

**Eating for  
your heart ...**

**.... The Mediterranean – style diet**

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## Why should I change what I eat ?



You may have been told that you have a high cholesterol level. Cholesterol is one of the fats in our blood. A high level can increase the risk of developing cardiovascular disease (this includes angina, heart attack, stroke and peripheral vascular disease). However raised fat levels are just one of many risk factors (see below).



You may be at increased risk of developing cardiovascular disease because you have one or more of these other risk factors :-

- Overweight
- Lack of exercise
- Raised blood pressure
- Smoking
- Excessive stress
- Family history of heart disease
- Diabetes



You may already have developed cardiovascular disease, for example you may have angina or have recently suffered a heart attack or stroke, or you may have peripheral vascular disease.

**In all these cases, whether your cholesterol levels are raised or not, the advice in this leaflet may be beneficial for you. There is now increasing evidence and agreement, that changing to a Mediterranean-style diet can help to prevent the development and progression of cardiovascular disease.**

## How does the diet work ?

It is still not exactly clear how the diet has this effect. It may work by a combination of different effects, including :

- Effects on blood fat levels - increasing levels of good fats and reducing levels of bad fats.
- Reducing blood clotting – thus reducing the risk of a blood clot damaging the heart.
- Reducing inflammation in blood vessels – thus reducing injury to coronary arteries.
- Antioxidation – helping to protect against formation of damaging oxidised substances in the body.
- Reducing irregular rhythms in heart muscle cells

## **Which types of foods form the basis of the diet ?**

The diet is high in plant based foods, especially fruit, vegetables, pulses and wholegrains. It also contains fish, especially the oil rich varieties. Low fat dairy products and small quantities of nuts are included, along with small amounts of lean meat and poultry. Hard (saturated) fat is reduced and partially replaced with monounsaturated fat from olive or rapeseed oil. The emphasis is on freshly cooked foods as often as possible, in preference to ready prepared meals.

**The advice which follows will help you to make some changes to your eating pattern. Try to do this gradually and set realistic goals. Don't worry if you cannot manage everything, even making just a few of the changes can be helpful.**

**The two most important changes to try and make are increasing oil rich fish and fruit and vegetables. These are the two changes which will give most benefit to your heart.**

### **SUMMARY**

***Eat more fruit and vegetables – at least 5 portions a day***

***Include oil rich fish 2– 3 times a week***

***Have some wholegrain cereal foods, pasta, potatoes or rice at each meal***

***Use olive or rapeseed oils and spreading fats***

***Cut down on saturated fat and hydrogenated vegetable fat***

***Use freshly prepared foods wherever possible***

***If you are overweight, try to lose some***

***Take as much exercise as you can safely manage***

The advice which follows will explain all these points in more detail.

# Eating more fruit and vegetables .....

## ..... how much and which kind ?

Eating more fruit and vegetables is one of the best dietary changes you can make to improve your health. There is evidence that fruit and vegetables help to prevent not only cardiovascular disease, but also other diseases such as cancer. They are low in Calories and rich in fibre, vitamins and minerals.

- Aim for at least ⑤ helpings each day. A mixture of fruit and vegetables or salad is best for diabetics (see the table for portion sizes)
- Try to eat fruit and vegetables regularly, with each meal. Only eat 1 portion of fruit with each meal. Adding fruit and vegetables to meals can help control blood sugar. If you have a ready prepared meal, have some extra vegetables/salad and fruit with it.
- Use a wide variety – all types are suitable
- Include fresh, frozen, dried or those tinned in natural juices
- Try to include green leafy vegetables and fruit/vegetables which are coloured red/orange/yellow, on a regular basis. For example : carrots, bananas, tomatoes, oranges, red peppers, cabbage, broccoli, brussel sprouts, watercress, spinach.
- Use them as snacks, as desserts, in salads, on sandwiches, as part of a main meal, in soups and casseroles.
- Wash all fresh fruit and vegetables well before you eat them
- Store fresh vegetables in a cool, dark, dry place and cook them for the minimum length of time so the vitamins are not destroyed.





### **What counts as a portion ?**

- 1 whole medium fruit eg apple, banana, orange, peach, nectarine, kiwi fruit
- 1 large slice of very large fruits eg melon, pineapple
- 2 whole small fruits eg plums, apricots, satsumas, tangerines
- 1 cupful very small fruits eg grapes, strawberries, blackberries, raspberries
- 1 tablespoon dried fruits eg sultanas, raisins, apricots
- 1 small glass natural unsweetened fruit juice (150 mls) – only use this choice once each day
- 3 tablespoons fresh fruit salad, stewed or canned fruit
- 2 heaped tablespoons fresh/frozen/canned vegetables (raw or cooked)
- 1 medium sized raw carrot
- 1 dessert bowl salad
- 2 medium tomatoes or a portion of sauce made from tomatoes (for example in a pasta sauce)
- 1 small tin baked beans in tomato sauce
- 1 medium bowl vegetable based soup or stew

### **Do potatoes count as a portion of vegetable ?**

Potatoes are a good food to eat but they do not count towards the ⑤ a day total.

Potatoes are a high starch food, like pasta, rice and bread. They form an important part of your daily meal pattern.

## Eating more oil rich fish ...

### ... how often and which kind ?

Oil rich fish contains a special type of polyunsaturated fat called omega-3. This type of fat helps to protect the heart. Eating more oil rich fish is the other most important change you can make to help your heart.



Oil rich fish		
Salmon	Mackerel	Sardines
Trout	Herring and Kippers	
Pilchards	Sprats or Brisling	
Sild	Fresh tuna (not tinned)	
Rock salmon (dog fish)		
Bloaters	Conger eel	
Whitebait		

**Crab** is also a good source of omega-3 fats

- Aim to have a large portion of oil rich fish 2 – 3 times per week
- Each portion should be at least 100g (3 – 4 oz) in weight
- The fish can be fresh, frozen or tinned (in brine, water, tomato sauce or oil). The exception to this is tuna fish which needs to be fresh. Ensure that tinned fish is drained well to avoid extra oil and salt.



Your dietitian can supply you with some recipes and ideas for cooking oil rich fish. **White fish and shellfish** are also healthy choices and can be included, however they contain much less of the omega-3 fat so do not count towards the 2 – 3 portions per week.

If you cannot manage this amount then smaller portions are still beneficial.

### **What about Fish Oil Capsules and Cod Liver Oil Capsules?**

Supplements are not recommended for people with diabetes. This is because too high levels can affect blood glucose control. The levels obtained from eating fish are better for people with diabetes.

### **What if I am vegetarian ?**

We can also get omega-3 fat from rapeseed (canola) oil and flax (linseed) oil.

Rapeseed oil is widely available in the shops now, so you could include a small amount of it in your diet each day. It can be bought as pure rapeseed oil, or as the main ingredient in **blended vegetable oils** sold in shops. It can be used in cooking or salad dressings.

Flax (linseed) oil is only available to buy as a supplement, usually in capsule form.

It is unclear at the moment whether the omega-3 from these vegetable oils has the same protective effect on the heart as that from fish. To ensure that the body is able to use the oils to maximum effect, it is important to avoid other types of polyunsaturated vegetable oils in the diet, for example sunflower oil and corn oil.

### **What if I'm taking Warfarin ?**

You can still increase your oil rich fish intake but you must do this slowly over a period of a few months, and with regular blood tests.

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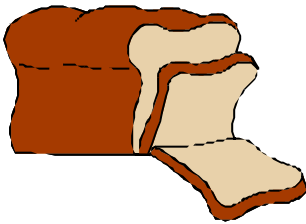
## **Eating more wholegrain cereal foods, pasta, potatoes and rice**

Cereal foods include breads, breakfast cereals, chapatis, pasta, noodles, rice, crispbreads. Potatoes are also an important food in this group. These foods give us fibre and some vitamins and minerals. It is a fallacy that they are high Calorie foods. They only become high Calorie if they have lots of fat added to them, for example bread spread thickly with butter or margarine or potatoes deep fried as chips. If you are cutting down on your fat intake then you may need to replace some of this with more cereal foods and potatoes.



Include some of these foods as the main part of all meals and snacks, along with vegetables or salad.

- ♥ All bread is suitable, but wholegrain breads are the best. For example granary, rye or seed breads.
- ♥ Bread can include : bread rolls, pitta bread, chapatis, bagels, bread sticks, muffins, crumpets, teacakes, crispbreads, crackers, oatcakes. Check labels on crackers, oatcakes and crispbreads to make sure they do not contain hydrogenated vegetable oil, palm oil, or butter.
- ♥ Rice cakes and rye crispbreads are also suitable
- ♥ Choose wholegrain breakfast cereals, for example Weetabix, Shredded Wheat, Shreddies, Bran Flakes
- ♥ Oats are especially good, so try porridge, Ready Brek or museli for breakfast.
- ♥ Potatoes can be baked in the skin, boiled or mashed. Brush olive oil or rapeseed oil on them for roasting. Use oven chips in preference to deep fried, and choose ones made with vegetable oil.
- ♥ All types of pasta, noodles and rice are suitable. Choose tomato or vegetable based sauces rather than creamy or cheesy ones as they are lower in fat.



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## Choosing the best fat ..... And how much ?

- ✗ It is the hard or saturated fat that you need to reduce. This is found mainly in animal fats such as the fat in meat, full fat milk, butter, cream, cheeses, ghee, lard, dripping and suet. It is also present in palm oil and coconut oil.
- ✗ Another type of fat called 'hydrogenated vegetable oil/fat' is also saturated and should be avoided. This type of fat is used in many manufactured foods such as bought pastry, pies, pasties, biscuits, cakes and some margarines.
- ✓ The saturated fat should be partially replaced with :
  - ➔ monounsaturated fat - found in olive oil, rapeseed oil and spreading fats made from these)

➔ omega-3 polyunsaturated fat – found in oil rich fish and rapeseed oil



Olive oil is the best oil to use for cooking and in salad dressings. Most brands are **not** suitable for deep frying unless they state on the label that they can be used for this purpose.



If you do not like olive oil or find it too expensive then choose rapeseed oil. This is much blander and cheaper. It is also suitable for occasional deep frying. It can be bought as pure rapeseed oil or as the main ingredient in blended vegetable oils. Your dietitian can supply you with a list of suitable brands.



Choose a spreading fat which is high in monounsaturated fat but does not contain hydrogenated vegetable oil. Your dietitian can supply you with a list of suitable brands.

### **IF YOU ARE OVERWEIGHT**

- **Watch the amount of these oils and spreading fats that you have.**
- **Use spreading fat thinly and avoid adding it to foods.**
- **Try one of the recommended lower fat spreads (less than 50% fat)**
- **Fry foods only occasionally. Instead try grilling, baking, boiling steaming or poaching.**

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### **What about these new spreading fats – Benecol and Flora Pro-activ ?**

These contain plant stanols or sterols which can help to reduce cholesterol levels in some people. They are expensive and should only be used by people with diagnosed high cholesterol levels. They should not be used by pregnant or breast feeding women, or children under five. About 20-25g of spread per day is needed to have an effect. This is equivalent to a thin spreading on 4 slices of bread. If you are already on medication to lower your cholesterol then it is not advisable to use these spreads aswell.

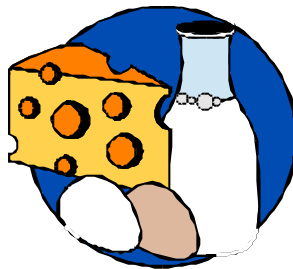
If you intend to try Benecol then the one made with olive oil would be the best choice. The long term effects of using these types of products are unknown , although at the present time they are thought to be safe.

We recommend that you discuss with your dietitian or doctor whether you would benefit from using these spreads.

## Changing to low fat dairy products

Dairy products are an important source of calcium, so don't just cut them out. Replace them with lower fat versions.

- ♥ Change to semi skimmed or skimmed milk. Have between ½ - 1 pint per day. This can be used in drinks, on cereals and in cooking.
- ♥ Choose low fat or virtually fat free yoghurts, milk puddings, custards and fromage frais.
- ♥ Try low fat soft cheeses such as cottage cheese, or reduced fat cheeses. Limit hard full fat cheese to small servings occasionally. Don't use hard cheese as a snack, keep it for main meals.
- ♥ If you use cheese for cooking then try small amounts of a stronger cheese such as Parmesan.
- ♥ If you don't eat any dairy foods, your diet may be short of calcium. Check with your dietitian.



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## Eating more freshly prepared foods

The fresher a food is, the more vitamins it contains. Many of the ready prepared meals and sauces tend to be high in saturated fat and salt. For these reasons, try to eat freshly prepared foods as often as you can manage. Our busy lifestyles today can make this difficult so you will probably still want to use some ready prepared meals or foods.

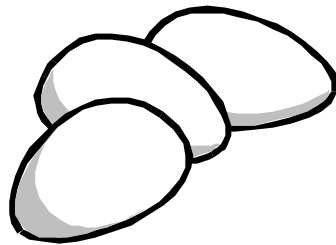
- Some tinned foods are useful to include as part of a healthy eating plan. For example :
  - tinned beans (any variety)
  - tinned fish
  - tinned tomatoes
- When you use ready prepared meals look carefully at the label and try to choose ones lower in fat. As a rough guide try to aim for main meals which contain less than 15 g fat per serving. Avoid ready meals which have a lot of cheese or cream in them.

- Serve ready meals with additional fresh vegetables or salad and fruit to finish. This will increase the vitamin and mineral content of the meal.

## What is the verdict on eggs ?

There has been much confusing advice about eggs in the past. This is because eggs are high in cholesterol. However, the cholesterol we eat in our food has little effect on our blood cholesterol level.

The current evidence suggests that eggs can be included in the diet in normal amounts. This is about 5 – 7 eggs per week.



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## Eating more pulses

Pulses are dried peas, beans and lentils. They are high in protein and fibre, and low in fat. They can be used to replace some of the meat in the diet. There are now a wide selection of beans available ready cooked in tins. These are cheap and easy to use. All varieties are suitable. Try some of the ones listed below.

Red kidney beans	Haricot beans
Butter beans	Tinned baked beans
Chick peas	Lentils
Split peas	Cannellini beans

- ♥ Add pulses to soups and casseroles
- ♥ Use in salads with low fat dressings
- ♥ Add to pasta dishes such as spaghetti bolognaise
- ♥ Use to replace some of the meat in for example cottage pie, chilli con carne or plain mincemeat
- ♥ Mix with sautéed chopped vegetables and use to fill jacket potatoes

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## **Choosing lower fat meats**

Saturated fat is found in the fat which surrounds the meat and the streaks of fat within the meat. Poultry has less saturated fat than red meats.

- ♥ It is fine to include small amounts of red meat in the diet, such as beef, lamb and pork. As a guide, keep meat to about 2 – 3 meals per week.
- ♥ Keep portion sizes to about 3 oz maximum of cooked meat.
- ♥ Try to choose the leanest cuts you can afford, and remove any visible fat.
- ♥ Drain away as much fat as possible during the cooking, especially when using mincemeat.
- ♥ If you eat sausages and burgers then choose the leanest you can afford, and grill them well to drain the fat away.
- ♥ Lean cooked cold meats are suitable, for example ham
- ♥ Grill bacon well and cut off the thick rind



Chicken and turkey are better choices but try to avoid the skin which is the fattiest part. If you eat a lot of red meat then replace some meat meals with poultry.



Try to avoid processed meat products such as : meat pies, pasties, steak puddings, sausage rolls, black pudding, pate, fatty sausages such as salami

## What about nuts and seeds ?

The fat in nuts and seeds is mainly polyunsaturated and monounsaturated, so it is fine to include these in moderation. They are also rich in fibre and some vitamins. They do contain a lot of fat, so they are high calorie foods. If you are trying to lose weight it is probably best to avoid nuts except as an occasional treat. If you are not overweight then you can include up to a tablespoon of nuts daily.

Some breakfast cereals have nuts and seeds already added. Some breads also have seeds added.

The best nuts to include are listed below :

### Nuts rich in monounsaturates

Peanuts and peanut butter  
Almonds  
Hazelnuts

### Nuts rich in omega-3 polyunsaturates

Walnuts

Other nuts are higher in fats which are not so cardioprotective, so should only be eaten occasionally. Coconuts are high in saturated fat so are best avoided.

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## Using less salt

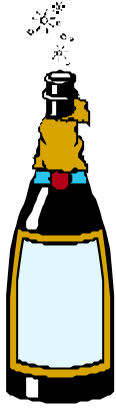
There is some evidence that reducing salt intake can lead to small reductions in blood pressure for those who have high blood pressure. It is therefore wise to avoid excessive intakes.

Use a little salt in cooking if you like, but try not to add more at table.

Try using more herbs, spices, mustard and pepper to flavour foods.

Salt substitutes are not recommended as they are rich in potassium and can cause blood levels of potassium to rise too high in some people.





## **Go easy on alcohol**

Alcohol is acceptable and enjoyable in moderation but if you are unsure whether it is safe to drink with any medication you may be taking, then check with your doctor or pharmacist.

Keep to safe drinking limits – that's a maximum of 2 units of alcohol per day for women and a maximum of 3 units per day for men.

A unit of alcohol is :

- Half a pint of ordinary strength beer, lager or cider
- One glass of wine
- One glass of sherry
- One measure of spirit

Remember that alcohol is high in calories so if you are trying to lose weight then keep it to a minimum.

Low alcohol drinks are useful but still contain some calories

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## **Watching your weight**

Losing even some excess weight can be helpful. Weight loss can help to reduce cholesterol levels, blood pressure and other health problems.

Here are a few tips if you need to lose weight: -

- Set a realistic target weight and aim for a gradual loss of 1-2 lbs per week maximum. Weigh yourself once a week on the same scales at the same time of day and with the same clothes on. Keep a record of your progress. Get a friend or relative to help and encourage you.

- Eat regular meals but reduce the amount of food you eat at the meal, except for vegetables and salad which you should eat freely. Some people find it helpful to use a smaller plate.
- Choose fresh fruit or fruit tinned in natural juices, or natural or low fat calorie yoghurts instead of a pudding.
- Use sugar-free or low calorie drinks. Have plenty of drinks to stop you feeling hungry.
- Replace any sugar you use with an artificial sweetener if you can't manage without.
- Use one of the recommended 38% fat spreads.
- Avoid the foods and drinks which are high in fat and/or sugar : fried foods, chips, crisps, Bombay mix, pies, puddings, samosas, pastry, cakes, biscuits, nuts, sweets, chocolates, toffees, mints, sugar, honey, syrup, jam.
- Fill up on vegetables, salad and fruit. Eat plenty everyday.
- Eat starchy foods in moderation (bread, potatoes, chapatis, pasta, rice, cereals). Choose the wholegrain ones recommended previously, to help you feel more full.
- Enjoy your mealtimes and eat slowly. Try to avoid nibbling between meals.
- Plan your meals and shopping in advance. Try not to shop when you are hungry.

**If you are struggling to lose weight then ask to see if your Practice Nurse or Dietitian can give you some help and support.**

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## **Being more active**

Exercise makes your heart stronger and helps to reduce cholesterol levels and blood pressure. It also helps you to control your weight. However it is important that you exercise safely and find an activity that is suitable for you, especially if you already have any heart or other health problems.

Always check with your doctor if you are unsure about any activity.

The most effective type of activity for the heart is endurance exercise where the heart rate and breathing is increased. Examples include : brisk walking, swimming, cycling, or gentle jogging.

Warm up and cool down exercises are essential before and after any of these activities.

An 'Exercise on Prescription' or 'Fine Fettle' scheme is available in some Practices. Ask your GP or Practice Nurse if you are interested in this.

**This advice in this leaflet is based on current evidence. As new evidence becomes available it may be necessary to update the information. The leaflet should therefore not be used after the end of 2003.**

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**The Department does not accept responsibility if this leaflet is issued inappropriately by non dietetic staff.**

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