

Prediabetes online programme



Waterside PCN

Created by the Waterside Primary Care Network
Health and Wellbeing Team

Some information taken from: [diabetes.org.uk](https://www.diabetes.org.uk)

Part 6 – Understanding Cholesterol

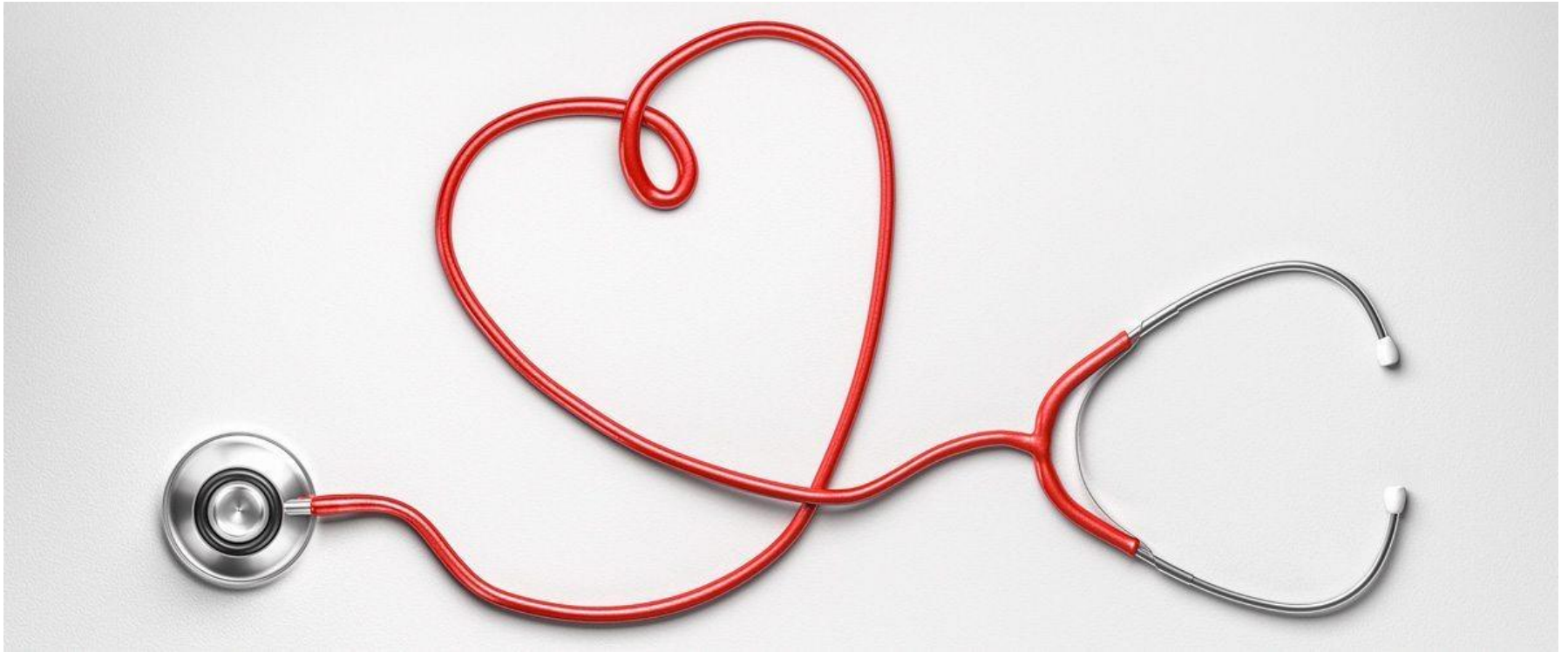
Part 6 content:

- Your cholesterol levels
- Good and bad cholesterol
- What causes high cholesterol
- How to get your cholesterol level down
- Focus of the week



Waterside PCN

Let's focus on cholesterol and fats





Cholesterol

What is Cholesterol?

Cholesterol is type of blood fat (also known as Lipids).

The liver makes a total of at least 80% of cholesterol naturally in the body.

What is cholesterol?

Cholesterol is a fatty substance in our blood, which is produced naturally in the liver.

Everyone has cholesterol. We need it to stay healthy because every cell in our body uses it. Some of this cholesterol comes from the food that we eat.

Different types of cholesterol

There are two main types of cholesterol – one is good and the other is bad.

Having too much bad cholesterol can cause problems. It can clog up your arteries, the blood vessels that carry blood to your major organs.

A person's hands are shown holding a bright red, glossy heart. A white ECG (heart rate) line is overlaid on the image, passing through the heart. The background is a soft-focus image of a person in a light blue shirt. The overall theme is health and heart care.

What are the health risks?

If the arteries that carry blood to your heart get damaged and clogged, it can lead to a heart attack.

If this happens in the arteries that carry blood to the brain, it can lead to a stroke.

There are different types of cholesterol and they mean different things for your health.

Cholesterol is carried in your blood by proteins.

When cholesterol and proteins combine, they are called lipoproteins.

What types of cholesterol do we have?

LDL: Low density lipoprotein/non-HDL cholesterol (bad cholesterol)



It delivers cholesterol from the liver to cells around your body. If you have too much it can clog up in the arteries and raise your risk for heart disease and stroke.

HDL: High density lipoproteins/HDL cholesterol (good cholesterol)



It takes cholesterol that you don't need back to the liver where it is broken down to be passed out of your body. This is known as good cholesterol because it gets rid of bad cholesterol from your blood vessels.

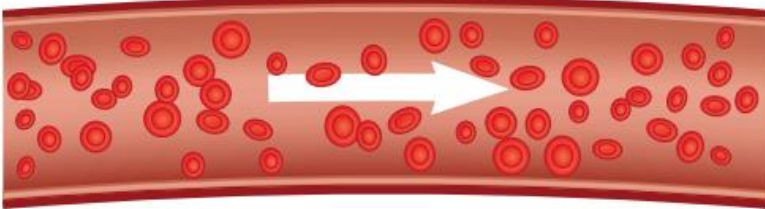
**Too much
bad
cholesterol**

If you have more bad cholesterol in your blood than you need, it gets stuck to the walls of the arteries.



This makes it harder for blood to flow through, which can cause a heart attack or stroke.

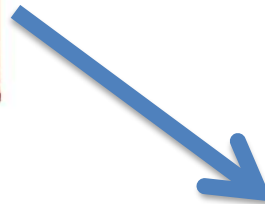
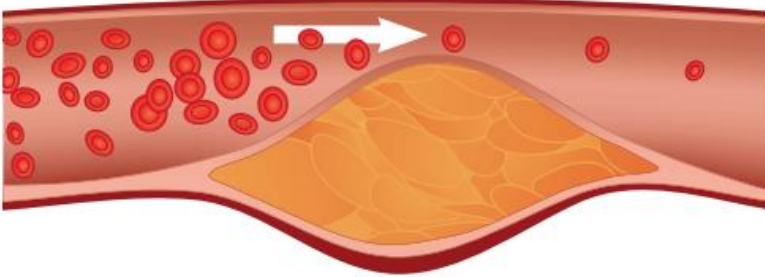
Normal Artery



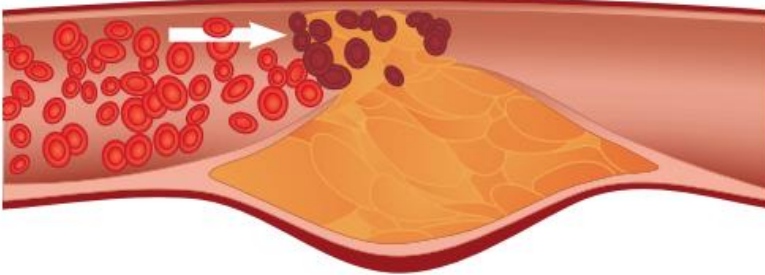
Arteries distribute oxygen-rich blood to your body.

Arteries, part of your circulatory (cardiovascular) system, are the blood vessels that bring oxygen-rich blood from your heart to all of your body's cells. They play a crucial role in distributing oxygen, nutrients and hormones throughout your body

Atherosclerosis/ Plaque Buildup



Atherosclerosis/ Plaque Buildup with Blood Clots



- **Poor blood circulation**
- **Increase blood pressure**
- **Heart attack/ stroke**
- **Blood clots**
- **Narrow arteries**
- **Harden arteries**

What are the functions of Cholesterol in the body?

It aids in the production of sex hormones.

It's a building block for human tissues.

It assists in bile production in the liver.

What causes high cholesterol?

Anyone can get high cholesterol and it can be caused by many different things. Some things we can control like lifestyle habits, others we can't.



If you take care of the things you can control, you'll help lower your risk of heart and circulatory disease.

How to get your cholesterol level down

Changing
what you eat

Reduce how
much alcohol
you drink

Being more
active

Stop smoking

Which types of fats have you heard of?





MONOUNSATURATED FATS

Monounsaturated fats can help reduce bad cholesterol levels in your blood which can lower your risk of heart disease and stroke.

They also provide nutrients to help develop and maintain your body's cells.



POLYUNSATURATED FATS

Polyunsaturated fat is a type of dietary fat. It is one of the healthy fats, along with monounsaturated fat.

Polyunsaturated fat is found in plant and animal foods, such as salmon, vegetable oils, and some nuts and seeds.



SATURATED FATS

Saturated fat is the kind of fat found in butter, lard, ghee, fatty meats and cheese.

Eating a diet high in saturated fat is associated with raised levels of non-HDL (bad) cholesterol.

This is linked to an increased risk of heart and circulatory disease.



Explore fats and cholesterol in greater detail

<https://www.nhs.uk/live-well/eat-well/different-fats-nutrition/>

Focus of the week

What have you learnt about fats?

What types of fats are you eating?

Think about the foods you are buying and the types of fat they contain.

Are you eating too much food containing bad fat?

Do you eat any foods containing good fats?

Ask yourself ... do I need to make any changes?