Know Your Number
Lower Your Number

Your guide to understanding cholesterol
We all know that the healthier you are, the more active a life you can lead. So whether it’s playing football in the park with the children, attending those salsa dancing classes or just wanting to look good – to get the most out of life you need to keep fit and eat a healthy, balanced diet.

Eating healthily doesn’t mean keeping to a strict diet that doesn’t contain any treats! However, most experts believe in the old saying ‘everything in moderation.’ A well-balanced diet includes moderate amounts of milk and dairy products, meat, fish or vegetarian alternatives and limited amounts of foods containing fat or sugar. This means making sure that you’re not eating too many high-fat treats such as chocolate, crisps and fried foods – which, if eaten in excess, could not only result in weight gain but can also be bad for your health – and in particular your heart.

There are lots of other ways you can help keep your heart healthy such as taking regular exercise, not smoking, avoiding too much stress and drinking alcohol in moderation. Another simple way to help maintain a healthy heart is lowering your cholesterol levels as seven out of 10 people in the UK have cholesterol levels above the ideal. The good news is that there are some very simple steps everyone can take to keep their cholesterol at the right level and this leaflet will help explain how you can do this.

Top tip: Become more physically active
Cholesterol is a fatty substance that is found naturally throughout the body as it is used to make body cells, hormones and bile.

What is cholesterol?
Cholesterol is a fatty substance that is found naturally throughout the body as it is used to make body cells, hormones and bile.

While a small amount of the cholesterol in our bodies comes from cholesterol present in foods (such as liver, eggs and kidneys), most of it is made by our liver from the saturated fats that we eat such as high fat meats, sausages, cheese and butter. Cholesterol is then taken from the liver, in the blood stream, to the parts of the body where it is needed.

The low down on good and bad cholesterol
You may have heard of the terms ‘good’ and ‘bad’ cholesterol. This has come about from the way cholesterol is carried around in the body:

Low Density Lipoproteins (LDL) – transports cholesterol from the liver to the body tissues, and is often termed the ‘bad’ cholesterol.

High Density Lipoproteins (HDL) – takes cholesterol away from the tissues to the liver to be disposed of and so is often considered the ‘good’ cholesterol.

It is important to get the right balance of ‘good’ and ‘bad’ cholesterol, or HDL to LDL, aiming to keep the LDL levels at a healthy level and maintaining a higher level of HDL. Most people in the UK have levels of LDL cholesterol that are too high.

Other factors affecting your cholesterol levels are:
- Family history of high cholesterol
- Age
- Gender
- Obesity
- Reduced physical activity

How is cholesterol measured?
Measuring cholesterol levels or ‘numbers’ involves a simple blood test. This can be done either through a full blood test (which measures LDL and HDL levels, as well as total cholesterol) or a pinprick test; however, these tests should always be carried out by a GP or trained healthcare professional rather than using a self test kit. This is because the results need to be interpreted as part of an overall medical assessment with other factors being taken into account.

Know Your Number, Lower Your Number
Medical experts agree that to help maintain a healthy heart our total cholesterol levels should be less than 5.0mmol/l, with LDL levels being less than 3mmol/l. Around 70% of adults in the UK have a total blood cholesterol above this number, with the average cholesterol level for men being 5.5mmol/l and women, 5.6mmol/l.
While genetics play a part in determining your cholesterol levels, adopting a healthy diet and lifestyle is important to help lower your number. This does not mean eating special foods, following any ‘fad’ diets, or giving up on the foods that you love. Instead, it is about getting the balance right.

Following a few guidelines will go a long way in helping to achieve this healthier lifestyle:

2. Become more physically active. Regular physical activity can help increase the beneficial HDL cholesterol levels, as well as help you to reach or maintain an ideal weight. You should aim to do physical activity for about 30 minutes on five or more days of the week – this does not mean, however, that you need to sweat it out in the gym every day! Physical activity obviously includes exercise, such as playing sport or going to the gym, but it can also come about by being more active in daily activities, such as choosing to walk instead of driving or taking the bus, walking up stairs instead of taking the lift.
3. Eat a well balanced diet which includes:

   - Reducing your total fat intake, but especially saturated fat. Replace some of the saturated fat with unsaturated fat. Fat is divided into two groups, saturated and unsaturated. Saturated fat is found mainly in foods such as high-fat meats, cooking fats and spreads including lard and butter, as well as whole milk and cheese. Unsaturated fat is found mainly in foods from plant and fish sources, such as sunflower oil, olive oil, and oily fish including salmon.

As well as fat being a concentrated source of calories so having a harmful effect on your weight, the more saturated fat you consume the more cholesterol can be produced by the liver.
Practical Tips

- Choose reduced fat dairy products e.g. semi-skimmed milk, half fat cheddar cheese, low fat yoghurts, low or reduced fat spreads
- Trim the fat from meat and skin from chicken and replace some of the meat with pulses (kidney beans, chick peas, lentils) in meals such as casseroles, soups, pasta dishes and curries
- Avoid cooking methods that use fat e.g. frying; instead try grilling, steaming, poaching, microwave cooking and ‘dry’ baking
- Limit your intake of high fat meats such as sausages, pies and burgers, instead choose lean meats, poultry and fish
- Always check the nutrition labels for ready prepared meals or foods you eat in large amounts. As a rough guide:
  i. 20g of fat / 100g of food is high
  ii. 5g of saturated fat / 100g of food is high, less than 1.5g of saturated fat / 100g is low
- Replace some saturated fats with small amounts of monounsaturated or polyunsaturated fats. This will help improve the ratio of HDL to LDL cholesterol
  i. Use small amounts of margarine made from vegetable oil such as sunflower, rapeseed or olive oil
  ii. Eat fish at least twice a week, one portion of which should be oily (e.g. salmon, mackerel, herrings, sardines, pilchards)
- Eat more starchy foods, especially whole grain varieties. These can help replace the fat in your diet and contrary to popular belief they are not high in calories as long as fat or sugar is not added to them
  i. Starchy foods like whole grain cereals, bread, rice, potatoes, pasta, yam and plantain should be the main part of meals and snacks
  ii. Slice bread thickly and spread toppings such as butter, margarine and jam thinly
  iii. Choose whole grain varieties of breads and breakfast cereals such as Shredded Wheat. These have the benefit of containing dietary fibre which help keep you feeling fuller for longer
  iv. Potatoes can be microwaved, boiled or baked and can also be used to thicken stews, casseroles and soups

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Lowering cholesterol is one way to help keep your heart healthy. Other steps you can take to achieve a healthy lifestyle include:

1. Quitting smoking
2. Reducing stress and anxiety levels
3. Following a 'cardio protective' diet

What is a cardio protective diet?
A cardio protective diet can help to keep your heart healthy. As well as reducing your fat intake, especially foods containing saturated fat, eating at least two portions of fish a week and basing your diet around starchy foods, there are a number of other simple changes you can make to your diet:

Include more fruit and vegetables in your diet, aiming for at least five portions a day:
- Fruit and vegetables are low in fat and calories, as well as being a good source of fibre. In addition, they contain a variety of essential vitamins, minerals and other ‘antioxidants’
- Choose a colourful selection of fruit and vegetables. Fresh, frozen, dried, canned or puréed are all suitable
- A small glass (150ml) of fruit juice can count as one portion, but only choose this once a day
- Chop a banana or dried fruit onto your breakfast cereal
- Although potatoes are a good source of starch they do not count in the ‘5 a day’ advice

Drink alcohol sensibly
Moderate drinking at one – two units / day can be beneficial to health, but drinking over four units a day for men and three units a day for women is not advisable. One unit is equivalent to one small glass of wine, half a pint of ordinary strength beer or one pub measure of spirits.

Cut down on your salt intake
Currently in the UK we are consuming too much salt in our diets, around 9g/day; experts recommend that we should be aiming for less than 6g/day. Salt is made up of sodium and chloride and it is the sodium in salt that has been linked to increased blood pressure.

- The majority of our salt comes from processed foods, so look out for lower salt alternatives
- Get your taste buds accustomed to less salt by cutting down on the amount used in cooking and at the table
- Try using herbs, spices, lemon juice and garlic for flavouring
- Try a healthy whole grain breakfast like Shredded Wheat which has no added salt or sugar
The most common cause of high cholesterol levels in the UK is as a result of eating too much fat. In fact, just by eating healthily you can reduce blood cholesterol levels by 5–10%.

**Dispelling cholesterol myths**

*The only way to reduce cholesterol is with drugs*

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*High cholesterol is only a hereditary condition*

For some people there is a genetic condition, which results in exceptionally high cholesterol levels. However, for most people diet and lifestyle play the major role.

*Too many eggs raise cholesterol levels*

A small number of foods in our diet are particularly high in cholesterol including eggs, liver and kidneys. On the whole these foods do not usually make a big contribution to blood cholesterol levels; although to be on the safe side, the recommendations for people who have raised blood cholesterol is to limit their egg intake to 2–3 a week! A bigger impact can be made by eating a diet low in saturated fat.

**Top tip**: Include more fruit and vegetables in your diet.