

Culture and Mediterranean Diet

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Abstract

We discuss different aspects of the Mediterranean diet, including the historical, anthropological and cultural. The different foods that are characteristic of the Mediterranean diet are used to create all kinds of recipes, which are valued in gastronomic terms and are also highly nutritional. Bread, wine and extra virgin olive oil have been symbols of civilisation and prosperity for the peoples of the Mediterranean for thousands of years.

The key elements of the Mediterranean diet are variety, moderation and the predominance of vegetables over food sourced from animals. These are complemented by a philosophy of life that values personal relationships, the pursuit of happiness and physical activity. A colourful cuisine has developed around the Mediterranean, which is rich and aromatic and which might be said to live in harmony with nature. The Mediterranean diet is about sharing, enjoying conversation around the table, and relaxing after the meal with a siesta. With the globalisation of food, the chronobiological rhythm of food intake has become skewed, and food industrialisation has led to the homogenisation of eating behaviours.

The great chefs of today are artists, bold and dazzlingly creative, masters of harmony and subtlety, arousing hedonistic pleasures with this new form of artistic expression.

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Introduction

The key to the intellectual, ethical and aesthetic harmony of human existence is the art of combining what is true and penultimate and what is final and uncertain for Man' Laín Entralgo¹⁸

In 2010, UNESCO designated the Mediterranean diet as part of the intangible cultural heritage of humanity. This ancient cultural heritage, which has evolved throughout history and is probably one of the healthier, more prudent and balanced dietary models currently in existence, is now, in the 21st century, in danger of being lost. The history of food is the crux of the history of society, and combines culture and nature, and both the spirit and the body^{1,2}. The Mediterranean diet has also been linked to a lower risk of depression and better cognitive function; there is also an inverse relationship between fruit and vegetable consumption and perceived stress and depressive symptoms²⁶⁻²⁹.

Bread, wine and oil have shaped the identity of the Mediterranean peoples as symbols of civilization and prosperity inherited over thousands of years. We cannot talk about the Mediterranean diet without considering three perspectives: the historical, the anthropological, and the cultural. The traditional Mediterranean diet has a rich cultural heritage born of the geographical, historical, anthropological and cultural confluence of Europe, Asia and Africa. The Mediterranean diet is not a new diet: at its deepest roots, food in this region was seasonal, the climate dictated what was produced, and the food was consumed at parties and gatherings. Thus, its geographical centre and the evolution from its origins (in the Middle East and the people of biblical times) embrace the history of what we know today as western civilisation³. The traditional diet of the Mediterranean countries has provided a sense of belonging and identity, characterised by high consumption of cereals, fruit, greens and vegetables, legumes, nuts and, above all, olive oil. These are combined with moderate consumption of fish, eggs and dairy products, preferably yogurt or cheese, a lower consumption of meat and animal fats, and a moderate consumption of alcohol, in particular wine at meals. The key elements of this diet are variety, moderation, the predominance of vegetable over animal foods, and a philosophy of life centred on personal relationships, enjoyment and an active life. This

is an ideal that has been deteriorating across the entire social spectrum. Moreover, without culture there are no people, and neither the palate nor the stomach can function extra-culturally⁴. Man's response to everything related to food behaviour is loaded with symbolism as well as psychophysiological-sociocultural variables.

Therefore, any culture reveals traits of human specificity, and thus Mediterranean proticulture was the seed of creativity of Mediterranean culture and diet.

From the anthropological point of view, Man's dietary behaviour has been, and will be, influenced by geographical, climatic, socio-economic, and religious factors which determine the choice of food. These foods arouse pleasure when they are observed, remembered, tasted and eaten in their prime. Therefore, feeling sensations implies the knowledge of a sensibility. And thanks to the combination of olfactory-gustatory sensations, the internal quality of the food is perceived, and the different combinations of foods characteristic of the Mediterranean diet give rise to a variety of recipes of high gastronomic and nutritional value. Thanks to the different ways that the food is prepared, and the habits and frequency of consumption, this millenarian alimentary model is recognised for its important health benefits. While the basis of human behaviour is the search for more efficient and pleasurable forms of food consumption, it is also true that from another perspective we are immersed in a nutritional environment that differs from that for which our genetic constitution was selected⁵.

Balzo et al. (2011) comments that it would be better to refer to the Mediterranean lifestyle, rather than the Mediterranean diet, and they also, from a holistic point of view, recommend the creation of an index in which diet is an important factor for improving morbidity and mortality in the population⁶.

Eating Habits in the Mediterranean Diet

People's health and well-being is conditioned by the food they eat, and gastronomy is therefore essential. Tradition is maintained by gathering around a table, which creates an intimate atmosphere and a plethora of sensations, promotes and maintains socio-cultural customs, establishes personal and compartmental ties, promotes health and the enjoyment of a good meal. Eating is an existential act, because, when a person looks

at the plate before them, all their senses are activated, and what they perceive triggers memories, underpinned by the gastronomic history of the Mediterranean region.

Food should not be valued exclusively for its chemical and biological properties, but also as a cultural form, which fills it with sensations. Man is humanised thanks to the act of cooking food and becomes a gourmet animal par excellence, as noted by Cruz (2011)⁷.

In the Mediterranean diet, for example, nuts and fruits (figs, dates, etc.) are considered the first foods consumed by humans, and play an important role in energy-nutritional, therapeutic, aphrodisiac, etc., terms.⁸ Other important foods include bread, which is one of the main pillars of the Mediterranean diet, along with olive oil, with its somewhat bitter and spicy taste, which varies depending on the type of fruit, and the population of the Mediterranean countries has benefited throughout the history of its components⁹. Water, an essential, is served at the table, as well as wine, which has been a traditional part of the Mediterranean diet for centuries. Although wine is optional, moderate consumption with food is recommended. Traditionally wine has been drunk mainly in southern Europe, although in Spain its consumption has been declining over recent years in favour of other alcoholic beverages, which may be related to a departure from the patterns of the traditional Mediterranean diet.

Singh et al., 2014 observed that a higher adherence to diet is related to a lowered risk for

cognitive impairment, the neuroprotective effect is attributed to the: vascular properties and the reducing capacity of inflammation and oxidative stress; contribution of vegetables, alcohol, fish and the predominance of MUFA over saturated fatty acids; and cardiovascular protection, which in turn decreases the risks for comorbidities such as hypertension³⁰. Romagnolo & Selmin, 2017 and Figueiredo-Gonzalez et al. 2018, mention the preventive role against cognitive decline obtained by the content of phenols in extra virgin olive oil³¹⁻³².

In the widely accepted definition of the Mediterranean diet (Table 1), the following nine components are included^{20,22,23}.

1. High monounsaturated to saturated lipid ratio (derived from high olive oil consumption).
2. Moderate ethanol consumption (mainly as wine).
3. High consumption of legumes.
4. High consumption of cereals (mainly unrefined cereals and bread).
5. High consumption of fruit.
6. High consumption of vegetables.
7. Low consumption of meat and meat products.
8. Moderate consumption of milk and dairy products.
9. High consumption of fish and fish products.

A colourful cuisine, rich in aromas, has developed throughout the Mediterranean, imbued with

Table 1. Essential dietary indicators in the Mediterranean diet²¹

Indicator	Associated health benefit	Differential features in Mediterranean diet
MUPA/SFA ratio	Inverse correlation with cardiovascular disease and total mortality	High ratio derived from consumption of olive oil (high) and animal fat (moderate)
Dietary fibre intake (as total indigestible fraction)	Prevention of coronary heart disease and colon cancer	High consumption of fresh fruit and vegetables (fibre with associated bioactive compounds)
Antioxidant capacity of the whole diet	High serum antioxidant capacity Prevention of oxidative damage	High variety of antioxidants from plant foods and beverages
Phytosterols intake	Lower total and LDL-cholesterol	High intake from vegetable oils

a sense of living in harmony with nature¹⁰. Flavoursome foods can be healthy, and, within the Mediterranean basin, diet is part of a cultural evolution that has generated myriad small variations within it, explained by the differences between cultures and their eating habits. According to Braudel¹¹: 'the type of food attests to the social rank, civilisation or culture that surrounds it, based on the perfect symbiosis between landscape, agriculture and culture that takes place in the Mediterranean'. All societies, and therefore everyone, have a type of food, 'a food nourishes, has an emotional tone and carries symbolic meanings; it is difficult to forget the foods we have grown up with and the type of foods served in the social and family sphere'¹². In addition, globalisation has caused the socio-cultural-food habits of Europeans to become uniform, abandoning the traditional products of the Mediterranean.

Good food is fundamental to social and family relations. The choice of foods that are part of a diet implies a complex mechanism of interaction between biological-social-cultural processes, including food preferences and aversions, values, symbolism and traditions, together with the organoleptic characteristics of food, which also play an important role¹³.

Without neglecting the benefits of the Mediterranean diet, it is necessary to deepen our understanding of the different products formed during the culinary process through the Maillard reaction, the effects of which are not yet well known, as Delgado-Andrade et al. (2010) point out. Noting that, as diets progressively contain fewer carbohydrates and more protein, the Maillard reaction is affected, producing compounds such as acrylamide, hydroxymethylfurfural, furfural and furosin¹⁴, products that will vary depending on the cooking method or the type of commercialisation in the market. They suggest that ingredients and cooking methods should be carefully selected in order to reduce the intake of potentially harmful compounds produced by the Maillard reaction.¹⁴

Eating habits are both symbols in themselves and incorporate symbols; they are the permanent determinations that Man gives himself to be nourished, precisely because he does not have a strong, basic instinct that connects him to a determined ecological

sphere¹⁵. These habits were originally elective, and, in that they formed and cemented the open nature of Man, they later clung tenaciously to community life and shaped the food culture. The scale of gastronomic values of a people, a region, a social class or an individual depends on a set of sociocultural reasons as well as natural and economic reasons⁵.

In sum, it is possible to affirm that everything related to food is particularly aggregative and integrative, and in addition the old distinctions between spirit and body, between matter and intellect, vanish before the exigency of understanding the complexity of the alimentary behaviours of Man.^{16,18} Eating habits are based on collective patterns, embodied in the individual as customs, in which both the ancient cultural tradition and current worldview are reconfirmed¹⁵. The act of eating, as a normal phenomenon of human life, is vital for a healthy body, and for the modern diner the body is a mere object, becoming a clear expression of the consumer society¹⁵.

The Mediterranean Diet and Gastronomy Today

The problem presented to the senses of the 21st-century diner is a warning that only sensory experiences authorised by the industry are available, thus making the pleasure of taste an industrial element comparable to other technical products¹⁵. The act of eating around the table is increasingly losing its meaning, as it is replaced by the automatism of eating for eating's sake and at any time. This is clearly the result of the extremely rapid social development of the last century. The survival of traditional cuisine, as culinary and cultural heritage, seems to be compromised by the invasion of standardised foods, which is already having repercussions on the health and the cultural legacy of the Mediterranean countries.

If anything distinguishes us from animals, it is the social act of eating and sharing food with others. Accepting or refusing a food also depends on the recollection of previous experiences and on cultural and social information. Palatability and the pursuit of pleasure also play a central role⁹. As Cruz (2002)¹⁵ notes, a person who usually eats alone has a poorer appetite and sense of taste; eating in company is the phenomenon through which Man transcends his animality. It is desirable and therapeutically advisable for

people not to eat alone, because the social act of eating saves Man from his animal or natural egoism.

The Mediterranean diet means sharing and enjoying even the most modest meal. It implies good dietary behaviour, in which food is shared at the table, and is followed by a rest in the form of a nap. Today, this diet is being affected by the quiet abandonment of traditional eating habits and the globalisation of taste, which has led to the emergence of new pathologies related to these cultural and environmental changes. All eating habits are the expression of a culinary language, and food only acquires the fullness of its human meaning when it is shared with others¹⁵. The gastronomic qualities of the Mediterranean diet make it fully compatible with the enjoyment of food and the pleasures of eating. The huge changes that have taken place over recent years have led to the deterioration of some of the qualitative aspects of this diet. Factors such as urbanisation, economic development, greater availability of food from other cultures, etc., are modifying the characteristics of the Mediterranean diet, reducing the differences between the countries of northern and southern Europe. Those in the north are trying to imitate our diet in order to reduce the incidence of disease, while the countries of the Mediterranean area are westernising the diet¹⁷.

The gourmet in the kitchen cannot be indifferent to what is happening. He or she is responsible for preserving their heritage, which is more than simply a diet and should be considered a philosophy of life. It could be said that it is thanks to gastronomy that the story of 'food awareness', of the body and of taste, has begun, and as the investigation develops, it is extending into areas such as the evolution of representations, of perception and even of sensuality⁶. The new cuisine, informed by the ancestral substrate, is creative, colourful, aromatic and sensory, without distancing itself from the traditional and healthy Mediterranean diet, as demonstrated in the various recipes that are presented.

Gastronomic pleasures are psycho-structurally complex, stimulated initially by variations in taste, smell, texture and temperature¹⁵.

Nowadays, we look for food and drink with ingredients, or a modified composition, that serves to improve 'humour or mood', or, ultimately, to bring

pleasure and happiness. But the only foods that can produce happiness and have a significant and positive impact on human nutrition⁹ are those that have been proved safe over generations, those with emotional importance, that are enjoyed within families or groups, that have social information about how to cook and consume them, how to share them, and which ensure the survival of the species.

Man produces gastronomic cuisine when trying to feed and nourish himself. As cuisine is a cultural phenomenon, gastronomy is presented as a form of human artistic and cultural expression, and also an essential element for the promotion of tourism and a source of economic and cultural wealth¹⁵.

We are living in a new era. Today, Spanish gastronomy is beautiful, provocative, and evokes potent feelings and emotions. Among the techniques being used in innovative cuisine are adding emulsifiers with foaming effects to make products airy; using carrageenan, alginates and gums to make alcoholic gels and spheres, and for stabilising suspensions; using liquid nitrogen, which allows for temperature contrasts in the same food item, in order, for example, to create oil powder, frozen foams, tomato popcorn, etc.¹⁹ Thanks to the magical combinations and presentations, it makes the ingredients seem beneficial for general health. Moreover, for this reason gastronomy can and should become a vector for the promotion of healthy eating habits for everyone – children, adolescents, students, adults and seniors alike. In gastronomy, harmony is valued, monotony eschewed, and food is presented playfully, like a picture that delights with its contrasting tastes, smells, textures and temperature¹⁵.

The expansion of the Western diet is spreading worldwide and results with promoting intake of total fats (particularly saturated) in the daily intake of people who brace it. This is accompanied by the higher consumption of refined carbohydrates and the lower intake of vegetables, causing diet to become a risk factor for obesity, cardiovascular diseases, cancer, diabetes, and neurodegenerative disorders³³. With the globalisation of food, the chronobiological rhythm of ingestion is decentralised, and the industrialisation of nutrition has created homogenous eating habits; this could be considered the negation of the pre-existing cuisine,

which is depersonalised and loses its cultural identity¹⁵.

Gastronomy studies the relationship between culture and food. Historical gastronomy studies the fusion of different cuisines that have taken place over the years¹⁹. In the oldest gastronomy, the focal point was the stove, and servings were large. In today's gastronomy, however, portions are small and the food is almost ethereal. Contemporary cuisine is a mixture of ideas, research and techniques, which triggers the creative culinary process in which smells, tastes, textures, sight, sound come into play. In other words, sensory excitement is essential to make it possible.

Gastronomy must combine psychological-instinctive, scientific-technical and cultural-social acts in which the culinary art is inscribed¹². We must ask ourselves: is it possible to restore and maintain the Mediterranean diet in the 21st century? Our chefs can provide the answer, magically producing new combinations from the crucible of the stove. The great chefs of today are artists, bold and daring creators, masters of harmony and subtlety, purveyors of pleasure, and gastronomy is considered a new form of artistic expression. It is a cuisine that adds a new magic, creating fantasies from the dishes of yesteryear, replacing sobriety with an unparalleled extravagance, and infusing them with extraordinary beauty, flavours and smells. The new culinary techniques are permeating throughout society, and have led to the evolution of cuisine thanks, among other factors, to techniques for making appetising creations. Thus, gelling agents, thickeners and emulsifiers are used to change textures, which allows culinary production to be administered; for example, in hospitals with patients that require a special diet, etc.¹⁹

Thanks to globalisation, products and foods from remote places are now found in all homes and restaurants. In the future, food will be seen as a means of providing health, energy and quality of life. 'Signature menus' may be said to symbolise quality, with balanced and appetizing dishes that incorporate ingredients and haute cuisine procedures, in other words health à la carte, presenting recipes that display the perfect pairing of food and nutrition.¹⁹

Food as an Axiological Quality of a Culture²⁴

It is essential to dedicate a few lines to the

values that constitute the anthropological, social and cultural axes of Mediterranean culture and the people that form it. From this perspective, Man is a person, as well as a subject, and is defined by the values that guide his behaviour, more than by his biological, psychological-affective or social needs. Thus, people transcend many of their most basic needs, guiding their lives by dreams, hopes and aspirations that reflect values such as personal or collective development, commitment, love for one's neighbour, wisdom, patriotism, honour, fame, recognition or simply, generosity as a gift and self-representation in the world.

When viewed in this way, we could define gastronomy as the science or doctrine that explains the way Man is related to the world through food. In effect, the act of eating does not end when the 'food thing' is swallowed, but, through the means of feeding oneself, Man expresses, according to existentialist theories, his being in himself from being for himself and for others. When Man eats, he chooses one food over another, assigning value through his preferences to a certain food, to a way of relating to the world, to a way of being in the world. Preference, as a pristine element of value assignment, acquires a proper, a priori and differential position: the Man-person eats and nourishes himself as he is, and not how he eats. Thus, the anthropological essence of Man is not something inferred from his biological eating behaviour: Man does not come from an inductive theoretical construct from what he does, but Man himself builds a world for himself that is a symbolic world, a world full of value. Man creates the world.

Thus, from the beginning, Man feeds himself as a person. From the axiological perspective of the symbolic world of food, low values are attributed to those things that Man desires because they are useful, in that they answer a physical, emotional, psychological or even biological need. High values, however, are given to things that are not desired because of personal need; high values are those that are desired in themselves.

One might draw the conclusion from this dichotomy that Man ate for sustenance at first, and that the biological (nutritional) or psychological-emotional (food) impulses are the basis for the desirability of food. We want to refute this point of view.

Certainly, eating as a primal behaviour is a

biological satisfaction of physical needs guided by instinct. However, from an anthropological point of view, it soon stopped being solely that.

More than any other diet, the Mediterranean diet distances us from the concept of food as mere sustenance, ingested solely to maintain vital functions. From earliest times, Man has cooked in order to share food with others. He shares a table with an enemy as a symbol of forgiveness. He respects the biological balance of his surroundings, and develops the environment in a socially responsible manner. Food is the means for achieving higher goals: the preservation of the species, communion with the community, celebrations, tributes, pledges, and also burnt offerings. Even the manner of sacrificing a living being, conserving it and making consumable portions assumes the expression of high values; in other words, moral values. Man gives, shares, cares, offers, sacrifices, salutes, recognises, bestows, and believes through food. In this sense, the bread and wine of the Eucharist assume not only the participation of Christ, but the world that God has created for him. Man assimilates the world through consumption, which is an intimate participation in life itself. For Man, sacrifice and burnt offerings are about life and participation and not death.

This is where we are. We have moved away from food as a mere commodity. How far we are from the act of ingesting something unpleasant or disliked. How an old man who has lost the love of his life abandons his nutrition! How someone who has no one with whom to share meals no longer pays attention to food. How eagerly we search for a newspaper when the time comes to eat alone, and face food simply as sustenance.

From our anthropological essence, we go beyond the animality of food as simply an object to claim the ultimate meaning of food as that which makes us people that grow with people. Moreover, from this anthropological and axiological essence we must understand our way of feeding ourselves: a way of eating is a way of living that builds and defines us.

The alienation of modern Man is reflected in the loss of the symbolic value of food. In the industrial society, food is just food. We have to eat at certain hours, in a certain space and at a certain time.

Individual portions are designed to prevent over-eating, or for eating alone. Dishes are not collective. Food is valued for its nutrients, designed for automatic, standardised feeding. It is served with plastic cutlery, so we won't have to wash those wonderful instruments with which we eat. Food is pasteurised, ionised, pre-cooked and packaged so as not to waste time eating. Preservatives and colorants are added to make food acceptable to all palates.

Let us recover the smell of bread in which we see the soul and dreams of the person that kneaded it; the bread that our grandparents taught us to kiss when it fell to the ground. Let us return to the fresh seafood caught by the fishermen of our coastal fleet; to the locally sourced products that speak to us of our land and our ancestors; to the restaurants with holes in the tablecloths from years of use. Let us peel potatoes with our children, and fry them together as a family, rather than sticking a pizza in the oven and watching television. Let us dunk the bread in the shared dishes that unite all the members of a family. Let us make aioli together, and pass the mortar to our wife when our arm falls asleep.

The Mediterranean diet as intangible cultural heritage. All peoples, and every society, have their own type of food. The relationship between Man and food is dynamic.

Seasonality, biodiversity, nutrient density, and the use of a variety of traditional and local food products, as well as culinary traditions, are important elements of the Mediterranean diet. In addition to being a sustainable diet on an individual level, thanks to the flexibility in terms of food selection and the accessibility of staple ingredients, it is also sustainable for the planet.

There are diet-related factors in plant foods that affect bioavailability include: the chemical form of the nutrient in food and/or nature of the food matrix; interactions between nutrients and other organic components, pre-treatment of food as a result of processing and/or preparation practice³³.

Conclusion

The chef Mario Sandoval points out that it is important than the diner does not forget what you have been given to eat. The connection with that person, communication with people is always attained through

something intense and primitive: food'.

To conclude, we urge the importance of highly specialised training for restaurateurs in the binomial of health-food quality and in the scientific-technical knowledge essential for the new cuisine of the future. In our culture, affection is demonstrated in the form of food, and abundant food appears to be the engine of the social language of the moment and the vehicle of interpersonal communication. We must protect the relationship between the sensations aroused by the pleasure of sharing a good meal with others in an appropriate setting and with sufficient time to fully savour its enjoyment. The enthrallment of tastes and colour will fill our sensations through a variety of recipes.

Following the Mediterranean diet involves a low consumption, or even an absence, of red meat, processed meats, sweet desserts, and processed foods rich in sugars and fats. Food preparation should be better adjusted to the Mediterranean culinary style to improve nutrient intake.

Let us recover the Mediterranean soul, the symbolic food that keeps our heart alive. It is our diet, our life, our intimate way of living and dying.

References

1. Flandrin, J.L. Historia de la alimentación: Por una ampliación de las perspectivas. Manuscripts. 1987. 6:12.
2. Pérez-Samper, M.A. La Historia de la alimentación. In *Chronica Nova*. 2009. 35: 105–162.
3. Berry, E.M., Arnoni, Y., Aviram, M. The Middle Eastern and Biblical Origins of the Mediterranean Diet. In *Public Healt. Nutr.* 2011. 14 (12A): 2288–95.
4. Ruiz, J. La vida como cultura. Aproximación antropológica. Huerga & Fierro. 2003.
5. Simopoulos, A.P. Genetic Variation and Nutrition. In *World Rev Nutrition & Dietetics*. 1999. 84:118-40.
6. del Balzo, V., Diolordi, L., Pinto, A., Giusti, A. M., Vitiello, V., Cannella, C., Dernini, S., Donini, L. M. and Berry, E M. Mediterranean Diet Pyramids: Towards the Italian Model. In *Annali di igiene. Medicina Preventiva e di Comunita*. 2012. 24 (5): 443–447.
7. Cruz, J. Religiosidad de la gastronomía primitiva. In *Regusto*. 2011.
8. Salas-Salvadó, J., Casas-Agustench, P. and Salas-Huetos, A. Cultural and Historical Aspects of Mediterranean Nuts with Emphasis on their Attributed Health and Nutritional Properties. In *Nutrition Metabolism Cardiovascular Disease*. 2011. (21): S1–S6.
9. Sánchez, F.J. *Nutrición y Felicidad. Discurso ingreso Real Academia Nacional de Farmacia*. 2013.
10. Altomare, R., Cacciabaudo, F., Damiano, G., Palumbo, V.D., Gioviale, M.C., Bellavia, M., Tomasello, G. and Lo Monte, A.I. The Mediterranean Diet: A History of Health. In *Iranian Journal of Public Health*. 2013. 42 (5): 449–457.
11. Braudel, F. *Civilización material, economía y capitalismo, siglos XV-XVIII*. Madrid, Alianza, 1984. Pp. 75–189.
12. Sastre, A. *Gastronomía, nutrición y enfermedad*. In *ANS*. 1996 (2): 23–25.
13. Aranceta, J., Pérez, C., Amela, C., García, R., and Moreno, E. Factores determinantes de los hábitos y preferencias alimentarias en la población adulta de la Comunidad de Madrid. Dirección General de Prevención y Promoción de la Salud. Documento Técnico de Salud Pública nº23, Madrid. 1995.
14. Delgado-Andrade, C., Morales, F.J., Seiquer, I., and Navarro, M.P. Maillard Reaction Products Profile and Intake From Spanish Typical Dishes. In *Food Research International*. 2010. 43 (5): 1304–1311.
15. Cruz, J. *Teoría elementaa de la Gastronomía*. Eunsa. 2002.
16. Flandrin, J.L. and Montanari, M. (eds.) *Historia de la alimentación*. Trea. 2004.
17. Carbajal A. and Ortega, R. La dieta mediterránea como modelo de dieta prudente y saludable. In *Revista Chilena de Nutrición*. 2001. 28 (2): 224–236.
18. Laín Entralgo, P. *Qué es el hombre. Evolución y sentido de la vida*. Nobel. 1999.
19. Castro Rodríguez, B., Castells Esqué, P., and Martínez de Victoria, E. *Nutrición, cocina y gastronomía*. Cap. 16. In *Tratado de Nutrición*.

- Tomo III. Nutrición Humana en el Estado de Salud 2nd ed. Ángel Gil Dir. Ed. Médica Panamericana. Madrid. 2010.
20. Bach-Faig, A., Berry, E.M., Lairon, D., Reguant, J., Trichopoulou, A., Dernini, S., Medina, F.J., Battino, M., Belahsen, R., Miranda, G. and Serra-Majem, L. Mediterranean diet pyramid today. Science and cultural updates. *Public Health Nutrition*. 2011. 14 (12A): 2274–2284.
21. Saura-Calixto, F., and Goñi, I. Definition of the Mediterranean diet based on bioactive compounds. *Critical Rev. Food sci. Nutr*. 2009. 49: 1-8.
22. Trichopoulou, A. and Lagiou, P. The Mediterranean diet: Definition, epidemiological aspects and current patterns. In *The Mediterranean Diet: Constituents and Health Promotion*. pp. 53–73. Matalas, A-L., Zampelas, A., Stavrinus, V., and Wolinsky, I., Eds. C.R.C. Press Modern Nutrition, Boca Raton, Fla. USA. 2001.
23. Trichopoulou, A., Orfanos, P., Norat, T. EPIC Group. Modified Mediterranean diet and survival: EPIC-elderly prospective cohort study. *Brit. Med. J*. 2005. 330: 991–994.
24. Iglesias, M.T., Pazos, I. Gastronomía y Dieta Mediterránea de la teoría a la práctica. In *Dieta mediterránea*. Román, J. and Villarino, A. (eds.), pp.135–143.
25. Martínez-González, M.A., Hershey, M.S., Zazpe, I., Trichopoulou, A. Transferability of the Mediterranean Diet to Non-Mediterranean Countries. What Is and What Is Not the Mediterranean Diet. *Nutrients*. 2017. 9: 1226; doi:10.3390/nu9111226.
26. Sánchez-Villegas A, Delgado-Rodríguez M, Alonso A, Schlatter J, Lahortiga F, Serra Majem L, Martínez-González MA. Association of the Mediterranean dietary pattern with the incidence of depression: the Seguimiento Universidad de Navarra/University of Navarra follow-up (SUN) cohort. *Arch Gen Psychiatry*.2009; 66:1090-8. Martínez-Lapiscina EH, Clavero P, Toledo E, Estruch R, Salas-Salvadó J, San Julián B et al. Mediterranean diet improves cognition: the PREDIMED-NAVARRA randomised trial. *J Neurol Neurosurg Psychiatry*. 2013; 84:1318±25.
27. Galbete C, Toledo E, Toledo JB, Bes-Rastrollo M, Buil-Cosiales P, Marti A. et al. Mediterranean diet and cognitive function: the SUN project. *J Nutr Health Aging*. 2015; 19:305-12.
28. Valls-Pedret C, Sala-Vila A, Serra-Mir M, Corella D, de la Torre R, Martínez-González MA et al. Mediterranean Diet and Age-Related Cognitive Decline: A Randomized Clinical Trial. *JAMA Intern Med*. 2015; 175:1094-103
29. Liu C, Xie B, Chou CP, Koprowski C, Zhou D, Palmer P et al. (2007). Perceived stress, depression and food consumption frequency in the college students of China Seven Cities. *Physiol Behav*. 92, 748-754.
30. Sofi, F, Cesari, F, Abbate, R. Gensini, GF, and Casini, A. Adherence to Mediterranean diet and health status. *BMJ* 2008. 337: 1–7
31. Romagnolo, DF & Selmin, OI Mediterranean Diet and prevention of chronic diseases. *Nutrition Today*, 2017, 52(5), 208–222.
32. Figueiredo-Gonzalez M, Reboredo-Rodríguez P, Gonzalez-Barreiro C, Simal-Gandara J, Valentão P, Carrasco-Pancorbo A, Cancho-Grande B. (2018). Evaluation of the neuroprotective and antidiabetic potential of phenol-rich extracts from virgin olive oils by in vitro assays. *Food Research International*, 106, 558–567.
33. Denise Dohrmann D, Putnik P, Bursac Kovacevic D, Simal-Gandara J, Lorenzo JM, Barna FJ. Japanese. Mediterranean and Argentinean diets and their potential roles in neurodegenerative diseases. *Food Res, Internat*. 2018 (In press)