Department of Nutrition & Dietetics

Dietary Advice to Lower Blood Cholesterol Levels

Following this information does not mean you should stop taking your cholesterol lowering medication (statin). Medication and lifestyle changes (including stopping smoking and dietary changes) are the most effective ways to reduce your blood cholesterol levels.

This is not a stand alone diet sheet. The information should only be given out by a Dietitian and in conjunction with other dietary advice.

Introduction

A cardio-protective diet is based on healthy eating which includes eating fish twice a week (one of which should be an oily fish) and plenty of fruit, vegetables and fibre. It also involves reducing total fat intake, particularly saturated fat, and reducing foods high in salt. This diet sheet will look specifically at the foods which can reduce blood cholesterol levels.

Cholesterol is a type of fat made by the body. It is mostly made by the liver from fats in the foods you eat. Cholesterol plays a vital role in the body, but too much can increase your risk of getting heart disease and stroke by leading to fatty deposits forming in your blood vessels, causing them to narrow and block.

People who are at high risk of or who already have heart or circulatory disease should aim for a total cholesterol level of 4mmol/l or below.

Cholesterol is carried around the body in the form of lipoproteins. There are two types:

- **Low density lipoproteins (LDL cholesterol)** - this is known as ‘bad cholesterol’ as it transports fat to your heart and blood vessels. The recommended level for LDL cholesterol is 2mmol/l or below.

- **High density lipoproteins (HDL cholesterol)** – this is known as ‘good cholesterol’ as it transports fat away from your heart and blood vessels. The recommended level for HDL cholesterol is above 1mmol/l

Some foods can help to increase/decrease cholesterol levels. The more of the below changes you can incorporate into your diet, the better the cholesterol lowering results.

- Reduce saturated fats & increase monounsaturated fats
- Increase soya protein.
- Increase soluble fibre – oats, whole grain, beans and pulses.
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- Increase beta-glucan containing foods.

**Fats**

To help improve your cholesterol level you need to cut down on saturated fats (‘bad fats’) and replace them with monounsaturated fats (‘heart healthy’ fats). The table below shows which foods these fats are found in:

<table>
<thead>
<tr>
<th>Type of fat</th>
<th>Where they are found</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Saturated fats</strong></td>
<td>Butter, lard, suet, dripping, coconut oil/butter, ghee</td>
</tr>
<tr>
<td></td>
<td>Red meat, processed meat</td>
</tr>
<tr>
<td></td>
<td>Cakes, biscuits, pastries, chocolate</td>
</tr>
<tr>
<td></td>
<td>Hard cheese, cream, ice-cream</td>
</tr>
<tr>
<td><strong>Polyunsaturated fats</strong></td>
<td>Sunflower oil, corn oil, soya bean oil</td>
</tr>
<tr>
<td></td>
<td>Sunflower spreads</td>
</tr>
<tr>
<td></td>
<td>Oily fish (salmon, mackerel, sardines, pilchards, trout, herring) – <strong>aim to have 1 portion (140g) a week</strong></td>
</tr>
<tr>
<td></td>
<td>Sunflower seeds, flaxseeds</td>
</tr>
<tr>
<td></td>
<td>Walnuts, pine nuts</td>
</tr>
<tr>
<td><strong>Mono unsaturated fats</strong></td>
<td>Olive oil, rapeseed oil, groundnut (peanut) oil</td>
</tr>
<tr>
<td></td>
<td>Olive oil spreads</td>
</tr>
<tr>
<td></td>
<td>Avocado</td>
</tr>
<tr>
<td></td>
<td>Nuts (plain, unsalted) – peanuts almonds, pistachios, pecans and hazelnuts – <strong>aim for a small handful (30g) 4-5 times a week</strong></td>
</tr>
</tbody>
</table>

Choosing healthier fats can protect your heart, but remember all fats are high in calories. Large amounts of any type of fat will contribute to weight gain. Aim to reduce the total amount of fat you eat.

**Soya Protein**

Including **15g** of soya protein in your diet every day can help to lower LDL (bad) cholesterol levels.

The following table explains the quantity of soya based products you will need to include in your diet to achieve the daily recommended amount. It is divided into portion sizes that contain 15g or 10g or 5g of soya protein to enable a variety of choice.

**Table of foods to help you achieve 15g Soya Protein per day:**

<table>
<thead>
<tr>
<th>Food Product</th>
<th>15g soya protein</th>
<th>10g soya protein</th>
<th>5g soya protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soya milk</td>
<td>500ml</td>
<td>340ml</td>
<td>170ml</td>
</tr>
</tbody>
</table>
Patient Information

<table>
<thead>
<tr>
<th>Soya nuts</th>
<th>28g or a handful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soya mince/chunks</td>
<td>30g or ¼ cup</td>
</tr>
<tr>
<td>Tofu sausages</td>
<td>1 sausage</td>
</tr>
<tr>
<td>Marinated tofu</td>
<td>50g or ½ cup</td>
</tr>
<tr>
<td>Cooked/dried soya beans</td>
<td>90g or 1 cup</td>
</tr>
<tr>
<td>Young soya beans (edamame)</td>
<td>60g or ½ cup</td>
</tr>
<tr>
<td>Soya shakes</td>
<td>250mls or ½ pint</td>
</tr>
<tr>
<td>Soya burger</td>
<td>1 burger</td>
</tr>
<tr>
<td>Soya plain or fruit yoghurt</td>
<td>125-150g or 1 pot</td>
</tr>
<tr>
<td>Soya dessert*</td>
<td>125-150g or 1 pot</td>
</tr>
<tr>
<td>Soya custard*</td>
<td>150ml serving or 1 small glass</td>
</tr>
</tbody>
</table>

* Please be aware that these products are high in sugar. If you have diabetes or are watching your weight, limit these to 1 serving per day and try not to include every day.

Soluble fibre

Adequate amounts of soluble fibre in the diet can help to lower cholesterol levels.

You will increase your soluble fibre intake by:

- Eating 5 portions of fruit and vegetables a day (including one portion of lentils, beans or pulses)
- Including whole grain versions of foods such as wholemeal bread, wholegrain pasta, crisp breads
- Having 3g of oat beta-glucan per day (see below):

Beta-glucan: Achieving 3g oat beta-glucan

Each of the following products contains about 1g of oat beta-glucan. Try to include any three every day:

- 250ml oat based milk
- 2 tbsp (15g) oat-bran
- 3 tbsp (30g) of porridge oats or 1 sachet of microwaveable oats
- 1 oat breakfast biscuit eg oatibix
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- 2 slices oat bread
- A bowl (30-35g) of oat based breakfast cereal
- 3 oatcakes (oat based crackers)
- 2 Staffordshire oatcakes (oat based pancakes)
- 2 oat based cereal bars* (if oats are more than 40% of ingredients).

* These are the higher calorie varieties and should be avoided if you have diabetes.

Meal and Snack Ideas

The list below demonstrates how you can include all the above into your diet.

Breakfast ideas

- Wholegrain cereal (e.g. Shreddies, Weetabix, Shredded Wheat, Branflakes, All Bran) with soya milk or oat milk.
- Oat based cereal such as; low sugar muesli, Porridge, Oatibix.
- Bowl of fruit with soya yoghurt and a handful of nuts.
- 2 slices of oat based or wholegrain toast with an olive oil based spread.

More tips for breakfast:

- Have a glass of soya or oat milk or soya yoghurt with your breakfast.
- Add a handful of unsalted nuts or some oat bran to your bowl of cereal.
- Have a plain soya yoghurt or a piece of fruit as part of your breakfast (maybe in place of a slice of toast, or with a small bowl of cereal).

Snack meal ideas

- Wholegrain or oat bread sandwich (2 slices) with a healthy filling such as lean meat, oily fish, salad, low fat cheese/soft cheese.
- Oatcakes, Staffordshire oatcakes or wholegrain crackers/crisp breads with mackerel pate or low fat soft cheese/cottage cheese and salad.
- Oatcakes/ Staffordshire oatcakes / crackers/wholegrain toast with hummus and raw vegetable sticks
- Baked beans on wholegrain/oat bread toast.
- Scrambled eggs and smoked salmon with a slice of wholegrain toast
- Whole wheat pasta/rice salad with peppers, beans/pulses, oily fish/lean meat
- Mixed salad with added edamame beans, and other pulses with oatcakes, crackers or a slice or two of wholegrain bread
- Wholegrain pitta bread, Staffordshire oatcake or wrap stuffed with salad, oily fish/tofu or hummus.
- Wholegrain/oat bread toast with tinned mackerel/sardines in tomato sauce.
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- Bean/lentil based soup with a wholegrain roll/oatcakes/crackers

Main meal ideas:
- Bolognese sauce made with soya mince and served with whole wheat spaghetti
- Chilli con carne with soya mince and red kidney beans served with wholegrain rice
- Stir fry with tofu, lots of fresh vegetables and edamame beans served with noodles or wholegrain rice
- Casseroles/stews made with pulses and soya sausages or lean chicken/beef
- Fish pie made with salmon and mashed potato top (use soya milk to make a white sauce.
- Kedgeree made with salmon, or other oily fish such as smoked mackerel
- Soya burger in a bun with a large bowl of salad
- Salmon/tuna steak with new potatoes and/or plenty of vegetables or salad
- Grilled soya sausages with mashed potato/mashed butterbeans and plenty of vegetables.

Suggested desserts
- Soya dessert* or yoghurt with some unsalted nuts/seeds or oat bran added
- Piece of fruit
- Fruit salad with soya yoghurt
- Stewed fruit with soya custard*
- Sugar free jelly with fruit at the bottom

Suggested snacks
- 2 Oatcakes/ 1 Staffordshire oatcake/ 2 wholegrain crackers with low fat soft cheese/spread/mackerel pate
- A handful of unsalted nuts/roasted soya beans
- A soya yoghurt /dessert*
- A portion of fruit
- Hummus /Tomato salsa and vegetable stick dips
- Latte made with soya milk
- Oat based cereal bar* (where oats make up over 40% of the ingredients)
- 2 handfuls of plain popped corn
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* Watch sugar content if you have diabetes. Some products may be higher in sugar so check food labels.

Further Support

If you need any further information please contact the Department of Nutrition & Dietetics at UHCW on 024 7696 6161 or Rugby St Cross on 01788 663473.

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