to people's lifestyle.

A diet high in saturated fats (from animal products like red meat, butter, cheese and cream) can clog the arteries which supply the heart with blood. This means that the heart has to work extra hard to pump blood around the body. **Smoking**, being overweight and a lack of **exercise** can lead to the development of heart disease. High levels of **drug** and **alcohol** use can also contribute to heart disease. Although stress doesn't directly cause heart disease, how you deal with it may contribute to your risk, especially if you smoke, drink alcohol or over-eat to help you relax. These behaviours, over a period of time, can lead to heart problems including angina (chest pains), arrhythmias (irregular heartbeat), heart attack or **stroke**.

*"Basic tests involve checking blood pressure and pulse, and listening to the heart."*

Having other conditions such as [high blood pressure](#), high [cholesterol](#) and [diabetes](#) can increase the risk of developing heart disease (and these conditions are often caused by the same lifestyle factors). People with a family history of heart disease may be more likely to develop it themselves. Men are more likely to develop heart disease than women, and the risk increases with age. There is some evidence that having chronic [hepatitis C](#) infection can increase the risk of damage to the coronary artery.

There is evidence that people with HIV are at higher risk of high cholesterol and of cardiovascular (heart) disease than the general population. This risk is likely to increase the longer someone has been living with HIV, even if they are on [HIV treatment](#) and have an undetectable [viral load](#). However, the risk will increase faster with a high viral load and a low [CD4 count](#). So starting HIV treatment is an important way of keeping the risk of heart disease as low as possible.

Some research suggests that certain anti-HIV drugs may increase the risk of heart disease slightly. The benefits of effective HIV treatment usually outweigh these risks. But you may want to discuss this with your doctor when choosing an HIV treatment combination, especially if you have other risk factors.

## Symptoms of heart disease

[Tiredness](#), breathlessness, an unusual heartbeat (palpitations) and chest pains are common symptoms of heart disease. You may not have any symptoms at all before you are diagnosed with heart disease. For some people, the first symptoms are noticed when they have a heart attack. These can include pain or pressure in the chest, pain in the left arm, jaw, back, abdomen or shoulder, sweating, nausea or vomiting, lightheadedness and breathlessness.

If you experience any of these symptoms, it is important that you get medical advice as soon as possible. If you suspect you are having a heart attack, call an ambulance immediately. Sit and rest until the ambulance arrives. Chew an adult aspirin tablet (300mg) if one is easily available, unless you're allergic to aspirin or you've been told not to take it. (Don't move about to find an aspirin if there isn't one handy.)

**If you experience any of these symptoms, it is important that you get medical advice as soon as possible. If you suspect you are having a heart attack, call an ambulance immediately.**

## Tests

You will have some aspects of heart health monitored as part of your regular [HIV check-ups](#),

especially your cholesterol levels (measured by a blood test). Your doctor or another member of your healthcare team may also talk to you about other risk factors, especially if you smoke or have high blood pressure or diabetes.

You can also have your heart health checked by your GP (family doctor). People aged 40 to 74 will be invited to an [NHS health check](#) every five years, or you can see your GP if you are concerned. They can check your heart health and talk to you about how to lower your risk or manage any related conditions.

Basic tests involve checking blood pressure and pulse, and listening to your heart, as well as blood tests to measure cholesterol and other blood fat levels. If your doctor suspects that you are having heart problems, you are likely to be asked to have a number of other tests. You may have an electrocardiograph (ECG) test, which involves having sensors attached to points around the body to see how well the heart is supplying blood. You may also have an exercise ECG, which monitors your heart function while you walk or run on a treadmill for 10 to 20 minutes.

You can also wear a heart monitor for a period (usually 24 hours, but sometimes it can be longer), which checks the functioning of the heart over a day or more. A chest X-ray or scan may be done to see if there are any signs of damage to the heart.

## Treatment

A variety of drugs are available to treat heart problems. Heart disease can't be cured, but there are ways to manage it and reduce the risk of other problems.

Drugs are available to reduce cholesterol and high blood pressure. Blood thinners, such as aspirin or other drugs, can help prevent the blood clotting and causing heart attack or stroke. Drugs, such as beta-blockers, are used to slow the heart rate, or restore a regular beat.

Surgery may be necessary in some cases to repair or replace the arteries which supply blood to the heart.

Your doctor will also talk to you about lifestyle changes to reduce the impact of heart problems on your health and day-to-day life.

## Looking after your heart

Everybody can help keep their heart healthy by eating a [healthy, balanced diet](#). This includes having at least five helpings of fruit and vegetables a day, and reducing saturated fats, salt and sugar. Smoking, drinking excessively (particularly in binges), and recreational drug use (particularly cocaine and amphetamines) can all damage the heart. Not smoking, or stopping, will make a big difference to your heart health. Keeping your [alcohol consumption](#) within the recommended limits and [maintaining a healthy weight](#) will help.

Doing regular [exercise](#) that makes you out of breath and breaks a sweat regularly is important for heart health. There is advice available on the amount of exercise recommended on the [NHS Choices website](#). If you are unused to exercise or have heart problems, it is important to start gently or seek advice from your healthcare team.

Look after any other health conditions such as diabetes and take any prescribed medication at the right time and in the right way. If you think stress is contributing to any risk factors, talk to your GP or staff at your HIV clinic. They will be able to help with advice and referrals to other services if you think that would help.

## Find out more

**Nutrition** Information booklet

**Cholesterol** Simple factsheet

**Eight ways to look after your health** Basic leaflet with pictures