General information on a cardio-protective diet

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The cardio-protective diet is the name given to a Mediterranean style diet that has been shown to protect our hearts. It was first discovered that people of Greece, in particular the Island of Crete had lower rates of Coronary Heart Disease than people of other nations. Their cholesterol, blood pressure and rates of heart attacks are lower then other parts of the world, including the UK. Their diet was studied and the components of it that contribute to heart health were identified.

**Eating a healthy diet**

- Try to achieve and maintain the ideal weight for your height
- Cut down on fat and eat unsaturated (e.g. olive, rapeseed, corn, sunflower) fats rather than saturated fats (from meat and dairy products) wherever possible
- Eat at least 1-2 portions of fish per week, 1 of which should be oily. If you have had a heart attack, you should try to eat 2-3 portions of oily fish per week
- Use starchy foods (without added butter, oil etc) such as bread, potatoes, rice and pasta – particularly wholegrain varieties
- Eat plenty of fruit and vegetables – aim for five portions a day
- Reduce your salt intake – by adding less to food and eating fewer salty foods
- Drink alcohol in moderation
- Be a healthy weight

**What are the benefits of cardioprotective diet?**

- Reducing the levels of bad fats in the blood
- Reducing the stickiness of the blood, lowering the risk of developing a blood clot, which may cause a heart attack
- Reducing inflammation and damage to blood vessels
- Providing anti-oxidants that help to protect against formation of harmful substances in the body
- Helping the heart to beat in a regular rhythm
Follow these 10 simple steps to help improve your heart health

Step 1: Eat the right type of fat, and less fat overall

The type and amount of fats you eat will affect your blood cholesterol levels.

You should choose unsaturated margarines and cooking oils (e.g. olive oil, rapeseed oil and avocado, sunflower and corn oils).

Try to limit your intake of saturated fat as much as possible as this type of fat increases your cholesterol level. Foods high in saturated fat are; butter, lard, ghee, full fat dairy products, coconut and palm oil, fat and skin on meats and poultry, pastries, processed meat products, cakes and biscuits and chocolate. Most of the cholesterol in your blood comes from saturated fat that you eat, rather than the cholesterol found naturally in foods such as eggs, shellfish and offal.

Tips to reduce your saturated fat intake

• Choose a spread that has less than 20g of saturated and trans fats per 100g. Whichever spread or margarine you use spread it thinly

• Small amounts (3-4oz) of red meat can be eaten 2-3 meals per week

• Lean ham, turkey or chicken can be used for sandwiches or salads

• Grill, oven-bake, dry-fry, poach or microwave food instead of adding oil or frying
• Chicken and turkey are lower in fat than most red meats, but do not eat the skin which is the fattiest part. Remove fat before cooking
• Only eat pasties, puddings, pate, sausages, burgers and meat pies occasionally as they are high in saturated and trans fats
• Choose low fat or virtually fat free dairy products such as yoghurts, milk and cheese
• Drain off excess fat when cooking meats, Use ice-cubes to help solidify fat
• Use less meat and bulk out dishes with beans, pulses and vegetables
• Try Quorn or tofu as an alternative to meat
• Remember that all types of fat are high in calories (energy) so should only be taken in moderation
• Keep cooking oil to one teaspoon per person per meal
• Limit margarine to two teaspoons per serving
• Be cautious with creamy, buttery and cheesy sauces or dressings

Step 2: Eat more fruit and vegetables

You should aim to eat at least five portions of different coloured fruit and vegetables every day. These are rich sources of vitamins, minerals and fibre – all of which can help keep your cholesterol and heart healthy and protect against numerous diseases. They are generally low in calories and can therefore help weight loss and help keep up a healthy weight. Dried, frozen or tinned fruit and vegetables are just as nutritious as ‘fresh’ varieties.

Top tips
• Avoid adding peanut butter, oil and butter to your vegetables if you are watching your weight
• ½ Avocado counts a 1 of your 5 a day
Step 3: Eat more oily fish

Oily fish such as herring, kippers, mackerel, pilchards, salmon, fresh tuna, sardines and trout are rich in beneficial omega-3 fats. These can reduce the stickiness of blood making it less likely to clot.

You should aim to eat at least one serving (each of 100-150g) of oily fish a week.

This can be fresh, frozen, tinned or smoked. However, canned tuna is not as good because the canning process destroys the omega-3s.

- If you cannot eat or dislike oily fish, consider taking an omega-3 oil supplement that provides 1000mg/1g (check dosage on packaging)
- For vegans or strict vegetarians – have one tablespoon of flaxseed oil or crushed flaxseeds daily or flaxseed oil supplement (follow manufacturer’s instructions.) Non-fish sources of omega-3 fats also include walnuts, pecan nuts, almonds, soya beans and tofu, and dark green leafy vegetables. Your body can convert a type of fat in plants called alpha linolenic ‘ALA’ acid into small amounts of omega-3
- Omega-3 enriched products are often quite expensive and the omega-3 content varies greatly within enriched products such as milk, yoghurt, eggs, fish fingers, so check labels. The target is 1.0g of omega-3 per day

Which fish contains lots of omega-3 oils? (Per average serving)

<table>
<thead>
<tr>
<th>High source</th>
<th>Low Source</th>
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<tbody>
<tr>
<td>Mackerel – fresh or frozen</td>
<td>Salmon fish pate</td>
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<tr>
<td>Kippers – Fresh or frozen</td>
<td>Tuna – canned in oil</td>
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<tr>
<td>Salmon – Fresh or frozen</td>
<td>Eel – fresh or jellied</td>
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<tr>
<td>Pilchards – canned in tomato sauce</td>
<td>Fish paste – crab, salmon, sardine</td>
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<tr>
<td>Sprats or salmon – fresh or frozen</td>
<td>Cod, haddock plaice – fresh or frozen</td>
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<tr>
<td>Mackerel – canned or smoked</td>
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<tr>
<td>Herring – pickled fresh or frozen</td>
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<tr>
<td>Sild or skippers – canned</td>
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<tr>
<td>Salmon canned in brine, smoked, or in pasta dishes</td>
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<tr>
<td>Crab – fresh</td>
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<tr>
<td>Trout – smoked</td>
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</table>
Step 4: Achieve and maintain an appropriate body weight

Significant health improvements can be made from even a small amount of weight loss. Blood pressure, cholesterol, the risk of getting Type 2 diabetes and the workload of the heart, decrease with as little as 5–10% weight loss (on average 6-12kg).

The most effective way to both lose weight and maintain it is to eat a moderately reduced calorie, balanced diet and increase your physical activity level. You should aim to lose no more than 0.5 to 1kg per week.

Having half a plate of vegetables at meals can help you lose weight.

Top tip: Keep a food diary to help see your progress

**Fruit, vegetables and salad**
- Spinach, carrots, lettuce, greens, cabbage, green beans, broccoli, cauliflower, tomatoes, salsa, onion, cucumber, beets, okra, mushrooms, peppers, turnips.

**Carbohydrates**
- Rice, pasta, potato, porridge, cereals, oats, maize meal, plaintain, sweet potatoes, yam, bread, bulgar wheat, cous cous.

**Meat and alternatives**
- Eggs, fish, chicken and poultry, meat, tofu, Quorn, cheese, beans such as kidney beans, black eye beans, soyabeans, chickpeas and lentils.
Step 5: Eat more pulses, and oats

Pulses and porridge oats contain a type of fibre known as soluble fibre, which can help to reduce your cholesterol. Beans, dhal, lentils, kidney beans, peas and oat based cereals are all examples. Try to include more of them in your diet in soups, salads and stews.

Step 6: Eat 1oz (30g) of nuts daily

Almonds, walnuts and unsalted peanuts contain heart-healthy fats, fibre, vitamins and minerals, and may help lower your cholesterol. Do not choose salted or dry roasted nuts as these are high in salt. Keep to 30g (a small handful) a day only, as they are high in calories and overeating may cause weight gain. If you are overweight, have this instead of one of your protein servings. If you are a healthy weight, you can have this as a snack.

Top tip: try adding nuts to cereals, yoghurts, curries or salads or eaten as snack.

Step 7: Consider plant stanol/sterol products

Plant stanol or sterol substances can lower your total and ‘bad’ LDL cholesterol level by 10% in three weeks. They achieve this by reducing the amount of cholesterol your body is able to absorb from food.

Recommended dosage: either one bottle of drink a day

- Benecol mini – yoghurt drink, mini dairy free drink, mini-fruit and dairy smoothie drink
- Flora Pro-Activ Probiotic yoghurt drink
- Supermarket own brand cholesterol lowering mini yoghurt drink

OR...three servings of the following products each day:

- Benecol spread (2tsp)
- Flora Pro-Activ low fat spread (2tsp)
- Flora Pro-Activ milk (250ml glass)
- Benecol low fat Bio yoghurt (1 pot)
- Flora Pro-Activ low fat yoghurt (1 pot)
• Benecol light cream cheese spread (4tsp) or
• Minicol cheddar cheese (65g)

Many of the larger supermarkets have their own range of plant stanol and sterol mini-yoghurt drinks which provide the protective dose 2g of plant stanols sterols which have been shown to reduce cholesterol levels. In addition to this many supermarkets have spreads, milk and yoghurts which require 3 daily servings to achieve 2g daily. Speak with your Dietitian for more information.

**Step 8: Reduce sugar and sugary food and drinks**

It is important to reduce your intake of sugar, and sugary foods and drinks. Sugars are also an unnecessary source of calories if you are trying to lose weight. Sugars are found in many processed foods. Choose sugar-free or reduced-sugar drinks wherever possible and eat fewer biscuits, cakes, sweets, chocolates and desserts or puddings.

Try using a sweetener instead of sugar. Sucrose, glucose, fructose, dextrose, honey, maltodextrins, syrup and molasses are all names used on food labels but are no more nutritious than ordinary sugar so be cautious of foods where these are high in the ingredients list.

**Step 9: What about alcohol?**

There is good evidence that ‘moderate amounts of alcohol’ together with a healthy well balanced Mediterranean style diet can help protect the heart in men aged over 40 and women who have gone through menopause. It is thought this is mainly due to the fact that it can increase levels of HDL (good) cholesterol. However, excessive or binge drinking is not beneficial.

Moderate drinking means no more than 21 units of alcohol a week or 3-4 units a day for men, or no more than 14 units a week or 2-3 units a day for women.
What is a unit?

A UK unit is 10ml of pure alcohol

<table>
<thead>
<tr>
<th>Units</th>
<th>Calories</th>
<th>ABV</th>
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<tbody>
<tr>
<td>2 Units</td>
<td>182</td>
<td>3.5%</td>
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<tr>
<td>1 Unit</td>
<td>120</td>
<td>37.5%</td>
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<tr>
<td>1 Unit</td>
<td>55</td>
<td>40%</td>
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<tr>
<td>1.5 Units</td>
<td>93</td>
<td>12%</td>
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<tr>
<td>2.1 Units</td>
<td>130</td>
<td>12%</td>
</tr>
<tr>
<td>9 Units</td>
<td>556</td>
<td>12%</td>
</tr>
<tr>
<td>1.4 Units</td>
<td>200</td>
<td>5%</td>
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</tbody>
</table>

Units can be difficult to understand as most people drink by the glass, not by the unit.

Top tip: We all need 2 alcohol free days a week

Step 10: Increase your activity level

Regular exercise (such as brisk walking, swimming, cycling, gardening, and aerobics) can help to lower ‘bad’ cholesterol level whilst increasing the ‘good’ cholesterol level. It will also increase your chances of successful weight loss and help maintain your weight once you have reached your target weight.

Aim to do at least 30 minutes of moderate to intense activity five times a week for general health. To lose weight and prevent weight gain you should try to do 30-90 minutes of moderate-intense activity up to five times a week.

Top tips:

- It may help to wear a pedometer and see if you can do at least 10,000 steps per day this will help you burn between 300 and 400 calories a day
• Check your local council website regularly for updates on offers and schemes

Food labels explained

Understanding food labels is useful as this will allow you to work out how much fat and sugar a certain product contains and compare different brands.

<table>
<thead>
<tr>
<th>Nutritional Information</th>
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<tr>
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<tr>
<td>Per serving</td>
</tr>
<tr>
<td>Energy</td>
</tr>
<tr>
<td>Protein</td>
</tr>
<tr>
<td>Carbohydrate</td>
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<tr>
<td>Of which sugars</td>
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<tr>
<td>Of which starch</td>
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<tr>
<td>Fats</td>
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<td>Of which saturates</td>
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<td>Of which monounsaturates</td>
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<tr>
<td>Of which polyunsaturates</td>
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<tr>
<td>Fibre</td>
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<tr>
<td>Sodium</td>
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</tbody>
</table>

**Energy** – this may be shown as kilocalories (Kcal) or Kilojoules (KJ). Kcal is the same as calories.

**Carbohydrate** – usually includes both sugars and starches.

**Fat** – usually includes the total fat content of the product. This is often broken down into the contribution from the different types of fat.

Current recommendations advise we do not consume more than 6g salt each day. Salt is also known as sodium chloride. The sodium content of a food is often provided on food labels. You can work out the amount of salt in product by multiplying the sodium value by 2.5. If the product above is used as an example;

0.17g sodium x 2.5 = 0.43g salt per serving
0.67g sodium x 2.5 = 1.68g salt per 100g

Food labels often list ‘amount per serving’ and ‘amount per 100g’. Information about the ‘amount per serving’ will give you an indication about how much that particular amount of food contributes to your daily allowance. Be aware that your serving size may differ from that on the packet. The amount per 100g allows you to compare different products.

**Labelling claims**

**Low fat** – contains less than 3g fat per 100g/100ml of the product

**Less than 5% fat** – the product contains less that 5g of fat per 100g.

**Reduced fat** – the product will contain 25% less fat than the standard product. This does not necessarily mean that the product is low in fat.

**Low sugar** – contains less than 5g sugar per 100g/100ml of the product

**Reduced sugar** – this product will contain 25% less sugar than the standard product and does not necessarily mean the product is low sugar.

**No added sugar** – this means no sugar of any form has been added. The product may still contain natural sugar.

Always choose low fat/sugar or less than 5% fat/sugar products were possible. If you purchase a ready made meal it is best to ensure the total amount of fat in each meal is 8g or less.

**Useful websites**

**British Dietetic Association: Foodfacts on Cholesterol**
www.bda.uk.com/foodfacts

**British Heart foundation**
www.bhf.org.uk

**Heart UK**
www.heartuk.org.uk

**Change4life**
www.change4life.co.uk
The Trust provides free monthly health talks on a variety of medical conditions and treatments. For more information visit www.uhb.nhs.uk/health-talks.htm or call 0121 371 4323.