

A healthy heart for life

Are you at risk?

High cholesterol levels in the blood increase the risk of developing Coronary Heart Disease (CHD) by promoting the build up of fatty plaque in artery walls that can harden and narrow the arteries. This process is known as atherosclerosis. Nearly half of all deaths from CHD in the UK are thought to be caused by raised blood cholesterol. Two thirds of men and women in the UK have cholesterol levels that could be putting them at risk.

What is cholesterol?

Cholesterol is an essential building block for cell walls and is involved in the production of vitamin D, bile acids and some hormones such as testosterone and oestrogen. Your liver makes most of the cholesterol your body needs, although many foodstuffs contain some cholesterol, it is the type of fat you eat and the lifestyle you lead that will greatly influence both the amount and type of cholesterol made in your body.

Good and bad cholesterol

Cholesterol travels around in the bloodstream encased by proteins in particles called lipoproteins. There are two main types of lipoproteins that play a part in the furring up of arteries (atherosclerosis) and heart disease:

- Low Density Lipoproteins (LDL) carry cholesterol to where it is needed
- High Density Lipoproteins (HDL) return the cholesterol not needed by the body back to the liver

Problems occur when LDL cholesterol levels are high and HDL cholesterol levels are low. LDL is often referred to as 'bad cholesterol' because excess LDL cholesterol is likely to be deposited on the artery walls, a process called atherosclerosis. HDL cholesterol, on the other hand, is returned to the liver, away from the artery walls and so is known as 'good cholesterol'.

People more at risk of high cholesterol levels:

- ♥ Those aged 45-64
- ♥ Diabetics
- ♥ People with Familial Hyperlipidaemia
- ♥ Those who are overweight or obese
- ♥ People of South Asian origin

Two thirds of men and women in the UK have blood cholesterol levels of 5mmol/l or more, putting them at an increased risk of heart disease.

Excess LDL and low HDL cholesterol, especially if other risk factors for heart disease are present, can lead to atherosclerosis, causing the arteries to narrow and is the primary cause of heart disease.

Healthy heart cholesterol levels

Blood cholesterol is measured in millimoles per litre (mmol/l).

To reduce the risk of coronary heart disease the lower the cholesterol level the better but, in general, recommended levels for heart health are:

- A total cholesterol level below 5 mmol/l
- LDL cholesterol below 3 mmol/l
- HDL cholesterol above 1 mmol/l

Cholesterol levels tend to rise as we get older and, in women, levels are higher after the menopause. Occasionally, raised cholesterol levels can be caused by an inherited condition called Familial Hyperlipidaemia, but in most cases, they are a direct result of our diet, in particular the amount of saturated fat we eat. Blood cholesterol levels can be controlled by following a healthy heart diet, a more physically active lifestyle and if necessary, drug treatment.



Cholesterol checks at work

A 'healthy cholesterol' diet

Making a few simple changes to your diet can dramatically affect your cholesterol levels and heart health. Here are some ideas to help you make the necessary changes to your diet.

1. Check your fats:

Type of fat	The effect	Where is it found	What to do
Saturated fats	Increases total cholesterol and LDL cholesterol	Butter, cream, meat, lard, cheese, ghee, coconut and palm oil.	Avoid
Trans (hydrogenated) fats	Increase LDL cholesterol and decrease HDL cholesterol	Processed foods (cakes, pastry, hard margarines)	Avoid
Polyunsaturated fats	Lowers LDL and HDL cholesterol	Sunflower oil, fish oil	Limit
Monounsaturated fats	Can help to lower LDL without affecting HDL levels	Olive oil, rapeseed oil, walnut oil, avocados	Choose

Based on the effects different types of fat have on cholesterol levels, you can achieve the healthiest cholesterol levels by cutting down on saturated fats and replacing them with small amounts of monounsaturated fats to keep up the level of protective HDL cholesterol. Avoid trans fats.



2. Eat at least 5 a day

Consider how many fruit and vegetables you eat each day. Antioxidants naturally present in these will protect LDL cholesterol from being oxidised and consequently more easily deposited on the artery wall as atherosclerotic plaque. Eat at least 5 portions of fruit and vegetables every day.



3. Increase your fibre intake

As part of a low saturated fat diet, increasing your intake of fibre, in particular soluble fibre, can lead to healthier cholesterol levels. As much as 20-35g fibre a day may be good for your heart and arteries. Good sources of fibre include fruit and vegetables, cereals, beans and pulses.



Oats provide soluble fibre (beta glucan) which acts like a sponge during digestion, soaking up and removing cholesterol from the body. This can help to lower the blood cholesterol, so eating a diet containing oats, as part of a diet low in saturated fat and a healthy lifestyle, can help to maintain a healthy heart.