



## **Cholesterol FAQs**

### **Q Why do we need cholesterol?**

Every cell in your body needs an energy supply to do its work.

Just as your home and workplace need energy.

The most efficient way to send the energy round the body is to send it as 'fats' - cholesterol and triglycerides.

All fats are lipids- and that simply means that they don't dissolve in water (or blood). So they have a transporter- either some protein or some sugar- to carry them to the cells of the body that need it.

You can think of your blood vessels like roads, and cholesterol and triglycerides are like vans delivering goods to shoppers (your cells).

### **Q. What is cholesterol?**

Cholesterol is a waxy, fat-like substance found in all the cells in the body. It is needed to make hormones, cell walls, Vit D and substances that help us digest food.

When you have a blood test to 'measure cholesterol' you are finding out just how much cholesterol is travelling round your body at the time of the blood test. Think of it like a traffic survey.

### **Q Where does cholesterol come from?**

You eat some (oils, butter, cheese, meat, eggs)

Some cholesterol-containing foods are healthier- cause less damage to the body- than others. From this we get 'good fats' and 'bad fats'.

Your body makes some from fat, sugar and protein that you eat.

### **Q OK. But it's not just about Cholesterol... I've also heard about HDL, LDL and Triglycerides.**

Cholesterol is essential for every cell, it doesn't dissolve in blood- so the body wraps it up with tiny bits of protein in small packages: these are called lipoproteins. There are bigger lipoproteins and small lipoproteins. (think about delivery vans on the road, big and small). Those are your LDL (low density lipoproteins), HDL (high density lipoprotein) and Triglycerides- all the numbers that get reported in a cholesterol blood test.

### **Q And I've heard that some cholesterol is good and some is bad.**

LDL cholesterol is often thought of as 'bad' cholesterol- it is the delivery system, sending out cholesterol from the liver to every cell in the body. If there is too much LDL, it gets 'parked' at the side of the road- in your arteries- which, over many years, can lead to blockage, and heart attacks, and strokes.

HDL is often called ‘good cholesterol’. Some HDLs are the ‘recycling lorries’ bringing left-over cholesterol back to the liver. On its way back to the liver it is possible for it to collect some of the cholesterol clogging up arteries.



LDL

Triglycerides

HDL

However, **no type of cholesterol is totally good, or totally bad.**

We need some of each.

The problems start when we eat more food (calories) than we need.

Because our bodies don’t like to waste any energy- in the past, humans had times when food was scarce, when the harvest failed, or in a drought. Or when the hunters failed to catch food.

So the human body is an expert at storing any surplus food- as fat.

And that is where the problems start, because the first place the excess fat is stored is ‘at the roadside’- in our arteries.

### Q. So cholesterol is about what I eat?

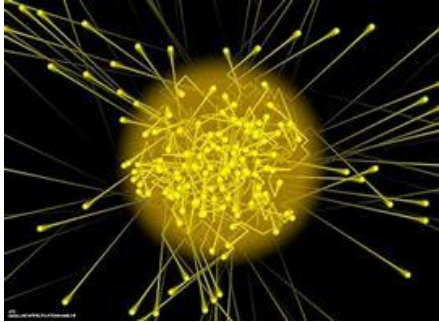


It’s not **just** about what you eat. However nutrition and lifestyle are probably the most important factors in both LDL and HDL.

Eating too much food raises the LDL. Food that contains a lot of saturated fat raises it even more- processed meat, red meat, full-fat dairy. And a high LDL is not good for heart health.

However, if we can increase HDL- the recycling system- that is good for the heart and blood vessels. You can do that by eating more fibre- in fruit, vegetables, nuts, legumes. And *by exercising, reducing stress and getting a good night’s sleep.*

## Q. And what about Triglycerides?



Triglycerides are little bundles bursting with energy. Tri (three) fat molecules, tied to a glycerol (sugar) molecule for transport through the blood stream. When you eat, anything that is not needed immediately is turned into triglycerides. Think of them as bags of food for our cells.

However, while we all need food, it's important that we get the right quantity. It's not good to over-cater.

And if your Triglycerides are raised, it generally means that you are eating more food than your body needs.

**A word of warning-** if you reduce the amount of food that you are eating and you manage to lose weight but your Triglycerides remain high- make sure you talk to your doctor about it as you may need to have some further tests and consider medication.

[How it's made: Cholesterol production in your body - Harvard Health](#)

<https://www.heartuk.org.uk/cholesterol>