

## *The Mediterranean Diet*

*by Carlos Mirasierras*

*The Mediterranean diet (MD) is known as a way of eating and is based on the idealization of some dietary patterns of the Mediterranean countries, which includes the following: Spain, southern France, southern Italy, Greece and Malta. The MD was declared Intangible Heritage of humanity on November 16, 2012. Its candidacy had been previously proposed by the Spanish government in 2007, but was rejected at the international conference that UNESCO held in Abu Dhabi. The main features of this food model are a high consumption of vegetable products (fruits, vegetables, legumes, nuts), bread and other cereals (wheat being the staple food), olive oil as the main fat and a regular consumption of wine in moderate amounts.*

### ***Benefits***

*The health claims attributed to this model are based on the fact that while in the Mediterranean countries a higher amount of fat is consumed than in the United States, the incidence of cardiovascular diseases is much lower. The reasons for these properties seem to be an increased consumption of foods rich in monounsaturated fatty acids that can be found in olive oil (as oil reduces the level of cholesterol in blood) Also the consumption of fish, especially oily fish, which is rich in fatty acids omega-3 and, finally, a moderate consumption of red wine*

*contribute to these low levels (because of the anthocyanins). Wine is also associated with another cardio-protective effect known as the French paradox. It seems that the Mediterranean diet is associated with a reduced risk of mild cognitive impairment both during aging and during the transition stage from dementia, or mild cognitive impairment, to Alzheimer's disease. Carrying a Mediterranean diet regimen is associated with lower rates of abdominal obesity, which predicts the risk of diabetes, hypertension, stroke or cerebrovascular accident. In a study conducted in 2012 in a sample of 11,000 university students, it was found that people who followed a Mediterranean diet regularly got better scores on the "Health-Related Quality of Life Scale (HRQOL)", which is related to quality of life, and which includes variables for both physical and mental health.*

## **History**

*The first scientific references to the Mediterranean diet are from 1948, when Leland G. Allbaugh studied the way of life of the inhabitants of the island of Crete and, among other things, their diet compared with that of Greece and the U.S. For his part, the American physiologist Ancel Keys, who led a study on heart disease, blood cholesterol and lifestyle of seven countries (Italy,*



*Yugoslavia, Greece, Holland, Finland, USA and Japan) after World War II, also contributed to the spread of this diet. Keys and his colleagues noticed that the incidence of coronary heart disease was lower in rural areas of southern Europe and in Japan. They suspected that there was a protective factor in their lifestyle, which they labeled as "Mediterranean way".*

*They described this lifestyle as "very physically active (for the low level of mechanization of agriculture), their frugal, and a predominant intake of vegetables and a reduced consumption of animal products." The subsequent dissemination of results assimilated the concept of "Mediterranean style" with the "Mediterranean diet".*

## **Review**

*This diet, as it was raised, has never been traditionally consumed in any Mediterranean country. Epidemiological studies show that consumption of eggs, for example, would stand at around 10 eggs per week, consumption of meat or fish is daily, and the consumption of ice cream and other sweets was comparable*

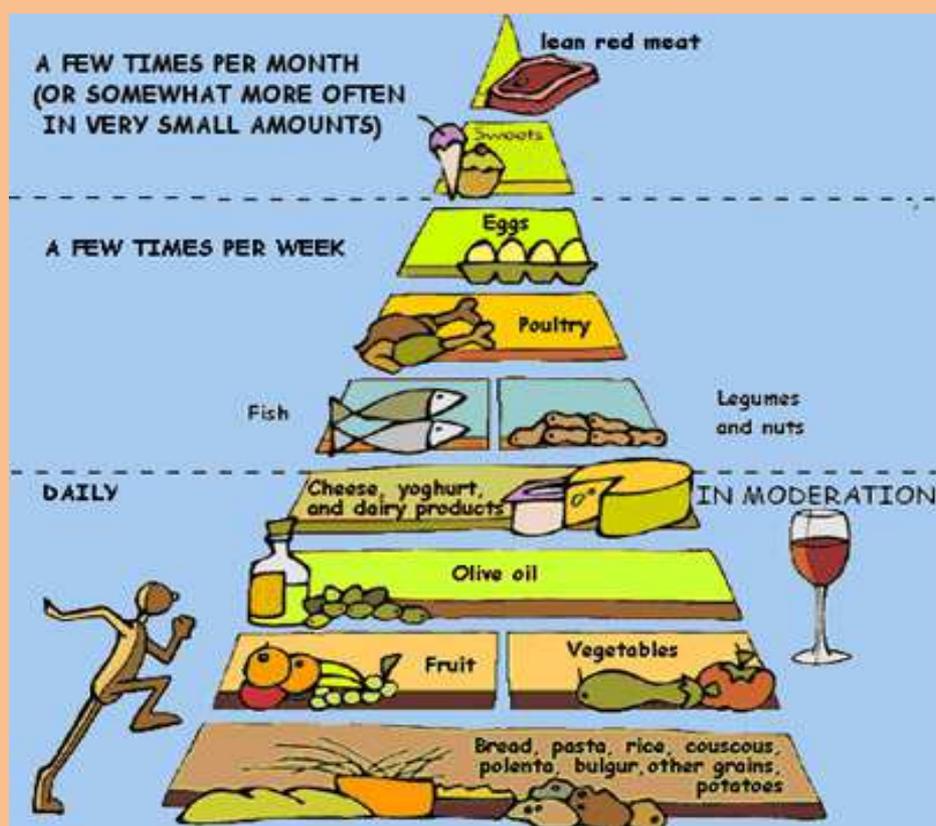
to that of fruit for dessert, etc. When Keys analyzed the diet of Crete in the 1950s food was rationed, and perhaps at that time the daily diet of Cretans was more like the one he proposed.

Furthermore, Keys used the health image projected on Americans by the Mediterranean countries to formulate a rational diet, as the American diet of those days contained certain products in excess (meat, eggs and butter) and ignored others (vegetables and fish). He eventually formulated a diet predominated by plant products, which was complemented with fair amounts of meat and fish.

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### **Mediterranean Diet: Food, quantities and frequency**

The Mediterranean diet is so talked about that we often forget to follow it. This table shows the food pyramid and its frequency of consumption for a healthy adult. It was made by nutrition experts from the World Health Organization, Oldways Preservation and Exchange Trust and FAO.



## ***These are the main features***

- 1. Abundance of plant foods, fruits, vegetables, bread, pasta, rice, grains, beans and potatoes*
- 2. Eating seasonal foods in their natural state, and always choose the freshest ones*
- 3. Use olive oil as the principal fat, both for frying and for flavoring*
- 4. Consume moderate amounts of cheese and yogurt*
- 5. Consume, on a weekly basis, moderate amounts of fish, preferably oily fish, poultry and eggs*
- 6. Eat nuts, honey and olives in moderation*
- 7. Red meat should be consumed a few times a month*
- 8. Drink wine in moderation, normally with meals, and preferably red wine*
- 9. Use herbs as a healthy alternative to salt*
- 10. Perform regular physical activity in order to exercise your heart and keep the joints and the physical tone fit.*

## ***More carbohydrates, fruits and vegetables***

### ***Carbohydrates***

*They provide 50% of total daily energy intake. It is advisable that they contain complex carbohydrates (pasta, rice, potatoes, bread and vegetables) rather than simple ones, such as ice cream and pastries. Fruits and vegetables, in turn, are rich in fiber, and are a good source of vitamins, minerals and antioxidants.*

### ***Fats or lipids***

*They should provide about 35% of total energy intake. Vegetable fats (from nuts, olive oil) are preferred to those of animal origin. One exception is oily fish (mackerel, tuna, sardines ...), as it is a polyunsaturated fat that helps prevent cardiovascular problems.*

- The intake of saturated fatty acids should be below 10%*
- The polyunsaturated fatty acid intake should not exceed 8% of energy consumption*
- The intake of monounsaturated fatty acids energy should provide a maximum of 15%*

## **Proteins**

*They provide 15% of the total energy. Proteins help the body regenerate body tissues. Animal proteins (eggs, milk, meat and fish) are more complete than those provided by plant foods (legumes and cereals). However, when duly combined with rice or lentils, they provide a similar quality protein as that of animal origin, but without cholesterol or saturated fats.*

## **Vegetables: properties and nutrients**

*Vegetables and plant foods give us a low calorie density foodstuff, but they are rich in vitamins and minerals. When eaten fresh, it is advisable to adjust their consumption to their seasonal availability in order to take advantage of all the micronutrients in them. Veggies should have to be more present in our daily diet, and especially for the youngest, whose palate seems to be only fond of the taste of simple carbohydrates, so to turn them into the main part of the diet is a healthy and tasty claim.*



## **From garnish to main dish**

*Veggies can make up the most varied dishes when prepared in salads and include food stuffs from other groups, such as meat, fish, cheese, pasta, rice or vegetables, so finally we have come across a balanced and nutritional diet.*

## **Four reasons to eat more vegetables and plant foods**

### **Potassium and sodium**

*Garden produce and vegetables are rich in potassium and help eliminate fluid retention, which is typical of high-sodium foods. Therefore, by eating plants and vegetables, we prevent hypertension and swelling of legs and belly caused by fluid retention. Vegetables are also rich in other minerals, such as iron, zinc, phosphorus, potassium, calcium, magnesium or copper, while these are essential micronutrients for the proper functioning of our body.*

### **Fat and calories**

*Garden produce and vegetables are fat-free and low-calorie foods, so they help keep the weight off and fight obesity. The result is less cholesterol and triglycerides and, therefore, less cardiovascular pathologies.*

## ***Vitamins, fiber and antioxidants***

*The vitamin content of vegetables and plant foods is very beneficial for our bodies. For example, vitamin A and C reinforces our defenses against infection, while B-group vitamins strengthen our nervous system. Roughage helps regulate intestinal transit, and antioxidants, in turn, significantly reduce aging and prevent the development of certain tumors.*

## ***Properties and nutrients of some veggies***

### ***Onion***

*It's rich in vitamin C and zinc, and it is preferable to eat it uncooked. It helps, among some of its benefits for the body, to remove cholesterol, regulate blood fat level or prevent atherosclerosis. It's highly recommended for circulatory problems.*

### ***Broccoli, cauliflower, cabbage, red cabbage***

*This family of vegetables are rich in vitamin C, A, B1 and B2, and help absorb iron much better. One of the symptoms of low iron levels in blood is a constant fatigue and lack of energy. They are also rich in beta carotene, which has excellent effects on tissue nutrition, and help you get a good-looking skin.*

### ***Asparagus***

*They are the body's natural cooling agent. Ninety-five percent of its composition is water. They are rich in minerals, such as potassium, phosphorus, calcium, copper and magnesium and vitamins B1, C, A, E, as well as folic acid. They are characterized as tonics, diuretics and laxatives because they are high in fiber, but are not indicated for kidney patients.*

### ***Spinach***

*They are noted for their high content of iron and magnesium, and they are also a good source of calcium. They are rich in folic acid, which is regarded as an anti-anemic vitamin necessary during pregnancy and for a proper development of the fetus. It also contains vitamin C and A.*

### ***French beans***

*They are rich in vitamin C, iron, potassium, phosphorus and folic acid. They help regenerate the blood, so they are very suitable for people with anemia. They are easily digestible and help regulate blood sugar and blood cholesterol.*

### ***Lettuce***

*This basic ingredient of salads is characterized as a source of lactic acid and iron. It is also a natural relaxant because of its sedative effect on the nervous system.*

### ***Tomato***

*Its key element is its intense red color, which is a symptom of its high content of lycopene, this being a type of carotene whose virtue is to be a powerful antioxidant. Furthermore, tomatoes are rich in vitamin C and E and have a high potassium content.*

***Tomatoes have been and continue to be the main component of numerous studies that confirm their properties and health benefits.***



*When they arrived in Spain from America, it was grown as an ornamental plant. It was considered toxic and unfit for food. Gradually, this idea disappeared and in the eighteenth century it became an ingredient in recipes, just as a letter of that time reveals. Recent studies have demonstrated that tomatoes contain lycopene, which is a pigment that generates its distinctive red color and is ultimately responsible for its beneficial effects on our body. Other fruits like watermelon, carrot, apricot, etc., also contain lycopene, but tomatoes contain the maximum amount of it. One of its functions is to delay the oxidation of cells, so it is a great antioxidant. This substance is released during the cooking process. This is why, those who practice the Mediterranean cuisine, where tomato and frying sauces are abundant, can get a better intake of lycopene. Tomatoes are a rich source of vitamins C and A, and*

*have also minerals, such as iron, phosphorus, calcium, magnesium, zinc, copper, potassium and sodium. Therefore, they are known for their mineralizing and detoxifying properties, while they eliminate the uric acid thanks to its diuretic effect. Other star ingredients are the flavonoid pigments, which are responsible for maintaining the integrity of cell walls, and thus making them less brittle and more permeable. It contains 20 calories per 100 grams, a fact that makes it a great ally in diets and regimes. Like many other vegetables and fruits, the tomato is an antioxidant, rich in vitamins and minerals that should be present in a healthy and balanced diet.*

### **Carrots**

*It is a vegetable rich in vitamin A, and essential for healthy skin and, in generally, it strengthens our defenses.*

### **Peppers**

*They are a food rich in vitamin C, B2 and E. They have plenty of nutrients with antioxidant effects that prevent premature aging. Its properties are achieved maximum when eaten raw.*

### **Beet**

*It is a vegetable with a high content of folic acid, vitamin C and iron.*

## **Vegetables, healthy energy for all ages.**

*In the history of mankind, and especially in the Mediterranean area, vegetables have always been key for their nutritional richness, and especially for their protein content, which, together with cereals included in the diet, have represented a quality protein intake when meat and fish were scarce and poorly distributed among the population. Today, they are still significant factors in our diet as the total protein intake should include vegetable*



*protein. Veggies are rich in vegetable proteins, carbohydrates, fiber, minerals and vitamins. They have an average caloric value of 300 calories per 100 grams and it is this level of calories what has led some people to remove them from their diet. However, this is a serious mistake. The reason: vegetables have a low glycemic index. So, one thing has nothing to do with the other.*

### ***Legumes have low glycemic indexes***

*In his latest book, "Eat, lose weight and not gain weight again," Montignac continues to develop his theory that weight problems result from the intake of high glycemic products. According to Montignac and many other specialists, extra kilos and nutritional deficiencies are due to energy stored abnormally as a consequence of some metabolic mechanisms implemented by choosing wrong food stuffs.*

### ***What did we eat just 50 years ago?***

*We used to eat legumes, lentils, chickpeas, beans, peas, etc., whole grains, fruits and veggies. As well as carbohydrates, or complex carbohydrates, which were and still are our main source of energy, together with a smaller percentage of lipids (fats) and animal proteins (meat and fish). These carbohydrates mentioned above have a common feature: their low glycemic index. Here is the key factor. The pancreas of our ancestors had little trouble with their insulin function. For millennia, food has had an identical glycemic nature, but a significant worsening of the diet has been observed in Western countries from the middle of 1900's..*

### ***In light of new research, diabetics can eat vegetables.***

*If a few decades ago the consumption of vegetables was forbidden for diabetics, today new data on glycemic indexes and their behavior has made possible to review certain recommendations. For example, the absorption of complex carbohydrate is very slow, so it allows diabetics to take vegetables.*



***Legumes*** include also a major component: fiber, which facilitates gastrointestinal processes, prevents constipation and intervenes in fermentation processes located in the intestine. It has been discovered that they are able to stimulate the selective growth of beneficial colonic bacteria for health. This feature determines the origin of the dreaded flatulence, but it seems, in light of the latest research, to

*reduce the risk of cancer and fight constipation. Lentils are the more digestible legumes. Bloating (and flatulence) derived from their digestive process can be prevented with traditional culinary preparation: soaking and simmering for several hours in order to 'break' the long chains of complex carbohydrates, and so increase their digestibility. Pressure cookers can also be used to shorten*

*cooking from several hours down to 10-15 minutes. This review on the properties of legumes also advises against the use of baking soda to soften lentils and make their digestion much easier. The reason: baking soda destroys vitamin B1, which is a vitamin that controls mood. Aside from proteins, fiber and carbohydrates, legumes are rich in B vitamins and minerals, such as iron and magnesium, while these are minerals that strengthen our defenses. They also contain calcium and phosphorus, and, strange as it may sound, legumes regulate the metabolism of lipoprotein, so in some countries they are prescribed as part of a low, but energetic, calorie diet. As anyone can imagine, any recipe that includes vegetable and fats is excluded from this recommendation to lose weight.*

### ***Thistle is very highly valued in Aragon, Navarre and Soria***

*Possibly, thistle is not too compatible with modern times, times that call for little or no preparation. One needs to spend time cleaning and cooking them, and, possibly, only those who really like vegetables and truly appreciate its nutritional value are willing to invest their time in these tasks.*

### ***It's a must to clean it thoroughly***

*Clean the thistle using a knife to remove the harder outer parts of the fronds, as well as the tendrils or filaments of the stems, and do this with an up-and-down movement to remove the fibrous parts as if they were being peeled. Otherwise, it could happen as with the outer leaves of artichokes: they can be chewed, but not eaten. The tiny leaves around the edge of the fronds must also be discarded, and then cut the fronds into pieces of about 5 cm. Once the thistle chunks are thoroughly clean, soak them in cold water, with lemon, parsley or flour, to avoid they turn black Use gloves to avoid your hands get a brownish color and a bitter taste.*



*It is said that it is better to buy two small thistles than a big one, as smaller ones are tastier. However, if we have a large thistle, it is better to cook it in two batches as it requires about an hour of normal cooking in a pot, and because there is the risk that the interior leaves -which are tender and whiter and are also known as the thistle-heart- get too cooked. So sometimes it's good idea to cook the most tender stalks on one side and less on the other.*

*Once thistles are clean and cut into pieces, they can be frozen after they have been scalded in boiling water for at least 5 minutes. The normal cooking time is almost an hour, but it depends on the type of water. In Aragon, where water is harder, around 50 minutes of cooking will be enough. It is recommended to boil thistles with a teaspoon of flour, so they to continue to maintain a nice color and it will also soften a bitter aftertaste.*

### ***The almond sauce, its favorite companion***



*Once thistle is cooked, reserving the cooking water. Fry two or three garlic cloves, finely chopped, in a pan with oil, without even let them take on some color. Add a handful of almonds and a little flour and stir it all well. Add the broth gradually, so that the flour acts as a thickener; just as if you were preparing a béchamel sauce, and let simmer about 5*

*minutes. Check the salt and process everything in the blender. Return the sauce to the pan, add the thistle a handful of the previously toasted almonds.*

### ***It's good for your liver, improves digestion and has a purifying effect.***

*It helps to protect the intestinal flora and prevents the formation of gallstones because it decongests the liver, so that is why it is recommended for people suffering from liver or gallbladder conditions. It is also rich in fiber. It contains a type of soluble fiber called "inulin" that promotes bowel movement and combat constipation. The "cyarine", another type of fiber, stimulates the secretion of bile, which helps to improve digestion and has a diuretic and cleanser effect. Cyarine does also provide that slight bitter taste of thistles. And finally, the thistle is also beneficial for diabetics as its fiber slows the passage of sugars into the bloodstream.*

### ***A diet rich in folic acid can prevent memory loss in the elderly***

*A Dutch study shows that folic acid (vitamin B9) is abundant in legumes, nuts and fruits and vegetables, and helps to preserve the memory and mental agility. Folic acid (vitamin B9) deteriorates with heat during the cooking process, so if you want to introduce it in your diet in a steady way it is preferable to choose those foods that contain it and can be eaten raw. People who eat little folic acid (vitamin B9) -which is abundant in fresh vegetables, legumes and nuts- do suffer faster cognitive decline with age than those who take folic acid abundantly.*



*This has been demonstrated in a study with 818 healthy Dutch volunteers aged from 50 to 70 years. Half of the volunteers took 800 micrograms of folic acid per day in supplements for three years, while the other half did not take such supplements. They all volunteered to do a series of games to assess their cognitive abilities. Result: after three years, those who had taken the supplements scored higher in memory games and mental agility. Three years following the folic acid treatment led to a mental improvement equivalent to 4.7 years as to rejuvenation in memory tests, and 1.5 years in mental agility tests. By contrast, no differences were observed in tests of verbal fluency or physical agility. It would be premature to recommend folic acid supplements to everybody because of this study, said Jane Durga, director of research at the University of Wageningen. "What we do is to recommend a balanced diet rich in vegetables in order to ensure a sufficient intake of folic acid. It is likely that these benefits are not restricted to those people over 50 years who have participated in our study, but may also benefit younger people."*

*Previous research studies have shown that folic acid has a positive effect on blood circulation, and that the brain shows a loss of mental agility when this blood circulation is bad. Therefore, the first hypothesis is that folic acid protects the brain and allows a good blood flow.*

### ***Red wine, tannins and good health***

***The concern for a healthier diet and a healthy lifestyle is also taken into account in the wine culture. Today we know that the tannins contained in red wines, -when the consumption is moderate- clean up our arteries, and help to prevent cardiovascular disease. Recent studies have also shown that resveratrol,***

***a substance found in the skin of red grapes, may help to slow aging and prevent geriatric conditions like Alzheimer Disease (AD).***



*Several scientific studies have shown that people in those countries who follow the Mediterranean diet, and thus consume wine in moderate amounts, have a lower risk of cardiovascular diseases. This has led the scientific community to study this subject in depth, and compare data from different European countries, while many of the results were, in many cases, both amazing and contradictory, as in the case of France. It was ironic that the French showed high cholesterol levels, on the one*

*hand, (due to the consumption of butter, cream and cheese), but mortality levels resulting from heart problems were low. This fact was called "French paradox". Later, it was found that, unlike the inhabitants of Nordic countries, French citizens took a glass of red wine with their meals. Or so the scientists say*

*The MONICA study has shown that consuming a glass or two of wine reduces the risk of cardiovascular diseases. However, more than 30 grams of alcohol per day causes serious damage to the liver, brain and heart. Subsequently, attention was directed to the non-alcoholic components of red wine and the analysis of tannins. Tannins are natural substances, astringent and bitter, that come from the maceration of grape skins and from the aging of wine in oak barrels. The presence of tannins is felt in the tongue and gums. Fruit tannins from grape skins macerated in must are finer and healthier, while wood tannins are more aggressive.*

### ***The antioxidant power of red wine.***

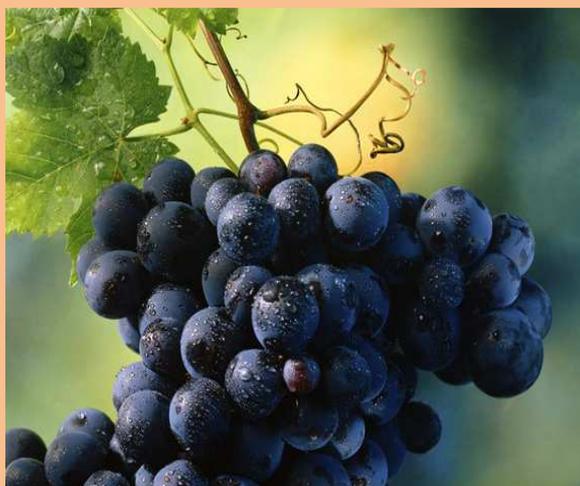
*But the important thing is was the discovery that the skin of red grapes contains a wide range of phenolic compounds. Specifically phenolic acids, flavonoids and resveratrol, all of which have great capacity to protect LDL lipoproteins from oxidation. The "French Paradox" could be explained: a glass of red wine with meals helps to keep blood platelets from clumping together.*

*Free radicals and aging.*

*Today we know that the aging process and the onset of some diseases is due to the effect of "free radicals". That is, certain particles that oxidize our cells. A moderate consumption of wine, along with a Mediterranean diet, increases the levels of omega-3, although an study reveals that not all individuals absorb*

*resveratrol similarly. We can fight free radicals by consuming artificial antioxidants (vitamins C and E, beta-carotene) or by having healthy diet containing high doses of fresh fruit and vegetables, olive oil and red wine consumed in moderation.*

### ***Resveratrol and sirtuins.***



*Another beneficial substance is resveratrol, which is part of pigments and protects grape against fungal attack. Recently, a group of researchers at Harvard University has shown that resveratrol, which is abundant in the skin of red grapes, is able to stimulate, sirtuins, which are enzymes that regulate the cellular aging of all living organisms. Of all the compounds the researchers tested, the one that most*

*stimulated the enzyme was resveratrol, so that a moderate consumption of red wine may help delay aging and prevent geriatric conditions like Alzheimer Disease. The content of resveratrol in wine vary according to the vineyards and production areas, and it is known to be related to the stimulation of defense reactions of the vine in response to a parasitic infection. Most beneficial substances accumulate in the grape skins. Red wine is more beneficial than white wine due to its manufacturing process: the grape must is macerated together with the skin and pips, and it allows that beneficial substances contained in the skin of grapes be transferred to the wine. In addition, black grapes are rich in tannins. Cabernet sauvignon and tempranillo contain more polyphenols than the rest. It's worth remembering that a sunny weather increases the presence of these pigments. Many Spanish wines, which are produced using modern winemaking techniques, have an added advantage: they keep their healthy antioxidant content because they have not been subjected to strong filtering processes as in the case of other wines with a lower quality.*

### ***The benefits of wine***

- 1. Antispasmodic action*
- 2. Activation of bile secretion*
- 3. Antibacterial*
- 4. Antihistamine effect, which attenuates allergic reactions*
- 5. Protection of arterial walls by strengthening the collagen and elastin from which are part*

6. *Wine provides minerals and trace elements:*

- *Magnesium reduces stress*
- *Zinc improves immune defenses*
- *Lithium balances the nervous system*
- *calcium and potassium ensure a proper ionic and electric balance.*

7. *It is recommended in anemia cases as it contains half a milligram of iron; besides, alcohol facilitates the absorption of iron.*

8. *A moderate consumption of red wine with meals alleviates memory loss, which is characteristic of cerebral circulatory insufficiency in the elderly.*

9. *It is active against a fashionable disease, such as anorexia or poor appetite as it stimulates olfactory and gustatory organs.*

10. *These benefits only occur with moderate alcohol doses, never more than 30 grams per day.*

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## ***What is the best temperature to serve wine?***

***Serving wine at an inappropriate temperature will alter the characteristics of wine, so the temperature is a factor to take into account from the beginning.***

### ***Red wines***

*Red wines should be served between 16° and 18° C, so all their features and components can be properly be perceived. An excessive temperature will make alcohol volatility to flood the palate, and so would hinder the perception of its different aromas and bouquet. Furthermore, heat causes the evaporation of alcohol, and it makes that those stronger and less pleasant aromas emerge to the surface. Young reds may be served between 12° and 15° C in order to highlight its freshness and floral nuances; vintages should be served between 16° and 18° C and great vintages at 20° C. Therefore, never serve red*



*wines at room temperature and even less in summer. So, it is convenient to place the bottle in a bucket with ice cubes and serve it at a lower temperature as it will rise a little during the meal.*

### ***White and rosé wines***

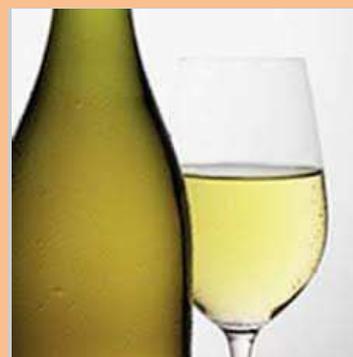


*Young and dry white wines must be served cool but not too cold, that is between 7° and 10° C, and so be able to enjoy its fruit aromas. A higher temperature makes alcohol to stand out excessively, while a low temperature enhances its acidity and masks its peculiarities. And as to sweet white wines, it is advisable to serve them at 6° C, as this temperature highlights its fruitiness and sweet expression. But serve vintage whites between 10° and 12° C, since a lower temperature would ruin the complex oak aromas. Generous white wines (manzanilla and fino wines) should be*

*served between 7 ° and 10 ° C. As to rosé wines, the best temperature is between 6° and 8° C.*

### ***How to get to the ideal temperature***

*This temperature is achieved gradually. Never put the wine in the freezer. As to white, rosé wine or cava, put the bottle in the fridge a few hours before serving it. Once the bottle is on the table, the best option is to keep it fresh is a bucket with water and ice. Below 5° C, flavors cannot be perceived in the same way.*



## ***Decanting wine***

*Decanting wine helps to remove the sediments or dregs contained in it. However, decanting leads to an intense oxygenation. The dictionary of the Spanish Real*



*Academia defines "decantar" (decanting) as "to gently tip a vessel over another to drop a liquid without letting the sediments be discharged." It follows that decanting serves to remove sediments or dregs found in wine. However, an intense oxygenation takes place during decantation, and it is at this point when controversy arises. The maturation and rest time of wines in a*

*bottle, especially red wines, produces sediments derived from, among other sources. It is recommendable to decant the wine -to pour it into a decanter- to eliminate such sediments; although it is also recommendable to keep the bottle in an upright position for at least 24 hours before it is served.*

*As decantation involves an intense oxygenation, doubts are unavoidable, because the transference of wine from one container to another puts the wine in contact with a large quantity of oxygen, which is well above that of a mere opening and serving in glasses, as it leads to a more rapid oxidation. This oxidation has a clear impact on the aroma and taste of any wine, so deciding when to decant and / or oxygenate a wine will depend largely on our experience, our taste, and the speed with which we'll consume the wine.*

*Experience suggests that decantation is advisable for reserve wines or laid-down wines, with over five years in bottle, where wines keep both with a high color intensity and a good tannic structure. To decant the wine half hour before the meal is enough time for a good oxygenation, and very few wines improve with longer times than that.*

*For soft and light red wines, with over 15 years in bottle, their pouring into a jug or a decanter, with its subsequent oxygenation, can result in the loss of much of its aromas. In such cases a good oxygenation is achieved serving the wine in a balloon glass with a diameter of 10-12 centimeters.*

## ***Nuts: source of health***

***The Mediterranean cuisine makes a wide use of nuts, and foods rich in proteins, fiber, minerals, vitamins and highly-unsaturated fats, all of which makes these dishes very cardio-protective. Numerous scientific studies support its beneficial effects on health.***



*Nuts have been incorporated into the diet of any person performing intellectual or physical tasks that require high levels of performance. Half of its contents are healthy fats that help reduce bad cholesterol and increase good cholesterol. They are healthy fats because they are unsaturated (mono and polyunsaturated), oleic and linoleic fatty acids, and omega-3 fatty acids. These fats are involved in controlling*

*the levels of triglycerides and cholesterol in the body, and this makes them a cardio-protective food. It is estimated that the regular consumption of a handful of nuts reduces the cardiovascular risk. On the other hand, they contain antioxidants (vitamins E and C among them) that are essential to fight the action of free radicals, which are responsible for degenerative diseases and aging.*

*The presence of such substances, which are so effective to fight free radicals, gives nuts an added heart-healthy effect that is mainly due to the capacity of tocopherols to protect low-density lipoproteins (LDL) against the action of free radicals.*

*Also, nuts are indicated, thanks to its content of B vitamins, to relieve fatigue, stress or PMS. Hazelnuts and walnuts show an increased folic acid content, followed by pine nuts, pistachios and almonds; it should be noted that the daily requirement of folic acid, for an adult, are around 400 µg.*

*Nuts are traditional food stuffs of the Mediterranean diet that are characterized by a high content of both energy and fiber, they're low in saturated fat and high in unsaturated fat; polyunsaturated fats are primarily found in walnuts and pine nuts, and monounsaturated fats in almonds, hazelnuts and pistachios. Nuts are also a source of vegetable proteins, antioxidants, vitamins and many bioactive substances, such as the flavonoids. In addition, its mineral content is higher than in other foods as they provide magnesium, phosphorus, potassium, calcium, iron and trace elements, such as zinc and selenium.*

## ***Hazelnuts and almonds***

*They are rich in vitamin E and fiber, provide calcium, magnesium and potassium, so they are recommended to prevent some diseases, such as osteoporosis.*



*Hazelnuts and almonds are nuts rich in monounsaturated fatty acids. Oleic acid is about 70% of the fatty acids present in almonds and hazelnuts.*

*Its antioxidant content is significant, hence almonds show a concentration of vitamin E (or tocopherol) higher than 20 mg/100g, and the concentration of this vitamin in hazelnuts is above 40 mg/100g.*

*As for B vitamins, hazelnuts and walnuts show an increased folic acid content, and are followed by pine nuts, pistachios and almonds; it should be noted that the daily requirement of folic acid for an adult is about 400 µg.*

*They also provide minerals; they're rich in calcium, magnesium, potassium, iron and phosphorus. Phosphorus is highly recommended for those who need an update of memory and develop a one-hundred-percent intellectual capacity.*

## ***Walnuts***

*Walnuts is the foodstuff most studied by scientists, who have concluded that a moderate consumption of walnuts helps to protect us from heart diseases by reducing total levels of cholesterol. Walnuts are rich in polyunsaturated fats, especially omega 3 type, whereas oleic acid (monounsaturated fat) accounts for only nearly 15% of such fats.*

## ***CALORIE FOOD TABLES: Vegetables, vegetables and legumes.***

***Do you want to know how many calories you eat, and what are the key nutrients (proteins, lipids and carbohydrates) contained in what you eat? This table may be of interest for you.***

*Thanks to this table you can prepare more balanced and tasty meals, keep your figure and decide what foods suit you the best.*

*As to this calorie chart should be aware that calories refer to 100 grams of the edible portion of the food. The waste-shells, skins, etc. are not taken into account. Proteins, lipids and carbohydrates are expressed in grams.*

<i>VERDURAS/HORTALIZAS</i>	<i>Calories</i>	<i>Proteins</i>	<i>Lipids</i>	<i>Carbo- hydrates</i>
<i>Garlic</i>	<i>124</i>	<i>6</i>	<i>0,1</i>	<i>26,3</i>
<i>Artichokes</i>	<i>17</i>	<i>1,4</i>	<i>0,2</i>	<i>2,3</i>
<i>Celery</i>	<i>22</i>	<i>2,3</i>	<i>0,2</i>	<i>2,4</i>
<i>Eggplant</i>	<i>16</i>	<i>1,1</i>	<i>0,1</i>	<i>2,6</i>
<i>Watercress</i>	<i>13,2</i>	<i>2,4</i>	<i>0,2</i>	<i>1,6</i>
<i>Broccoli</i>	<i>31</i>	<i>3,3</i>	<i>0,2</i>	<i>4</i>
<i>Zucchini</i>	<i>12</i>	<i>1,3</i>	<i>0,1</i>	<i>1,4</i>
<i>Pumpkin</i>	<i>18</i>	<i>1,1</i>	<i>0,1</i>	<i>3,5</i>

<i>Thistle</i>	10	0,6	0,1	1,7
<i>Onion</i>	24	1	0	5,2
<i>Red cabbage</i>	20	1,9	0,2	3,4
<i>Brussels sprout</i>	31	4,2	0,5	4,3
<i>Cauliflower</i>	25	3,2	0,2	2,7
<i>Asparagus</i>	27	3,6	0,2	2,9
<i>Spinach</i>	31	3,4	0,7	3
<i>Fresh peas</i>	70	7	0,2	10,6
<i>Fresh broad beans</i>	52	4,1	0,8	7,7
<i>Fennel</i>	16	0,5	0,3	3,2
<i>Lettuce</i>	19	1,8	0,4	2,2
<i>Turnip</i>	16	1	0	3,3
<i>Potatoes</i>	80	2,1	1	18
<i>Cucumber</i>	10,4	0,7	0,1	2
<i>Leek</i>	26	2,1	0,1	6
<i>Beet</i>	42	1,5	0,1	8,2

<i>Cabbage</i>	<i>19</i>	<i>2,1</i>	<i>0,1</i>	<i>2,5</i>
<i>Mushroom</i>		<i>4,6</i>	<i>0,4</i>	<i>5,2</i>
<i>Tomato</i>	<i>16</i>	<i>1</i>	<i>0,2</i>	<i>2,9</i>
<i>Truffle</i>	<i>30</i>	<i>6</i>	<i>0,5</i>	<i>0,7</i>
<i>Carrot</i>	<i>37</i>	<i>1</i>	<i>0,2</i>	<i>7,8</i>
<i>LEGUMES</i>	<i>Calories</i>	<i>Proteins</i>	<i>Lipids</i>	<i>Carbo- hydrates</i>
<i>Beans (dried beans)</i>	<i>316</i>	<i>23</i>	<i>1,3</i>	<i>61</i>
<i>Chickpeas</i>	<i>338</i>	<i>21,8</i>	<i>4,9</i>	<i>54,3</i>
<i>Dried peas</i>	<i>304</i>	<i>21,7</i>	<i>2</i>	<i>53,6</i>
<i>Dried broad beans</i>	<i>304</i>	<i>27</i>	<i>2,4</i>	<i>46,5</i>
<i>Lentils</i>	<i>325</i>	<i>25</i>	<i>2,5</i>	<i>54</i>

## ***Olive oil can reduce obesity, diabetes and hypertension.***

***Numerous epidemiological and clinical studies say that a diet rich in olive oil may reduce the incidence of obesity, diabetes and hypertension. This was emphasized by Dr. Federico J. C-Soriguer Escofet, who chaired the symposium on "Olive oil, obesity, metabolic syndrome and diabetes".***



*The organizers of the meeting declared that the prevalence of these diseases is increasing year by year to become a global epidemic problem. "And although there is -added C-Soriguer Escofet- a genetic component in it, the most important factor of this high prevalence is to be found in changes in lifestyle, especially those concerning diet and physical inactivity."*

*According to specialists of the Endocrinology and Nutrition department of the University Hospital Carlos Haya, Malaga, and with regard to changes in the diet, the most important factor has probably been the increase of fats, especially saturated fats, as well as the imbalance detected in polyunsaturated fats; that is, on the one hand, higher fatty acids, n-6 (from seeds), and secondly, a reduction of the n-3 fatty acids, from some vegetables and fish.*

*Over 230 healthy and beneficial compounds have been isolated from olive oil. Olive oil can reduce obesity, diabetes and hypertension, and its consumption provides protection against cardiovascular diseases. Virgin olive oil is effective against diseases associated with aging, as well as those related to cholesterol.*

*"In this context, the discovery of the biological value of the third group of fats - monounsaturated fats- such as olive oil, is addressing the growing interest of the scientific community," In fact, numerous experimental, epidemiological and clinical studies have confirmed that a diet rich in olive oil, such as the Mediterranean, may decrease the incidence of some diseases, as for example, obesity, diabetes mellitus type 2, or hypertension and reduce peripheral resistance to the insulin action.*



*The key is that a diet rich in olive oil may reduce an inflammatory response, which is now thought to be part of the origin of these diseases and it therefore lowers the incidence of obesity and high blood pressure,*

*while at the same time improves postprandial hyperlipidemia, and any excessive levels of in blood after the ingestion of a nutrient".*

*Currently, five major lines of research, related to these pathologies, are on course: olive oil and inflammation, olive oil and postprandial metabolism (triglyceride concentration in blood after meals), olive oil and peripheral resistance to the action of the insulin; olive oil and expression of genes related to the metabolism of carbohydrates and fats; and finally, the study of the role of minor components of virgin olive oil on intermediary metabolism.*

*Virgin olive oil is the common denominator in all the diets of the Mediterranean countries. It should not, however, be regarded as a medication but as an ingredient that is part of that diet. The Mediterranean diet cannot be conceived without the olive oil, although moderation in food and drink should be taken as the most important values of the Mediterranean diet.*

***Enjoying good health is a matter of genes. The Mediterranean diet can, however, help maintain and improve our health. Today, this diet has emerged as a dietary pattern thanks to its positive effects on health in general, and specifically for its role in preventing cardiovascular diseases, cancer and diabetes.***

*In the sixties, the resident population in Crete, southern Greece and in southern Italy areas had one of the highest life expectancy rates in the world, and it in spite of the limitations of the medical services. Myocardial infarction is almost unknown and cancer is barely heard of. This fact has been known throughout the world thanks to the Seven Countries Study, which perhaps was the major research study on the relationship between Mediterranean Diet and Heart Diseases, and which showed that diets, lifestyle and environment (weather and environmental factors) are of great health significance.*



*Following this study, the Mediterranean diet has emerged as a dietary pattern. But we must not forget that the people of Crete and Italy had a lifestyle that was also responsible for providing their daily ration health for body and mind. To go back to the sixties, (date on which this study was conducted), to that world of values and needs is impossible. But there is no doubt*

*that our lifestyle and the way we confront what happens around us may affect our body. Any diet that may help prevent cardiovascular diseases is also useful to protect our health in general.*

*What the following foodstuffs have in common: Nuts in moderation, virgin olive oil for cooking and dressing, oily fish, half a glass of red wine, fruits, vegetables, grains and legumes? They are, in general, beneficial for our cardiovascular health as they act on cholesterol, reducing LDL cholesterol (the bad) and raising HDL (the good), which helps keep arteries healthy.*

*Oil, nuts and oily fish contain unsaturated fats (mono and polyunsaturated fats), which are healthy fats.*

*Olive oil is, like nuts, rich in monounsaturated fats and has clear benefits for cholesterol; oily fish is rich in polyunsaturated fat omega-3, which reduces the tendency of blood to clot, helps control blood pressure and prevents arrhythmias.*

### ***Vegetables, fruits, vegetables, legumes and cancer.***

*Diets rich in cereals, fruits, vegetables, legumes, vegetables and reduce the risk of cancer. On this point, there is a general consensus among the scientific community, although no specific plant molecules that protect us cancers are currently identified. It is therefore recommended to frequently eat different veggies and fruits. To avoid always taking the same fruit guarantees a greater variety of minerals, vitamins and antioxidants.*

*Folic acid is a component that has been identified as a protector against cancer, and it has been shown that people who do not have enough folic acid are at higher risk for breast, colon and rectum cancer, and especially if the intake of alcohol is high.*

### ***Saturated fat and cancer***

*There is also no doubt about the effects on our health of some fats, and saturated fats found in red meats, such as beef and processed meats, as in the case of frankfurters and ham, since they have a clearer relationship with some cancers. It is not recommended to remove these meats from the diet, because they provide proteins, iron and other important nutrients, although it is better a non-daily consumption.*

*Research has shown that if saturated fats can have an impact on breast cancer, it is olive oil, and specifically one of its components, that is, oleic acid, the factor that helps to prevent it. There is a scientific study, led by Javier Menendez, a molecular biologist at the Research Institute for Health Chicago Northwestern,*

*which has confirmed that oleic acid intake reduces significantly one of the oncogenes associated with more aggressive tumors.*

### ***Risk of diabetes***

*Foods associated to the Mediterranean diet reduce cholesterol levels, blood pressure and thus the risk of diabetes. The consumption of minimally processed grains, fruits, and vegetables, which are high in fiber, and the use of monounsaturated fats (olive oil), are also useful for improving blood glucose levels, as well as the lipid profile of diabetics.*

### ***Diet and physical activity***

*To be physically active is as important as a healthy eating style. It needs not be very intense, but frequent, and a 30-minute walk at a good pace is enough.*



*Exercise not only reduces weight, but also lowers bad cholesterol (LDL) and increases the good one (HDL). It also puts the level of triglycerides in blood (which are harmful) under control. Promotes insulin activity and reduces the risk of diabetes and blood pressure.*

### ***The Mediterranean diet in Spain***

*The Mediterranean Diet is in a time of re-conquest. Spain employs more than 60% of its arable land to typical Mediterranean products; around half of the exports of food products are products related to the Mediterranean diet, and, in terms of consumption, the Ministry of Agriculture, Fisheries and Food certifies an increase in popularity of fruit, vegetables, fish and olive oil.*



*Contrary to the majority belief that indicates a gradual disappearance of the traditional influence of this diet in the Mediterranean basin, the Food Consumption Panel has detected, in the last seven years, a steady increase in the consumption of products considered as the main components of the Mediterranean Diet.*

## ***Split views***

*There is some split views as to whether Spaniards do faithfully follow the Mediterranean diet or have abandoned this traditional diet towards a less healthy habits.*

## ***The new consumer habits.***

*The new systems of domestic organization, the importance of working lunches and increased revenues dedicated to leisure are just some of the factors that have changed our eating habits, although keeping the old ways. Today, the strategy of*



*most consumers is to purchase products associated with the traditional Mediterranean diet; products which, on the other hand, are processed or semi-processed. The success of vegetables range IV and V is a good example of it: these products are vacuum packed and can last between two and five days, but have all the characteristics of fresh foodstuffs and are ready to be cooked or*

*eaten directly. The tendency of Spaniards to consume fruit is confirmed by the Ministry of Agriculture. In 2003, the consumption of fresh fruit exceeded 100 kg per person. The consumption of fresh vegetables also had a considerable increase with regard to previous years.*

## ***The recovery of the concept of a healthy diet.***

*According to the results of a study conducted by Taylor Nelson Sofres, food crises have, in recent years, reinforced the concept of "a healthy diet": the study reports that 71% of respondents look for products with less fat; and more than 50% affirm they are willing to pay more for products with a higher quality. Recent studies on eating habits seem to similarly conclude that there is indeed a tendency to eat more healthfully -in special those products belonging to the Mediterranean Diet- but without changing the routines around the nutritional fact and which have to do with the purchase, preparation or consumption.*



*These routines are in contact with modernity and our lifestyle: shopping in spaced periods of time, quick and easy preparation and a solitary consumption in many cases.*

***In the 1960's, the Mediterranean diet was the way we feed ourselves. Now this diet has been declared Intangible Cultural Heritage of Humanity. But there are indications that Spain, like other Mediterranean countries, is moving away from this model of life and dietary pattern, so we must safeguard this healthy heritage.***

*This transnational nomination has been prepared and submitted jointly by Spain, Greece, Italy and Morocco, and was technically coordinated by the Mediterranean Diet Foundation in order to preserve a cultural and gastronomic heritage that defines and identifies the Mediterranean territories for centuries. "*

*Aside from the healthy and scientifically contrasted benefits of the Mediterranean Diet, it is also a lifestyle that balances people with their environment, both with regard to Nature and their social and cultural world. It is precisely in this area that the Mediterranean diet becomes a legacy. And a legacy we must pass on to our descendants, although nothing can be passed on if it has not been experienced live, or taken as one's own.*

### ***We live as we eat***

*It is said that we are what we eat. But to be precise, we should say that we live as we eat. Our way of life, our work, our family and social relationships determine our daily menus. When the food industry appeals to the concept of cookery is because there is something wrong somewhere and it is necessary to re-establish the common thread of healthy cuisine that is part of our culture and tradition, and which is characterized by a specific and well-organized meal timetable. If we add all this to the advertising pressure from part of the food industry, which tries to lure us into eating a nice-and-tasty looking food that isn't too healthy but can be cooked very quickly, then the problem worsens. It was in the 1950s when Ancel Keys coined the sentence on the Mediterranean diet, "what doesn't kill you makes you fatter". This is precisely a deviation from a healthy diet; so a distancing from the Mediterranean diet will lead to more cardiovascular disease, more diabetes, and more hypertension.*



*Following this study, the Mediterranean diet has emerged as a dietary pattern worldwide, and the reason for it has to do with a diet based on olive oil, fruits and*

*vegetables, cereals -in the form of bread or pasta-, oily fish, lamb and poultry, as well as and some wine with meals. The extra virgin olive oil is certainly the ingredient that forms the Mediterranean concept, and there are only olive trees where the Mediterranean climate exists.*

*Foods rich in monounsaturated fats, whose main representative is the classic virgin olive oil, are more beneficial than other vegetable oils. There are no other fats with the healthy benefits that the virgin olive oil provides. It helps to control cholesterol levels, arteriosclerosis and blood pressure, all of which results in a lower risk of cardiovascular diseases and its use for the treatment and prevention of some types of diabetes and for protecting our body against certain types of cancer.*

*There is no use in stuffing oneself with a foodstuff because somebody says it is very healthy, while neglecting the others. Diets are a group of foodstuffs and each foodstuff has its own place. The Mediterranean diet was already the way we fed ourselves when more than 50 years back nobody would think about calories or how to allocate protein, fat and carbohydrate percentages in a meal. Now, when it has been declared Intangible Cultural Heritage of Humanity, it seems to us an abstract concept. The challenge is to re-internalize our way of life and feeding habits, even though we have to relearn how to eat again.*