



Review Article / Derleme Makalesi

## Mediterranean Diet and Sustainability\*

### Akdeniz Diyeti ve Sürdürülebilirlik\*

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#### ABSTRACT

The Mediterranean diet represents a sustainable nutritional model that offers significant benefits for both individual health and environmental preservation. Predominantly composed of plant-based foods—including seasonal fruits and vegetables, whole grains, legumes, and olive oil—with limited consumption of meat and dairy products, this dietary pattern provides essential nutrients while minimizing ecological impact through low carbon and water footprints. Olive oil, as a central component, contributes to health via its antioxidant and anti-inflammatory properties. The diet also supports biodiversity by encouraging organic agricultural practices. Numerous studies have demonstrated that adherence to the Mediterranean diet is associated with reduced risk of chronic conditions such as diabetes, cardiovascular disease, obesity, and metabolic syndrome. In the context of industrialization, population growth, and modern lifestyle pressures, adopting dietary practices that integrate health promotion with environmental sustainability is essential for safeguarding natural resources and ensuring a livable world for future generations. Implementation of the Mediterranean diet should emphasize local, seasonal, and minimally processed foods, moderate animal product consumption, and socially engaging meal habits, highlighting its practicality and adaptability as a model for sustainable nutrition.

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#### ÖZET

Akdeniz diyeti, bireysel sağlık ve çevresel koruma açısından önemli faydalar sunan sürdürülebilir bir beslenme modeli olarak öne çıkmaktadır. Temel olarak bitkisel kaynaklı besinlerden—mevsimsel meyve ve sebzeler, tam tahıllar, baklagiller ve zeytinyağı—oluşan bu beslenme biçimi; et ve süt ürünlerinin sınırlı tüketimi ile birlikte, gerekli besin öğelerini sağlarken düşük karbon ve su ayak izi sayesinde ekolojik etkiyi en aza indirmektedir. Diyetin merkezinde yer alan zeytinyağı, antioksidan ve antiinflatuvar özellikleri aracılığıyla sağlığa katkıda bulunmaktadır. Ayrıca, organik tarım uygulamalarını teşvik etmesi yoluyla biyolojik çeşitliliği desteklemektedir. Çok sayıda çalışma, Akdeniz diyetine uyumun diyabet, kardiyovasküler hastalıklar, obezite ve metabolik sendrom gibi kronik hastalık riskini azalttığını ortaya koymuştur. Sanayileşme, nüfus artışı ve modern yaşam tarzı baskıları bağlamında, sağlıkla birlikte çevresel sürdürülebilirliği de bütünleştiren beslenme yaklaşımlarının benimsenmesi, doğal kaynakların korunması ve gelecek nesiller için yaşanabilir bir dünyanın teminat altına alınması açısından elzemdir. Akdeniz diyetinin uygulanmasında, yerel, mevsimsel ve minimum düzeyde işlenmiş gıdaların tercih edilmesi, hayvansal ürünlerin ölçülü tüketilmesi ve sosyal etkileşimi teşvik eden yemek alışkanlıklarının öne çıkarılması; onun sürdürülebilir beslenme modeli olarak pratikliğini ve uyarlanabilirliğini vurgulamaktadır.

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## 1. Introduction

The acceleration of industrialization since the Industrial Revolution, the expansion of modern cities, and the rapid increase in population have intensified environmental pollution and contributed to a decline in biodiversity. At the same time, the growing global population has increased pressure on natural resources, making sustainability a pressing global concern. In response, the United Nations introduced 17 Sustainable Development Goals to promote solutions for environmental protection, social equity, and improved quality of life (Guillaumie, Boiral, Baghdadi, & Mercille, 2020). Sustainability is broadly defined as the ability to endure, persist, and maintain existence into the future. In this context, the Food and Agriculture Organization (FAO) and the United Nations Environment Programme (UNEP) launched the Sustainable Nutrition and Food Security campaign to reduce food waste, ensure access to safe and nutritious food, alleviate poverty, and safeguard the planet for future generations (Pekcan, 2019).

The foundation of sustainable nutrition lies in consuming adequate and balanced diets, which emphasize seasonal fruits and vegetables and encourage plant-based protein sources (Demir & Akay, 2020). To sustain both nutrition and global health, natural resources must be used responsibly, while environmentally harmful practices should be avoided (Can, Bayram, & Ozturkcan, 2021). One well-recognized model in this regard is the traditional Mediterranean diet, shaped over centuries of cultural and agricultural interactions in the Mediterranean region. Although widely practiced until the mid-20th century, it has gradually declined under the influence of globalization and Western lifestyles (Burlingame & Dernini, 2011). Beyond being a healthy lifestyle, the Mediterranean diet is also considered a sustainable dietary pattern due to its predominantly plant-based nature, which is associated with a relatively low ecological, carbon, and water footprint (Aboussaleh, Capone, & Bilali, 2017). However, it is important to recognize that such dietary models may face regional limitations, as not all countries have equal access to Mediterranean food resources, and cultural or economic barriers can affect the feasibility of adopting plant-based diets.

## 2. The Concept of Sustainability

The term sustainability was first used in the 1987 report *Our Common Future*, published by the World Commission on Environment and Development under the United Nations. The report

states: “Humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs.”

In summary, sustainability refers to the ability to endure over time, to secure the future, and to maintain existence (Demir & Akay, 2020).

As sustainability began to be integrated into multiple sectors such as energy, agriculture, and health, the field of nutrition also adopted this framework through the concept of sustainable diets. The term sustainable nutrition was first introduced by Gussow and Clancy in 1986 (Özen, 2019). They emphasized that a sustainable diet should simultaneously promote human health, support environmental protection, and ensure the fair use of resources. In other words, sustainable nutrition seeks to align dietary practices with both ecological balance and long-term food security.

## 3. Sustainable Nutrition

The Food and Agriculture Organization (FAO) defines sustainable nutrition as a diet that ensures nutritional needs for current and future generations, respects and protects biodiversity and ecosystems, is culturally acceptable, accessible, economically fair and affordable, nutritionally adequate, safe, and healthy (FAO, 2019). In the context of sustainable nutrition, given the depletion of natural resources and environmental pollution, dietary models and foods with low environmental impact should be preferred over those with high ecological burdens. Diets that align with sustainable nutrition principles should possess low water and carbon footprints, be nutritionally beneficial, accessible, and support dietary diversity (Can, Bayram, & Ozturkcan, 2021). Although the concept of a sustainable diet is not new, public awareness regarding its components remains limited (Johnston, Fanzo, & Cogill, 2014).

Sustainable diets are grounded in six essential pillars:

- Health and well-being
- Biodiversity
- Equity and fair trade
- Environmentally friendly, local, and seasonal foods
- Cultural heritage and culinary skills
- Food and nutrient requirements, food security, and accessibility

Because eating habits are modifiable and environmental sustainability is directly linked to human health, nutrition has become a central issue (Grosso, Fresán, Bes-Rastrollo, Marventano,

& Galvano, 2020). According to global modeling analysis, replacing animal-based foods with plant-based alternatives would reduce environmental impacts and improve health. By shifting agricultural production from quantity to quality—focusing on sufficient and healthy food—it is estimated that food loss and waste could be reduced by at least 50%, which would significantly lessen environmental burdens (Willett et al., 2019).

Nevertheless, the widespread adoption of sustainable diets faces several barriers. In low-income regions, the cost and limited accessibility of diverse plant-based foods can hinder transitions toward sustainable nutrition. Furthermore, cultural traditions and dietary preferences, particularly those centered around high meat consumption, may create resistance to change. Addressing these challenges is essential to ensure that sustainable nutrition is both practical and inclusive across different populations.

#### 4. The Mediterranean Diet Pyramid

The Mediterranean diet, inherited from the communities of the Mediterranean region, was recognized in 2010 by UNESCO as an "Intangible Cultural Heritage of Humanity." In the same year, the Mediterranean diet pyramid was updated to align with modern living conditions, and its most recent version was completed in 2011 (Bach-Faig et al., 2011). While it is regarded as a model of both healthy and sustainable eating, adapting the Mediterranean diet outside its region of origin may pose challenges. Factors such as the limited availability or higher cost of traditional Mediterranean foods (e.g., olive oil, fresh seafood, or specific fruits and vegetables), as well as cultural dietary preferences, can affect its applicability in non-Mediterranean settings. In this regard, the concept of dietary pattern transferability becomes essential, highlighting the need to assess how a dietary model can be adapted to different cultural, economic, and ecological contexts (Fanzo et al., 2022). Therefore, successful implementation requires flexibility and substitution with locally available, affordable, and culturally acceptable alternatives, while preserving the Mediterranean diet's core principles of plant-based diversity, moderation, and sustainability.



Figure 1. Mediterranean diet pyramid (Bach-Faig et al., 2011).

The Mediterranean diet pyramid (Figure 1) is designed to meet the nutritional requirements of healthy adults aged 18–65, while allowing for adaptation to special populations, including pregnant or lactating women, the elderly, children, and individuals with specific health conditions. At the base of the pyramid are grain-based products, such as bread, pasta, and couscous, with a recommended average intake of eight servings per day (Bach-Faig et al., 2011). Vegetables should be incorporated into lunch and dinner meals or consumed as part of salads, with a minimum of two servings daily, while fruits, recommended as nutritious alternatives to desserts, should also be consumed in at least two servings per day. Although not explicitly represented in the pyramid, a daily water intake of 1.5–2.0 liters is strongly advised.

Low-fat dairy products, including cheese and yogurt, should be consumed according to individual dietary needs, with attention to portion control. Olive oil, a key source of vitamin E and a cornerstone of the Mediterranean dietary pattern, is recommended for daily use, with approximately one tablespoon per person incorporated into meals or salad dressings. The pyramid's weekly consumption category includes protein-rich foods of both animal and plant origin, such as fish and eggs, which provide essential amino acids. Red and processed meats should be limited in quantity and consumed infrequently. The combination of legumes with grains is encouraged to enhance protein quality and achieve a balanced amino acid profile. Foods and beverages high in added sugars or classified as ultra-processed—such as packaged snacks, sweets, and soft drinks—are positioned at the apex of the pyramid and should be consumed only occasionally (Bach-Faig et al., 2011).

#### 5. Olive Oil

Olive oil is at the heart of the Mediterranean diet pyramid and is considered its most essential component. It is recommended to

consume 25–50 ml of olive oil daily as part of the diet. The anti-inflammatory and antiplatelet aggregation effects of olive oil stem from its phenolic compounds, while its cholesterol- and blood pressure-lowering effects and its cardiovascular protective properties are attributed to its high content of monounsaturated fatty acids. The antioxidant effects and heart-protective properties are also largely due to phenolic compounds such as vitamin E and carotenoids (Caramia, Gori, Valli, & Cerretani, 2012; Cicerale, Lucas, & Keast, 2010; Jaen, 2005).

## 6. Mediterranean-style Eating

The Mediterranean diet primarily consists of olive oil, fruits and vegetables (fresh or dried), whole grains (mostly unprocessed), limited amounts of meat, fish, dairy products, and various herbs and spices. In contexts where religious or social norms allow, moderate consumption of wine may also be part of the diet. However, the Mediterranean diet is more than just a nutritional model—it also encompasses a lifestyle. It includes shared meals that foster social interaction, as well as traditions such as songs, proverbs, stories, and legends that are passed down through generations (FAO, 2019).

## 7. Evaluation of The Mediterranean Diet in Terms of Sustainability

The sustainability of the Mediterranean diet derives not only from its food components but from its holistic philosophy, which integrates nutrition, culture, biodiversity, and local food systems into a single framework (Burlingame & Dernini, 2011). The updated Mediterranean diet pyramid, adapted to modern lifestyles, extends beyond food quantity and frequency to include cultural practices, moderation, social interaction, physical activity, rest, and seasonality, while emphasizing biodiversity-friendly and environmentally responsible foods (Bach-Faig et al., 2011).

Compared to other dietary patterns, the Mediterranean diet has a lower ecological footprint due to its reliance on local, seasonal, plant-based foods and its limited use of animal products (Serra-Majem et al., 2020). Organic farming, integral to the model, further enhances soil fertility and biodiversity (Seconda et al., 2017). Importantly, the diet's ecological, social, and health dimensions interact to form a sustainable system that is both environmentally sound and culturally resilient (Cavaliere, De Marchi, & Banterle, 2018). A survey in Spain estimated that adherence to the diet could reduce greenhouse gas emissions by 72%, land use by 58%, energy consumption by 52%, and water use by 33%, demonstrating its

potential in a globalized society (Estruch et al., 2018; Rosato et al., 2019).

From a health perspective, adherence to the Mediterranean diet reduces the risk of cardiovascular disease, obesity, diabetes, and metabolic syndrome (Barbaros & Kabaran, 2014; Huo et al., 2015; Kastorini et al., 2011). Thus, the Mediterranean diet stands out as a balanced nutritional model that promotes both human health and environmental sustainability.

## 8. Conclusion

Compared to many other dietary models, the Mediterranean diet is considered one of the most sustainable and has guided extensive research in this field. In light of new studies, the rapidly growing global population—and the simultaneous depletion of essential resources such as water, soil, and food poses a serious future threat, potentially making it difficult to meet even basic nutritional needs. Therefore, proactive measures must be taken to protect both human health and the environment.

Integrating the Mediterranean diet and similar low-impact dietary patterns into daily life is a critical first step. Adapting nutritional habits should focus on locally available, seasonal, fresh, and minimally processed foods. Each main meal ideally includes vegetables, fruits, and grains, with olive oil as the primary fat source and fish consumed at least twice a week. From an environmental perspective, differences between wild-caught and farmed fish, including their diets, significantly affect ecological impact. Anticipating future limitations in fish supply, plant-based or algae-derived omega-3 sources represent practical alternatives that should be further promoted. Processed meats, sweets, and pastries should remain at the top of the Mediterranean diet pyramid, to be consumed very rarely, while animal products in general should be reduced to weekly rather than daily intake.

While these recommendations are scientifically grounded, implementing them across diverse populations presents challenges. Urban residents, low-income communities, or those with limited access to fresh and local foods may face barriers to adopting the Mediterranean model. Strategies to address these issues include improving food accessibility, promoting affordable alternatives, supporting community-based initiatives such as urban gardening, and raising awareness through education and public policy.

Additionally, the Mediterranean diet emphasizes social interaction and communal eating, which can enhance well-being and support adherence. By combining nutritional benefits, environmental sustainability, and social practices, the Mediterranean diet and

similar sustainable dietary models offer a feasible framework for improving both public health and the livability of our environment.

## 9. Article Information / Makale Bilgileri

**Evaluation:** Two External Reviewers / Double Blind

**Değerlendirme:** İki Dış Hakem / Çift Taraflı Körleme

**Ethical Consideration:** Since this research is a review, ethical committee approval is not required.

It is declared that scientific and ethical principles were complied with during the preparation of this study and all the studies used in this study were cited in the bibliography. No artificial intelligence-based tools or applications were utilized in the preparation of this manuscript. All content was generated solely by the author(s) in adherence to scientific research methodologies and academic ethical standards.

**Etik Beyan:** Bu araştırma bir derleme olduğundan etik kurul izni gerekmemektedir.

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## References

Aboussaleh, Y., Capone, R., & Bilali, H. El. (2017). Mediterranean food consumption patterns: Low environmental impacts and significant health–nutrition benefits. *Proceedings of the Nutrition Society*, 76(4), 543–548. <https://doi.org/10.1017/S0029665117001033>

Bach-Faig, A., Berry, E. M., Lairon, D., Reguant, J., Trichopoulou, A., Dernini, S., Medina, F. X., Battino, M., Belahsen, R., Miranda, G., & Serra-Majem, L. (2011). Mediterranean diet pyramid today. Science and cultural updates. *Public Health Nutrition*, 14(12A), 2274–2284. <https://doi.org/10.1017/S1368980011002515>

Barbaros, B., & Kabaran, S. (2014). Akdeniz diyeti ve sağlığı koruyucu etkileri. *Beslenme ve Diyet Dergisi*, 42(2), 140–147.

Burlingame, B., & Dernini, S. (2011). Sustainable diets: The Mediterranean diet as an example. *Public Health Nutrition*, 14(12A), 2285–2287. <https://doi.org/10.1017/S1368980011002527>

Can, B., Bayram, H. M., & Ozturkcan, A. (2021). Çevresel sorunlara karşı çözüm önerileri: Güncel sürdürülebilir beslenme uygulamalarına genel bakış. *Gıda*, 46(5), 1138–1157. <https://doi.org/10.15237/gida.GD21062>

Caramia, G., Gori, A., Valli, E., & Cerretani, L. (2012). Virgin olive oil in preventive medicine: From legend to epigenetics. *European Journal of Lipid Science and Technology*, 114(4), 375–388. <https://doi.org/10.1002/ejlt.201100164>

Cavaliere, A., De Marchi, E., & Banterle, A. (2018). Exploring the adherence to the Mediterranean diet and its relationship with individual lifestyle: The role of healthy behaviors, pro-environmental behaviors, income, and education. *Nutrients*, 10(2), 141. <https://doi.org/10.3390/nu10020141>

Cicerale, S., Lucas, L., & Keast, R. (2010). Biological activities of phenolic compounds present in virgin olive oil. *International Journal of Molecular Sciences*, 11(2), 458–479. <https://doi.org/10.3390/ijms11020458>

Demir, L. S., & Akay, G. (2020). Toplum beslenmesinde sürdürülebilirlik ve çevre. *Selcuk Tip Dergisi*, 3(36), 282–287. <https://doi.org/10.30733/std.2020.01341>

Estruch, R., Ros, E., Salas-Salvadó, J., Covas, M.-I., Corella, D., Arós, F., Gómez-Gracia, E., Ruiz-Gutiérrez, V., Fiol, M., Lapetra, J., Lamuela-Raventós, R. M., Serra-Majem, L., Pintó, X., Basora, J., Muñoz, M. A., Sorlí, J. V., Martínez, J. A., Fitó, M., Gea, A., Hernán, M. A., & Martínez-González, M. A. (2018). Primary prevention of cardiovascular disease with a Mediterranean diet supplemented with extra-virgin olive oil or nuts. *New England Journal of Medicine*, 378(25), 141. <https://doi.org/10.1056/NEJMoal800389>

FAO. (2019). Sustainable healthy diets: Guiding principles. Food and Agriculture Organization of the United Nations.

Grosso, G., Fresán, U., Bes-Rastrollo, M., Marventano, S., & Galvano, F. (2020). Environmental impact of dietary choices: Role of the Mediterranean and other dietary patterns in an Italian cohort. *International Journal of Environmental Research and Public Health*, 17(5), 1468. <https://doi.org/10.3390/ijerph17051468>

Guillaumie, L., Boiral, O., Baghdadi, A., & Mercille, G. (2020). Integrating sustainable nutrition into health-related institutions: A systematic review of the literature. *Canadian Journal of Public Health*, 111(6), 845–861. <https://doi.org/10.17269/s41997-020-00394-3>

Gülden Pekcan, A. (2019). Sürdürülebilir beslenme ve beslenme örüntüsü: Bitkisel kaynaklı beslenme. *Journal of Nutrition and Dietetics*, 47(2), 1–10. <https://doi.org/10.33076/2019.BDD.1268>

Huo, R., Du, T., Xu, Y., Xu, W., Chen, X., Sun, K., & Yu, X. (2015). Effects of Mediterranean-style diet on glycemic control, weight loss and cardiovascular risk factors among type 2 diabetes individuals: A meta-analysis. *European Journal of Clinical Nutrition*, 69(11), 1200–1208. <https://doi.org/10.1038/ejcn.2014.243>

Jaen. (2005). International conference on the healthy effect of virgin olive oil. *European Journal of Clinical Investigation*, 35(7), 421–424. <https://doi.org/10.1111/j.1365-2362.2005.01516.x>

Johnston, J. L., Fanzo, J. C., & Cogill, B. (2014). Understanding sustainable diets: A descriptive analysis of the determinants and processes that influence diets and their impact on health, food security, and environmental sustainability. *Advances in Nutrition*, 5(4), 418–429. <https://doi.org/10.3945/an.113.005553>

Kastorini, C.-M., Milionis, H. J., Esposito, K., Giugliano, D., Goudevenos, J. A., & Panagiotakos, D. B. (2011). The effect of Mediterranean diet on metabolic syndrome and its components. *Journal of the American College of Cardiology*, 57(11), 1299–1313. <https://doi.org/10.1016/j.jacc.2010.09.073>

Rosato, V., Temple, N. J., La Vecchia, C., Castellan, G., Tavani, A., & Guercio, V. (2019). Mediterranean diet and cardiovascular disease: A systematic review and

meta-analysis of observational studies. *European Journal of Nutrition*, 58(1), 173–191. <https://doi.org/10.1007/s00394-017-1582-0>

Seconda, L., Baudry, J., Allès, B., Hamza, O., Boizot-Szantai, C., Soler, L.-G., Galan, P., Hercberg, S., Lairon, D., & Kesse-Guyot, E. (2017). Assessment of the sustainability of the Mediterranean diet combined with organic food consumption: An individual behaviour approach. *Nutrients*, 9(1), 61. <https://doi.org/10.3390/nu9010061>

Serra-Majem, L., Tomaino, L., Dernini, S., Berry, E. M., Lairon, D., Ngo de la Cruz, J., Bach-Faig, A., Donini, L. M., Medina, F.-X., Belahsen, R., Piscopo, S., Capone, R., Aranceta-Bartrina, J., La Vecchia, C., & Trichopoulou, A. (2020). Updating the Mediterranean diet pyramid towards sustainability: Focus on environmental concerns. *International Journal of Environmental Research and Public Health*, 17(23), 8758. <https://doi.org/10.3390/ijerph17238758>

Ünal Özen, G. (2019). Diyetisyen ve diyetisyen adaylarının sürdürülebilir beslenme konusundaki bilgi ve tutumlarının değerlendirilmesi (Master's thesis). Hacettepe Üniversitesi Sağlık Bilimleri Enstitüsü, Ankara.

Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., Garnett, T., Tilman, D., DeClerck, F., Wood, A., Jonell, M., Clark, M., Gordon, L. J., Fanzo, J., Hawkes, C., Zurayk, R., Rivera, J. A., De Vries, W., Majele Sibanda, L., Afshin, A., Chaudhary, A., Herrero, M., Agustina, R., Branca, F., Lartey, A., Fan, S., Crona, B., Fox, E., Bignet, V., Troell, M., Lindahl, T., Singh, S., Cornell, S. E., Srinath Reddy, K., Narain, S., Nishtar, S., & Murray, C. J. L. (2019). Food in the Anthropocene: The EAT–Lancet Commission on healthy diets from sustainable food systems. *The Lancet*, 393(101)