

# Managing your cholesterol levels

## DIET information sheet

Cholesterol is a fatty substance which is produced naturally in the liver. It is used to make certain hormones and vitamin D, as well as bile acids, which help digest and absorb dietary fat. However, having high levels of cholesterol can increase the risk of cardiovascular disease - heart attacks, stroke, etc.

There are different types of cholesterol: HDL, LDL, VLDL, IDL, triglycerides and others  
In your recent blood test you will find the following cholesterol markers:

- HDL - High density lipoprotein - it has a protective effect on blood vessels and helps prevent cardiovascular disease (within a specific range).
- LDL - Low density lipoprotein - it is associated with a higher risk of cardiovascular disease
- Non-HDL - Non-high-density lipoprotein: is calculated by subtracting your high-density lipoprotein (HDL) cholesterol from your total cholesterol - it is the combination of the types of cholesterol (including VLDL, IDL and Lipoprotein(a) ) When there is too much of non-HDL, it can build up in the arteries and veins and potentially cause a buildup of atherosclerotic plaques.

Having high levels of cholesterol usually has no symptoms for most people. Rarely, fatty, cholesterol-rich deposits are visible under the skin (called *Xanthelasma/ Xanthoma*), or you may have a white ring around the cornea (*arcus senilis*).

## Diet and high cholesterol

### Watch out for the following foods:

#### ① Bad fats - Trans-fat/ partially hydrogenated fat:



Come from either industrial or natural sources:

- industrially, they are created by adding hydrogen to vegetable oils. When heated and then cooled off these oils raise LDL cholesterol and non-HDL cholesterol.
- naturally, they can be found in meat and dairy products from ruminant animals. These foods are good to eat in moderation, when they are cooked from scratch.
- deli meats, processed meat - avoid breaded fish/ chicken, salami, chorizo, sliced meats, etc.

#### ② Carbohydrates:



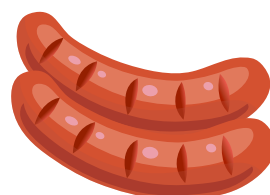
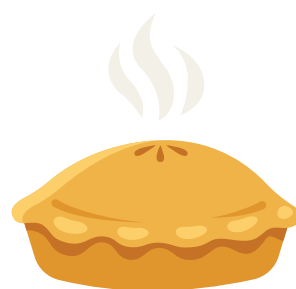
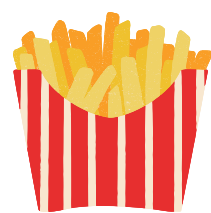
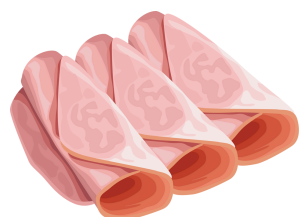
- Added sugars in food can reduce HDL and increase triglycerides. On food labels, look out for ingredients like honey, syrup, corn sweetener, high-fructose corn syrup (HFCS), or any words ending in 'ose' (like glucose and fructose), or other types of added sugars.
- Refined carbohydrates, such as white rice, white bread, potatoes, potato products, noodles - eating too much of these foods increases your triglycerides and LDL levels.

# What to eat?



## Eat less bad fat and sugary foods:

- Reducing high trans-fat food, for example, fried foods, baked goods and margarine
- Reducing ultra-processed foods such as bacons, sausages and crisps
- Cutting down sugar and refined carbohydrates such as sweets, desserts, drinks, breakfast cereals and white flour products.



## Eat more high fibre foods:

- Aim for at least 3-5 portions (80g is 1 portion) of **vegetables** plus 2 fruits per day
- Switch to **wholegrain** varieties of bread, oat, pasta and rice
- Choose other **high fibre** foods such as pulses (lentils, beans, chickpeas), oats
- Eat in abundance healthy fats - raw nuts and seeds, avocados, extra virgin olive oil, fatty fish, such as trout, anchovies, sardines, mackerel, salmon

