

Chest
Heart &
Stroke
Scotland



CHOLESTEROL



ESSENTIAL GUIDE

This Essential Guide is about cholesterol.

It explains:

- What cholesterol is
- The difference between high-density lipoproteins (HDLs) and low-density lipoproteins (LDLs)
- Why too much LDL cholesterol is harmful
- What you can do to reduce your cholesterol level if it is too high

What is cholesterol?

Cholesterol is a fatty, waxy substance mainly produced in your liver. Your body can also get cholesterol from some foods, like red meat and full-fat dairy products.

Your body needs cholesterol to make stable cells and organs. Cholesterol is also needed for digestion, and helps to make important hormones and chemicals like vitamin D.

There are two types of cholesterol, “good” and “bad”.

To be carried around the body, cholesterol combines with proteins in your blood. “Good” cholesterol combined with proteins makes **high-density lipoproteins (HDLs)**, and “bad” cholesterol combined with proteins makes **low-density lipoproteins (LDLs)**.

Types of cholesterol

Not all cholesterol is created equal. The main difference between “good” and “bad” cholesterol is what kind of lipoprotein they form in your blood.

Cholesterol which forms HDLs is beneficial to your body, and helps you to break down and recycle your LDL-linked cholesterol.

Too much LDL-linked cholesterol can build up along the walls of your arteries. These patches can narrow or even block your arteries, making it difficult for blood to pass around your body. Depending on which arteries are affected, this can lead to a heart attack or stroke.

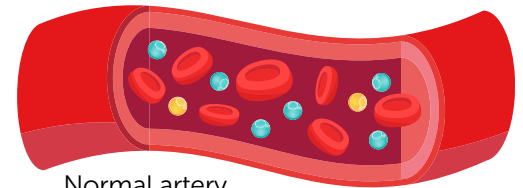
To reduce the risk of these health problems, you should aim to have a low level of LDLs in your blood, and a higher level of HDLs.



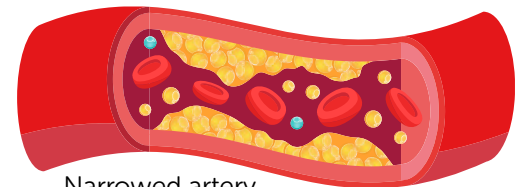
High-density lipoprotein
“Good cholesterol”



Low-density lipoprotein
“Bad cholesterol”



Normal artery



Narrowed artery

What causes a build-up of LDL cholesterol?

Some people naturally produce too much cholesterol, or a high proportion of LDL cholesterol. This is more common if there is a family history of high cholesterol (hypercholesterolaemia).

Cholesterol is also found in food. HDL ("good") cholesterol is found in foods like eggs, liver, and oily fish. LDL ("bad") cholesterol comes from foods high in saturated fat. These include: fatty meats, dairy products, palm and coconut oil, and processed foods. Eating too much of these kinds of foods can result in high levels of LDL cholesterol in your blood.



How do I know if I have high cholesterol?

If your doctor is concerned about your cholesterol level, you will need a blood test. This measures the levels of HDL and LDL cholesterol, as well as other fatty substances (called triglycerides), in your blood.

The doctor might also look at other risk factors like your age, sex, weight, blood pressure, family history, and whether you smoke. Together with the blood test results, this information is a useful way to find out whether you are at a high, medium, or low risk of heart disease or stroke.



If you have a high risk of heart disease or stroke, your doctor may prescribe you medicine to lower it.

Medication

If you do have high cholesterol, your doctor may prescribe you a medicine called **statins**. Statins reduce the amount of cholesterol made by your liver, and therefore help to reduce the overall level of cholesterol in your blood.

If your cholesterol levels are normal, you may still be at risk of developing heart problems or stroke for other reasons. If this is the case, your doctor may recommend you take medication to keep your cholesterol low and further reduce the risk.



Taking action

If you need to reduce your cholesterol, there are plenty of actions you can take to help.

1 Eat well



One of the most important things you can do is cut down foods high in saturated fat. This includes fatty meats, full-fat dairy, oils, cakes, and hard cheese.



Choose foods low in saturated fats, like fish, nuts, olive oil, and lean meat like chicken.



Cut down on highly processed foods, like ready meals, cured meats, and crisps. If you can, cook food from scratch with fresh ingredients.



Yoghurts, especially probiotic yoghurts, can lower your cholesterol.

2 Be active



Aim for at least **30 minutes of moderate activity** (exercise that increases your breathing and heart rate) on **5 or more days a week**. This could be 30 minutes in one go, or broken up into shorter sessions.



You can replace this moderate activity with **75 minutes of vigorous activity a week** instead.



Aim to do **strength exercises** (like using weights, carrying groceries, or stretching) on **2 or more days a week**.



It can be easier to keep active if you choose activities you enjoy. This might be anything - for example, walking, gardening, yoga, or dancing.

3 Stop smoking

Smoking increases the level of “bad” LDLs in your blood, and lowers the level of “good” HDLs.

Smoking also increases your risk of heart disease, stroke, and lung damage in other ways.

It doesn't matter whether you smoke cigarettes, roll-ups, cigars, or a pipe: the impact of smoking tobacco is the same regardless.



Support is available to help you quit. Ask your doctor or nurse for information, or call Quit Your Way Scotland on **0800 84 84 84**.



4 Be Alcohol Aware



Alcohol increases the level of "bad" LDLs in your blood.



Stay within the recommended limit of no more than 14 units of alcohol per week, spread over 3 or more days.



Try to have at least two alcohol-free days every week.

For advice on how to reduce your alcohol intake, go to www.drinkaware.co.uk or phone Drinkline for free on **0300 123 1100**.



One unit of alcohol is equal to:



218ml

Standard
4.5% cider



76ml

Standard
13% wine



25ml

Standard
40% whisky



250ml

Standard
4% beer



250ml

Standard
4% alcopop

Myths and facts



MYTH: Using margarine instead of butter helps to lower cholesterol.



FACT: Margarine contains trans-fats which can increase the level of bad cholesterol in your blood.



MYTH: Only older or overweight people have high cholesterol levels.



FACT: Anyone can have high cholesterol - it doesn't matter how old they are, or how much they weigh. Being overweight does increase the risk of high cholesterol, but you can have high cholesterol without being overweight, especially if you have a family history of coronary heart disease.



MYTH: I feel fine, so my cholesterol level must be okay.



FACT: High cholesterol often has no symptoms. Some people don't know what is wrong with them until they have a heart attack or stroke. It is important to have regular check-ups with your nurse or doctor.



MYTH: Cholesterol is always bad and I should avoid it totally.



FACT: While too much cholesterol is bad, especially too much LDL cholesterol, your body needs some cholesterol to work properly. You should consult with your health professional before going on a strict low-cholesterol diet.

Our publications are available for free to anyone in Scotland who needs them. Go to www.chss.org.uk/publications for all our resources, including other Essential Guides in this series.

For free, confidential advice and support from our **Advice Line nurses**, call: 0808 801 0899 (Mon-Fri 9.30am-4pm), text: NURSE to 66777 or email: advice@chss.org.uk.

Across Scotland, over one million people – that's one in five of us – are living with the effects of a chest, heart or stroke condition. We are here to help everyone who needs us. But we need your support to do this. Go to www.chss.org.uk/supportus to find out how you can help more people in Scotland.

If you would like this resource in an alternative format, please contact our Advice Line nurses.

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NO LIFE HALF LIVED

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