

# How to Follow the Mediterranean Diet

Adopting a Mediterranean Diet can be easy and inexpensive. This leaflet is about the types and amounts of ingredients to eat in order to get maximum health benefit from the diet.

## The health benefits

The typical Western diet is high in animal fats and preservatives, but low in fruit and vegetables. Decades of high quality scientific research have shown this food combination is partially responsible for triggering many chronic diseases and cancers currently prevalent in the UK and other industrialised nations.

Research has also shown that following a Mediterranean Diet can drastically reduce the chance of developing conditions such as heart disease, Type 2 diabetes, high blood pressure, obesity and even Alzheimer's disease. (See separate leaflet called '*Health Benefits of a Mediterranean Diet*' and Note 1.)

So, switching from a Western to a Mediterranean Diet represents a healthy lifestyle choice. It can reduce the risk of a premature death and increase the chance of a healthy retirement, free from long-term medication. And, unlike long-term medication, the Mediterranean Diet has no known damaging side effects.

## The Mediterranean Diet

The term 'Mediterranean Diet' describes a specific mix of dietary food ingredients, shown, through extensive study, to promote health and longevity in peoples from many countries including the UK and US.

The word 'Mediterranean' refers to the origins of the diet, rather than any requirement for those observing it to eat Greek or Italian foods (see Note 2) - although, such culinary experimentation can be extremely enjoyable and rewarding.

When planning ingredients for Mediterranean style meals, it is worthwhile including lots of variety. For example, using a range of fruit and vegetables gives the body maximum access to sources of vitamins, minerals and other trace nutrients. And this is quite logical, when you realise that it's only in recent times supermarkets have been able to make the same foods available throughout the year, counteracting natural seasonal variety in the human diet.

The over-use of salt in flavouring Western style meals and fast foods has been linked with increased blood pressure. The healthy alternative is to replace the excess salt with herbs, as Mediterranean folks have done for millennia. This can also add magical new flavours to quite simple pasta and rice dishes and stews.

## General principles

The Mediterranean Diet is not about quick fix 'superfoods', beloved of food writers. Nor is it a strict list of prohibitions preventing occasional excess. Rather, the Mediterranean Diet is a formula for healthy day-to-day eating over the long term. Here's a quick guide for those



who'd like to dip their toes in the warm, blue waters of a Mediterranean Diet:

- Maximize your intake of vegetables, legumes, fruits and whole grain cereals.
- Limit your red meat intake - fish and poultry are healthy substitutes.
- Where possible, use mono-unsaturated olive oil or rapeseed oil in place of animal fat such as butter or lard.
- Limit your intake of highly processed 'fast foods' and 'ready meals', where you cannot tell saturated fat and salt intake.
- Eat no more than moderate amounts of dairy products, and preferably low fat ones.
- Do not add salt to your food at the table - there is already plenty there.
- Snack on fruit, dried fruit and unsalted nuts rather than cakes, crisps and biscuits.
- ~~Drink (red) wine during meals~~  
USE RED GRAPES
- Water is the best "non alcoholic beverage" (as opposed to sugary drinks). Although health benefits have also been claimed for various teas and coffee (see Note 3).

## Mediterranean Diet ingredients

Now, let's consider what sorts of food we need to eat to follow a Mediterranean Diet. The World Health Organisation (and the UK Government Change4Life campaign) recommend we eat five portions of fruit and vegetables a day. This guidance is partly based on, and entirely consistent with, research into components of the Mediterranean Diet (see Note 4).

### Health-promoting food types to be encouraged

The following contain essential nutrients and have health promoting properties.

#### Vegetables and Fruits

<b>Examples</b>	<i>Vegetables:</i> onions, cabbage, courgettes, cucumbers, carrots, spinach, leeks, broccoli, asparagus, lettuce, cauliflower, aubergine, garlic and peppers. <i>Fruit:</i> oranges, grapes, apples, bananas, pears, melons, plums, cherries, pineapples, olives, figs - and, perhaps surprisingly, tomatoes.
<b>Also</b>	Tinned vegetables and fruit, vegetable soups and juices, dried fruit, fruit juice. Potatoes, often thought of as vegetables, are discussed separately below.
<b>Analysis</b>	High in fibre, anti-oxidants and vitamin C.
<b>Benefits</b>	Help reduce risk of heart and vascular disease, cancers and bowel problems.
<b>Risk in Excess</b>	None known.

#### Cereals - wholemeal where possible

<b>Examples</b>	Wheat, barley, oats, millet, corn and brown rice.
<b>Also</b>	Found in cereal flakes, muesli, porridge, wholemeal pasta, wholemeal bread, spaghetti, couscous, polenta, crisp bread, biscuits.
<b>Analysis</b>	Proteins, carbohydrate, fibre, vitamins, minerals, anti-inflammatory agents.
<b>Benefits</b>	Associated with decreased bowel problems, including cancers, lowered 'bad' blood fat and decreased heart disease.
<b>Risk in Excess</b>	None known (some people are intolerant to gluten).



### Legumes (grow in pods)

<b>Examples</b>	Peas, beans, lentils, chickpeas, peanuts (they're not really nuts).
<b>Also</b>	Representatives from this versatile group can be spotted piled on plates (humble baked beans or peas), as bases for tasty soups and stews (eg lentils) or in Mediterranean style dips (eg humous).
<b>Analysis</b>	Protein, carbohydrate, fibre, vitamin B, vitamin C.
<b>Benefits</b>	Associated with reduced risk of heart and vascular disease.
<b>Risk in Excess</b>	None known.

### White and Oily Fish (and seafood)

#### *White fish and shellfish:*

Sole, cod, plaice, haddock, hake, halibut, sea bass, turbot, whiting, mullet, tinned tuna, squid, mussels, prawns, crab, lobster.

#### *Examples*

whitebait, sardines, pilchards, anchovy

#### *Whole fish:*

salmon, mackerel, herring, trout, fresh tuna

#### *Also*

Fish liver oil.

#### *Analysis*

Protein, essential vitamins, minerals. Oily fish (and some shellfish) contain cardio-protective omega 3 fatty acids, vitamins A and D. Whole fish are a source of calcium and phosphorus. Shellfish are also good sources of trace minerals.

#### *Benefits*

A mix of oily and white fish in the diet is an alternative source of protein that reduces the risk of heart disease and heart beat irregularities.

#### *Risk in Excess*

Some oily fish contains low levels of pollutants. Pregnant women and those trying for a baby should limit intake of certain types of fish (see Food Standards Agency website - reference below).

## Beneficial food types, to be carefully measured

The following Mediterranean Diet components contain essential nutrients and have health promoting properties. However, there are known health risks if consumed in excess.

When cooking Mediterranean style meals, unsaturated oils are used to replace saturated animal fats, such as butter and lard (see Note 5). If you smother your healthy vegetables with a cream or cheese based sauce, then you'll be adding saturated fat - so, how about cutting back on the saturated fat by using a smaller amount of a stronger cheese? Vegetables roasted with small amounts of olive oil are delicious. Why not clean the plate with un buttered, tasty, wholemeal bread?

Many 'fast foods' are designed to tempt the palate, but contain high levels of unhealthy saturated fat, trans-fat (heat degraded fat) and salt.

Overall, although typical Western and Mediterranean Diets can have a similar total fat content, the Mediterranean Diet is high in health-protective mono-unsaturated fat, whilst being low in artery-clogging saturated and trans-fat (See Note 6).



### Mono-unsaturated Oils (fats)

<b>Examples</b>	Olive oil (the traditional Mediterranean oil) and rapeseed oil (made in the UK).
<b>Also</b>	Found in olives, nuts and seeds, avocados.
<b>Analysis</b>	High in mono-unsaturated fat, low in saturated fat, high in calories (kcal). Also contains essential fatty acids and assist with vitamin absorption. Types of fat found in oils are normally listed on the back of the bottle. These oils are quite stable and don't degrade into toxic components when heated.
<b>Benefits</b>	Help protect against heart disease, some cancers (eg breast) and assist in lowering blood pressure.
<b>Risk in Excess</b>	Mainly through risk of obesity due to high energy content.

### Lean White Meat

<b>Examples</b>	Chicken, turkey and other poultry.
<b>Also</b>	Chicken fast food, turkey burgers, processed pies - generally high in animal fat and therefore not counting as lean white meat.
<b>Analysis</b>	Lean white meat without skin is high in protein, vitamins (including vitamin B12) and minerals, but with much less saturated animal fat than red meat.
<b>Benefits</b>	Contains essential nutrients.
<b>Risk in Excess</b>	Mainly from ingesting too much saturated fat.

### Nuts and Seeds

<b>Examples</b>	<i>Nuts:</i> Almonds, chestnuts, walnuts, cashew nuts, Brazil nuts. <i>Seeds:</i> pumpkin, sunflower, sesame, poppy.
<b>Also</b>	Found in muesli, seeds on breads, on cakes etc.
<b>Analysis</b>	Protein, fibre, vitamins and minerals. Nuts are high in 'good' unsaturated fats.
<b>Benefits</b>	Helps protect against heart disease, Type 2 diabetes and reducing 'bad' blood cholesterol. Nuts possibly help body mechanisms control weight.
<b>Risk in Excess</b>	Is high in energy and therefore traditionally thought to be associated with weight gain in excess. Avoid salted nuts - high salt intake is associated with high blood pressure. People with nut allergy should avoid nuts.
<b>A tip</b>	Try having dried fruit, unsalted nuts or seeds as a snack in place of cream cakes, doughnuts or chocolate biscuits.

### ~~Wine – particularly red wine~~ USE RED GRAPES

<b>Examples</b>	A huge range of red wines are available. Each prepared by fermentation of juice extracted from one or more varieties of grape.
<b>Also</b>	Used in cooking.
<b>Analysis</b>	Alcohol, anti-oxidants and anti-inflammatory chemicals. High in calories.
<b>Benefits</b>	In small, regular, amounts can help protect against heart disease. Appears to have added effect if drunk with Mediterranean style meals.
<b>Risk in Excess</b>	Regularly exceeding recommended limits (three units per day for men and two units per day for women) increases the risk of addiction, cirrhosis, heart disease and cancer eg breast. Pregnant women should not drink any alcohol.

### Restricted foods

The following foods contain essential nutrients, but also carry significant health risks if consumed in excess.

### Eggs

<b>Examples</b>	Hens' eggs, ducks' eggs, quails' eggs ...
<b>Also</b>	Extensively used in sauces, baking, omelettes, tarts, quiches, pancakes, mayonnaise, custard, pasta ...
<b>Analysis</b>	Protein, iodine, essential vitamins (B2, A, D) and minerals. They are also high in cholesterol.
<b>Benefits</b>	Essential nutrients.
<b>Risks in Excess</b>	Associated with an increased risk of Type 2 diabetes. Potential heart and vascular disease risk.

### Milk and Dairy Produce

<b>Examples</b>	Milk, yoghurt, cheese, butter, cream, fromage frais.
<b>Also</b>	Sauces, desserts, creamy curries, etc.
<b>Analysis</b>	High in protein, vitamins A, B12 and calcium. Dairy products can also be high in 'bad' animal fats. Cream and butter are particularly high in fat. Cottage cheese, mozzarella and feta are some of the lower saturated fat cheeses. Ricotta is a high fat cheese. Semi-skimmed milk is lower in fat than full cream milk. Some products have added salt.
<b>Benefits</b>	Calcium is needed for strong bones.
<b>Risk in Excess</b>	Increased risk of heart and vascular disease, and raised 'bad' blood cholesterol due to the saturated fat content.
<b>A tip</b>	Full cream milk is rich in calcium, but also in saturated fat. Selecting semi-skimmed milk, low fat yoghurts and lower fat cheeses can help reduce bad unhealthy fat intake. Cottage cheese, mozzarella and feta are some of the lower saturated fat cheeses. Ricotta is a high fat cheese (see Note 3).

### Red Meat

<b>Examples</b>	Beef, <del>pork</del> EXCLUDE PORK, lamb.
<b>Also</b>	Found as mince and processed in pies, sausages and fast food.
<b>Analysis</b>	High in protein, vitamins (including vitamin B12) and minerals (eg iron). Generally high in saturated animal fat. Lean cuts contain less fat.
<b>Benefits</b>	Contains essential nutrients. But these can also be obtained from white meat, fish and vegetables.
<b>Risk in excess</b>	Increased risk of cardiovascular disease and raised 'bad' blood cholesterol.
<b>A tip</b>	One way of reducing red meat intake is to save it for special treats, eg Sunday roast. Alternatively, portions of red meat can be divided up and used throughout the week by mixing with vegetables in rice and pasta dishes.

### Potatoes

<b>Examples</b>	There are many varieties associated with different cooking processes.
<b>Also</b>	Found as chips and crisps. Used in pies and processed food.
<b>Analysis</b>	A good source of energy, fibre, B vitamins and potassium. They also contain vitamin C. They are high in starch, which is rapidly converted to glucose. Potatoes are often thought of as a vegetable, but have different properties so counted separately from vegetable intake.
<b>Benefits</b>	From nutrients and fibre.
<b>Risk in Excess</b>	High available starch content associated with increased risk of Type 2 diabetes.

<b>Sweets and Sweet Desserts</b>	
<b>Examples</b>	Chocolates, sweets, creamy desserts, biscuits, rich cakes.
<b>Also</b>	Processed, 'ready made' desserts.
<b>Analysis</b>	Many products are high in sugar and saturated fats and high in Calories. Often low in vitamins and minerals.
<b>Benefits</b>	Calcium content, if milk based. Dark chocolate and cocoa contain flavonoids (anti-oxidants). Research is continuing into whether small amounts of dark chocolate can help protect against heart disease.
<b>Risk in Excess</b>	Sweet foods damage teeth. Increased risk of heart and vascular disease, type 2 diabetes, obesity.
<b>A tip</b>	You already knew eating too many sweet desserts and chocolates might be an unwise choice. But, perhaps these foods will be even more delicious when served as occasional treats? How about substituting fresh fruit and yoghurt?

## A note on weight reduction

Research shows that people who adopt a strict Mediterranean Diet (such as the one described below), and take regular exercise, often find this helps keep their weight under control. Mediterranean style meals, packed with fruit, veg and grains can be quite filling, reducing any desire to top up with extra calories.

If this doesn't do the trick, then you may need to reduce your energy intake and/or increase your physical activity. The recommended way to find out whether you need to lose weight is to measure your Body Mass Index (BMI) (See separate leaflet on '*Obesity and Overweight*'). If you'd like to take control of weight loss and still follow a varied Mediterranean Diet, then you can do this by:

### Reducing energy intake

In the notes above, we've given an indication of the high energy foods. If you go wild with oil, nuts with the nuts, or take too much alcohol or sugary drink, your body may take in more energy than it needs and store it as fat. If excess weight remains a problem, then it is worth seeing if you can reduce calorie intake levels.

### Increasing exercise

It is recommended that, where possible, adults undertake (at least 30 mins) daily exercise, which can be as straight forward as taking long walks, jogging, cycling or swimming, so as to sustain a minimal level of fitness. This also helps the body regulate weight. Body regulatory mechanisms tend to get a bit sluggish if left sitting around for too long. Any extra exercise will help burn excess calories and fat.

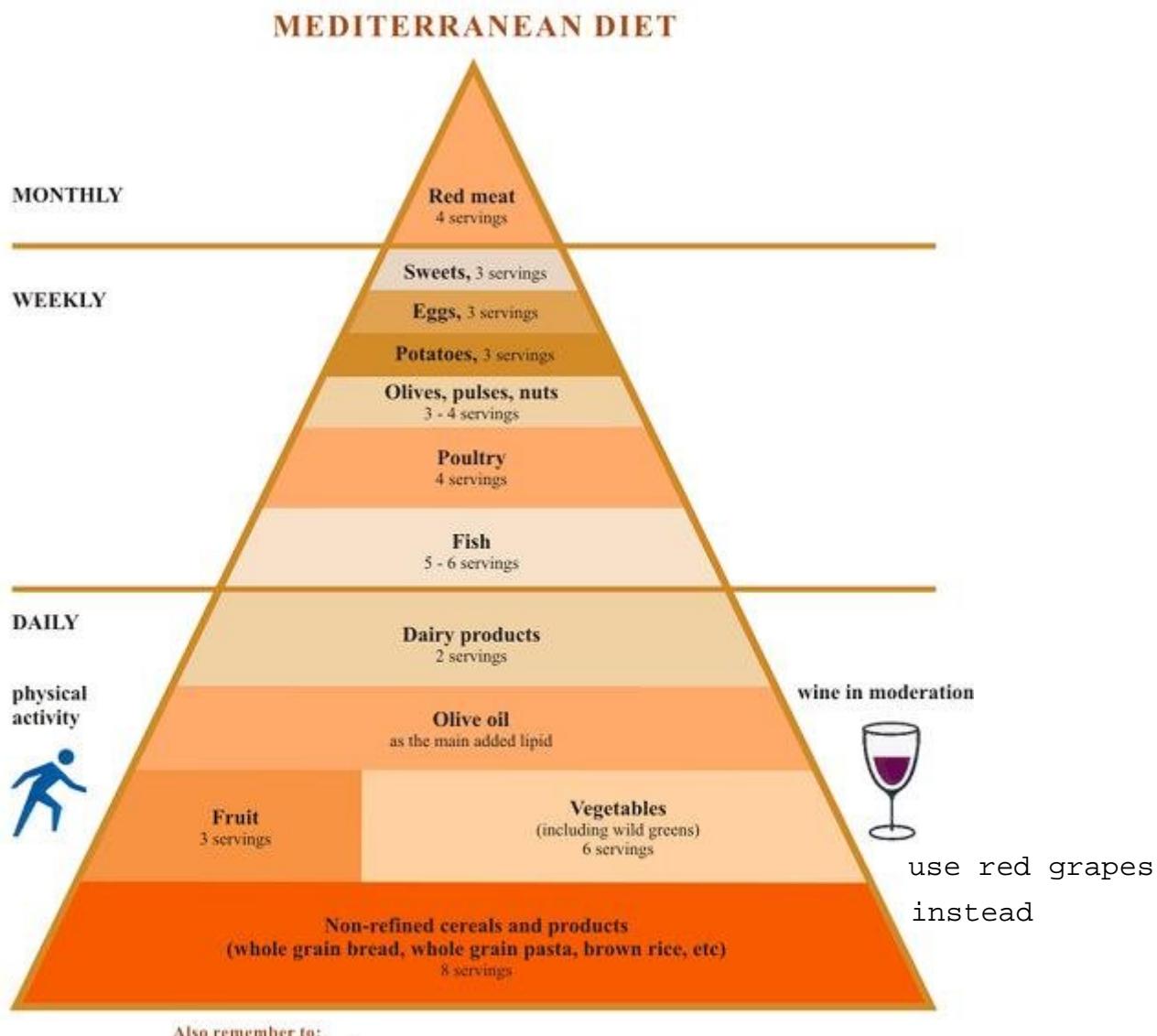
See separate leaflet on '*Weight Reduction - How to lose weight*'.

## Reducing other health risk factors

Sticking to a Mediterranean Diet and keeping active goes a long way to keep you healthy and to reduce your risk of various serious diseases. But remember, it is part of a 'package' of things that you can do to keep healthy. The other main things that you can do are to not smoke, and have your blood pressure checked every 3-5 years (unless advised more often by a doctor or nurse). Oh, and if you are fortunate enough to go to the 'Med' to try the diet in its natural surroundings - remember to keep out of the sun as much as possible!

## Adopting a strict Mediterranean Diet

Scientific research has shown that the closer individuals can get to the 'ideal' Mediterranean Diet, outlined in the pyramid chart below, the greater the health advantage - in that, the benefit of adopting the whole dietary pattern exceeds the summated health-giving properties of its individual components.



A guide to portions or servings described in the pyramid is as follows:

- **Vegetables:** a cup of raw leafy vegetables or half a cup of other vegetables.
- **Potatoes:** 100g.
- **Legumes:** one cup (100g) of cooked dry beans.
- **Nuts:** 30g. Eat as a snack or sprinkle on food for added taste.
- **Fruit:** one apple, banana, one orange, 200g of melon or watermelon, 30g of grapes.
- **Meat:** 60g of cooked lean meat or fish.
- **Grains:** half a cup (50-60g) of cooked pasta or rice; one slice of bread (25g).
- **Dairy:** one cup of milk or yoghurt; 30g of cheese.
- **Eggs:** 1 egg.
- **Wine:** 125ml glass of average strength red wine.

## In summary

The strict Mediterranean Diet has been assessed and found to contain all the essential nutrients required for normal health. But, more than this, it also prevents excesses of ingredients linked to ill-health.

<b>Mediterranean Diet - Overall</b>	
<b>Examples</b>	The Mediterranean Diet is based on a traditional mix of foodstuffs eaten by peoples of the Eastern Mediterranean - particularly Crete and southern Italy.
<b>Also</b>	The diet has been tested in Western industrialised countries such as the UK and USA.
<b>Analysis</b>	High in fruit, vegetables, legumes and cereals. Fish and white meat mainly eaten in place of red meat. Mono-unsaturated oils used in place of saturated animal fats. Moderate red wine intake with meals.
<b>Benefits</b>	Exceptional reductions in risk of early death, heart disease, cancer and chronic conditions such as hypertension, high cholesterol and Type 2 diabetes. Also reductions in Parkinson's disease and Alzheimer's disease risk. Adoption of the diet has proved a successful strategy for healthy weight reduction.
<b>Risk in Excess</b>	The Mediterranean Diet maximises the intake of health-promoting ingredients, whilst minimising quantities of ingredients associated with health risks. Those adopting the Mediterranean Diet are likely to have a lower risk of disease than those who don't.

## Notes

- 1: In the mid-1900s, it was discovered that certain peoples of the Eastern Mediterranean (particularly Greece and southern Italy) lived longer, disease free lives than peoples in industrialised Western countries, including the UK, even though those in the West had easy access to sophisticated health services. A key reason turned out to be differences in diet. This led researchers to analyse and successfully test an ideal 'Mediterranean Diet' on Westerners.
2. From a historical perspective, many aspects of the traditional Mediterranean Diet, discussed here, were first introduced into Britain back in Roman times, when locals also ate a lot of 'Celtic beans'. Of course, this was before Western civilisation entered its Dark Ages. So, perhaps the Mediterranean Diet should be listed as one of the things 'the Romans did for us'?
3. It is recommended that we drink at least 6-8 glasses of non-alcoholic fluid through the day, to prevent dehydration in the temperate UK climate. More would be required in hotter weather.
4. Legumes, eg beans, feature in the Mediterranean Diet and count as one of the WHO daily fruit and vegetable portions.
5. Traditional Mediterranean folks of old considered butter to be only fit for barbarians. Toast drizzled with a little olive oil, herbs and garlic is still a popular Mediterranean snack.
6. Sunflower oil is often used for cooking in the UK. It is a 'polyunsaturated fat' that is healthier than saturated animal fats.

## Try it for yourself

If you'd like to try the full Mediterranean Diet at home, we've translated the pyramid into this handy tick-chart of food to be consumed through the week (as used by the author).

Strict Mediterranean Diet - Individual Weekly Portion Count		Week
Name:		
Red Meat		restricted
Sweets		restricted
Eggs		restricted
Potatoes		restricted
Legumes, Nuts, Olives		
Poultry		
Fish		
Dairy		
Olive oil	Use olive oil or rapeseed oil as main added or cooking fat	
Fruits		
Vegetables		
Bread, Pasta, Rice		
(Red) Wine		
Serving count		
		safe adult max for male (m) / female (f)
1	m/f	
2	m/f	
3	m/f	
4	m/f	
5	m/f	
6	m/f	
7	m/f	
8	m/f	
9	m/f	
10	m/f	
11	m/f	
12	m/f	
13	m/f	
14	m/f	
15	m	
16	m	
17	m	
18	m	
19	m	
20	m	
21	m	
22		
23		
24		
25		
26		
27		
28		

Chart shows food type portion targets to aim for. Those without restriction can be exceeded. See accompanying bullet-point guide for portion sizes. If you know your body reacts badly to one or more foods eg nuts, milk, gluten - then you should avoid them.

It is the author's experience, that using the tick-chart for several weeks helps educate the eyes and palate in what to buy and cook, as well as what to avoid on restaurant menus and TV cookery programmes. So, over time, the healthy Mediterranean Diet can become a natural part of your way of life and, indeed, part of you. It's probably the closest science can currently get to a 'user guide' for fuelling the human machine.

So, enjoy!

(And let us know how you got on by following the 'Please add your experience' link below - If you have any favourite Mediterranean style recipes, please pass them round).

## References

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