

Lipid Lowering Diet

Dietary advice for patients with raised lipids.

Information for Patients

What are Lipids and how do they affect my health?

Lipids are fat-like substances, which are used by our body's cells for energy.

Your doctor or consultant would normally monitor your lipid levels by completing a blood test. You may have heard of the two most commonly known lipids – Cholesterol and Triglycerides.

Your total cholesterol is made up of two different types of cholesterol:

1. HDL (High density Lipoprotein) a 'good' cholesterol that can be beneficial to the body in the correct amounts.
2. LDL (Low Density Lipoprotein) a 'bad' cholesterol that can be harmful to the body in excess amounts.

When your total cholesterol, LDL cholesterol and triglyceride levels exceed normal ranges they can increase your risk of Coronary Heart Disease, Stroke, and Cardiovascular Disease. This increases the risk of small fat deposits settling along the walls of your arteries.

This can cause narrowing of your arteries, meaning less blood and oxygen can pass through. It is similar to the way that a lane closure on a motorway or tunnel can restrict the flow of traffic.

Simple changes to your diet and lifestyle can reduce the risk of the build-up of fatty deposits, and reduce your overall risk of associated health complications.

How can I reduce my risk of health complications?

Dietary changes can play an important role in reducing your lipid levels to within a normal range, and are beneficial for your long term health. It is also important to remember that there are a number of other factors that can reduce your risk of health problems (heart disease, stroke etc.) associated with high lipids. Here are some of the changes that can be made to further reduce any risks:

- 1. Increase physical activity levels** – Current guidelines recommend 30 minutes of moderate activity 5 days per week. This may vary depending on the amount of exercise you can tolerate, or your medical background.
- 2. Stop smoking** – You can get advice on how to stop smoking from your practice nurse or pharmacy. There is also some useful contact information at the back of this book.
- 3. Limit your alcohol intake** – Excess alcohol intake has direct links to liver complications, as well as the potential to increase your lipid levels.
- 4. Make time to relax and relieve stress** – A brisk walk around the block not only contributes to your daily activity levels, but can improve your mental well-being.

The above changes are recommended alongside the dietary advice in the remainder of this booklet.

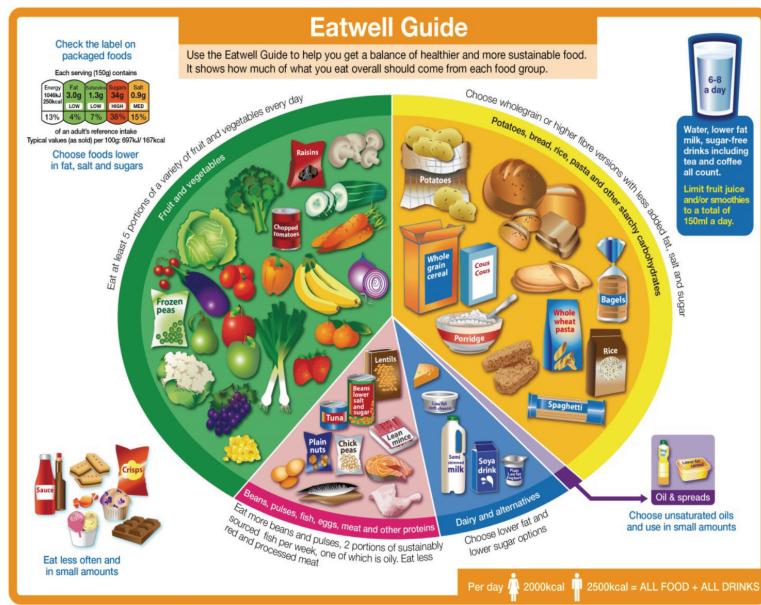
What is a Healthy Diet?

Your dietitian will provide evidence based advice regarding healthy eating, and aim to answer any questions you may have about your diet.

The Eatwell guide devised by the government and the Department of Health provides an overview of the types and portions of food that should be included in your diet.

Main goals of the Lipid Lowering Diet

- Aim to establish a regular meal pattern of three meals a day. Skipping meals or eating irregular meals can lead to excess snacking, poor choices (a lack of lipid reducing foods), and potentially limit weight loss, (if this is your goal).
- Include a starchy carbohydrate portion at each meal e.g. potato, rice, pasta, bread, cereals. These should make up roughly one third of your daily intake. Choose high fibre options where possible such as wholemeal/whole wheat/ whole grains, granary or seeded.
- Limit your intake of red and processed meat e.g. Sausages, bacon, beef, lamb and red mince. Choose leaner alternatives such as turkey mince or chicken, or try meat free protein sources such as beans, low fat cottage cheese, quinoa, lentils and pulses.



Source: Public Health England in association with the Welsh government, Food Standards Scotland and the Food Standards Agency in Northern Ireland

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- Eat at least three portions of fish per week, including two portions of oily fish.
- Aim to include 5 portions of fruit and vegetables daily.
- Choose reduced or low fat dairy products.
- Limit food and snacks higher in saturated fat and sugars.
- Limit salt intake by cutting down on the addition of salt onto food and during cooking.
- Aim to drink 6-10 glasses of sugar free, non-caffeinated liquid per day.
- Do regular physical activity.

Types of Fat

It is important to note that not all fats are 'bad', and certain fats, when consumed in small amounts, can be beneficial.

There are four types of fat:

1. Saturated fats

These fats will raise your total cholesterol and 'bad' LDL cholesterol. They are mainly found in animal products such as butter, cheese, cream, red meats and in processed snacks such as crisps, chocolate and biscuits.

2. Trans Fats/Hydrogenated Fats

These fats will also raise your total cholesterol and 'bad' LDL cholesterol. They are found mainly in margarines, processed snacks and foods, as well as fast food and takeaways.

3. Polyunsaturated Fats

These fats in the right amounts can help reduce cholesterol. They are mainly found in oily fish e.g. kippers, mackerel, sardines, herrings and pilchards. They are also found in vegetable oils.

Oily fish can be fresh, tinned, or frozen. If you are having a tinned option of any of the above, use those that are tinned in a sauce or spring water instead of oil or brine.

Please note that tinned tuna does not contain a significant amount of omega-3 oil, and only fresh or frozen tuna will contribute to your two weekly portions.

4. Mono-unsaturated Fats

These fats in the right amounts can also help reduce cholesterol. They are mainly found in rapeseed and olive oil.

As monounsaturated and polyunsaturated fats are better for your heart, it is important to include a small amount in your diet.

Please note that all fats contain the same amount of calories, therefore remember to use them sparingly if you are monitoring your calorie intake.

Ways to Reduce Your Fat Intake

- Aim to use less butter or margarine. Try a low fat spread or an olive oil based spread.
- Instead of frying, try other cooking methods such as grilling, baking, dry roasting, slow cooking or poaching.
- Trim visible fat off the meat.
- Limit processed snacks such as crisps, nuts, savoury snacks e.g. pork pies.
- Change to a low fat salad dressing, light or half fat mayonnaise.
- Use low fat dairy products such as semi-skimmed or skimmed milk, low fat cheese (Edam, cottage cheese, low fat mozzarella, low fat ricotta).
- Choose tomato or vegetable based pasta sauces, rather than creamy or cheese based sauces.
- Use low fat options of yoghurts – however, be aware that low fat products may be higher in sugar.

Sugar

Excess sugar in your diet can cause your triglyceride levels to rise, and therefore increase your risk of health complications.

How to limit your sugar intake

- Avoid adding sugar to foods – Try using an artificial or natural sweetener instead e.g. Splenda™, Canderel™, Sweetex™, Stevia™. These can be added to cereals, hot drinks or used in cooking as desired.
- Choose sugar free, or 'Diet' options when choosing drinks such as cordial or fizzy pop. Also be aware that natural fruit juices can also contain large amounts of natural sugar.
- Limit your intake of 'treat' foods such as cakes, biscuits, sweets and chocolate. It is important to see these as treats and not as part of a daily balanced diet. Be aware that these foods will also be high in saturated fat, as discussed in the previous section.
- Use jam, marmalade, honey and syrup sparingly. Try using reduced sugar options as an alternative.
- Try lower sugar desserts such as custard, or rice pudding. If you are adding fruit, use either fresh or tinned fruit in natural juices rather than in syrup. Sugar free jelly can also be used to add some variety into desserts.

Salt

Consuming too much salt can contribute to raised blood pressure, and increase your risk of cardiovascular disease. It is recommended we eat no more than **6g salt per day**. (Equivalent to a teaspoon size). The majority of salt required in our diet is already in the foods that we eat.

Research shows that some of us could be eating up to 9g each per day!

Use the following advice to limit your salt intake:

- Try not to add salt at the table, taste your food first. Use only a small amount of salt in cooking if needed.
- If you do need to use it, only use a small amount.
- Try to flavour foods with a variety of herbs and spices e.g. pepper, ginger, paprika, mint, garlic (not garlic salt), curry powder, lemon and lime.
- Limit use of stock cubes, soy sauce and yeast extract.
- Avoid salty snacks such as crisps and nuts, Bombay mix, poppadums and cured meats.
- Use fewer tinned, processed or ready meal foods.

Alcohol

Excess alcohol intake can lead to weight gain and raised triglyceride levels, as well as potentially leading to poorer dietary choices.

Weekly limits for both men and women are 14 units per week with at least two nights alcohol free.

If using mixers with your drink, remember to choose a sugar free/diet option.

Reading Food Labels

When making dietary changes it is important to check labels of your favourite foods and drinks, to be aware of their contents and make healthier choices.

All measures per 100g	Low – Healthier choice	Medium – Okay most of the time	High – Occasional use
Sugars	5g or less	5.1 – 22.5g	More than 22.5g
Fat	3g or less	3.1g – 17.5g	More than 17.5g
Saturated Fat	1.5g or less	1.6-5g	More than 5g
Salt	0.3g or less	0.31 – 1.5g	More than 1.5g

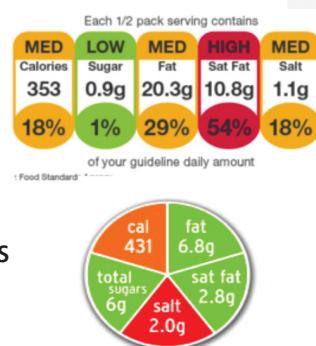
Ingredients List

Ingredients list will begin with the largest amount first in descending order.

So for example if sugar is at the top of the list, you know that food is likely to be high in added sugars.

Traffic light labels

Another form of labelling you will see is Traffic Light Labelling. This is usually found on the front of products. It can be a quick visual guide to knowing what is in your food and drink. Green means low, amber means medium and red is high, similar to the advice in the table above.



Foods that can reduce your cholesterol

Whilst there are parts of the diet that we need to limit such as saturated fat, sugar and salt, some foods can potentially reduce your cholesterol, and should be included as part of your regular diet.

1. Fruit and vegetables

Fruit and vegetable are important in the prevention of heart disease.

We should all be aiming to eat at least 5 portions of fruit and veg per day.

An example of one portion – 1 banana, 2 plums, 2 tablespoons of cooked veg, 1 small side salad.

You can increase your fruit and vegetable intake by:

- Use frozen or tinned vegetables for added convenience, ensure tinned fruit is in fresh water and not salt water or syrup.
- Add extra vegetables into soups, stews and casseroles.
- Try to add some salad to sandwiches.
- Add some chopped fruit into cereal at breakfast.
- Try raw vegetables or fresh fruit as snacks between meals.
- Add chopped fruit or berries into any low fat desserts for added flavour.

2. Soluble Fibre

Soluble Fibre can help to lower blood lipid (fat) levels, as well as maintain healthy regular bowel movements. It dissolves in the water in your gut, to form a gel like substance. This in turn soaks cholesterol up like a sponge and removes it from your body.

It can be found in Porridge oats and oat bran, fruit and vegetables, linseeds (Flax seeds), barley, beans, pulses, lentils and chickpeas.

Note that it is important to increase your fluid intake if you intend to increase your fibre intake, or you may experience bloating or abdominal discomfort.

Stanols and sterols

Plant stanols and sterols, also known as phytosterols, are cholesterol-like compounds that are found naturally in a range of plant-based foods including vegetable oils, grain products such as breads and cereals, seeds, nuts, legumes, and fruits and vegetables.

Why do you need plant stanols and sterols?

Along with a healthy diet, eating foods that provide you with around 2g of plant stanols and sterols every day has been shown to reduce blood cholesterol levels.

A healthy diet typically contains around 200-400mg of stanols and sterols a day. However, this intake is too low to bring about a significant cholesterol-lowering effect. Plant stanols and sterols are added to certain foods such as fat-based spreads or dairy-type foods like milk, yoghurt and yoghurt drinks. These fortified foods typically contain 0.75 to 2g per serving size and can help you reach the amount needed to help lower your cholesterol.

How do they lower cholesterol?

Plant stanols and sterols have a similar chemical structure to cholesterol. They are thought to work by reducing the absorption of cholesterol in the gut so more is lost in the faeces (poo). This helps to lower total cholesterol and non-HDL cholesterol (the bad cholesterol) in the blood.

How much of the fortified foods do I need to eat to get 2g of stanols or sterols?

If you decide to use a plant stanol or sterol fortified product, follow the instructions on the packaging. You need to take them every day, with meals, as they work by mixing with food, and in the right amount. If you stop using them, the potential benefit of

lowered cholesterol will also stop.

You can achieve 2g per day of plant stanol and sterol by consuming:

- One plant stanol or sterol fortified mini yoghurt drink (one bottle) or yoghurt (one pot) per day which contains all the 2g recommended OR
- Two to three portions of foods with at least 0.8g of added plant sterol/stanol per day such as:
 - Two teaspoons (10g) fortified spread
 - One fortified yoghurt
 - One glass (250ml) fortified milk

These can be branded or supermarket own brands.

Can I take plant stanol and sterol products with cholesterol-lowering medication?

These products are safe for people taking cholesterol-lowering medication such as statins and fibrates. As they work in different ways to reduce cholesterol, the effect of taking both can decrease cholesterol levels more than just taking a statin or fibrate.

If you're taking Ezetimibe (Ezetrol) cholesterol-lowering medication, you should discuss with your doctor whether there is any additional cholesterol-lowering benefit for you to take stanols and sterols.

They are not a replacement for any cholesterol-lowering medication and if you are already taking medication to help lower your cholesterol, you should inform your doctor before you start taking them.



Useful Websites

British Heart Foundation:
www.bhf.org.uk

NHS Choices – High Cholesterol:
<http://www.nhs.uk/conditions/cholesterol/Pages/Introduction.aspx>

British Dietetic Association – Food Fact Resources
<https://www.bda.uk.com/foodfacts/home>

HeartUK – The Cholesterol Charity:
<https://heartuk.org.uk/>

Change4Life
<https://www.nhs.uk/change4life-beta/be-food-smart>

British Nutrition Foundation
<https://www.nutrition.org.uk/>

We hope this advice helps you in making some informed decisions towards your diet and lifestyle. Try making a few small, long term changes today!

This leaflet is available in large print, Braille and on tape.
Please contact 0151 604 7289 if calling from outside the Hospital and x2761 if calling from inside the Hospital.



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