

IN DEPTH

Human physiology is based on balance. Human Nutrition also.

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by Giovanni Vanni Frajese, Scientific Advisor, World Farmers' Organisation

Human physiology is based on balance: A varied, balanced diet, based on local sustainable traditions and healthy unprocessed fresh foods is, and has been for long, the healthiest choice in human nutrition.

Nowadays, the international debate on nutrition, sustainability and food security is shaping the way people will eat in the future (1,2).

Sustainable diets have become a key issue in public health nutrition (3,4,5,6,7) driving the development of food systems (8,9,10). The FAO has estimated that by 2050, in order to satisfy the needs of a growing and richer world population, with increased demand for animal products, food production will have to increase by at least 60 % (11). The need for a radical change in food production and consumption over the coming decades (12) has stirred scientists, governments, NGOs and other stakeholders, to propose and implement sustainable diets. "Sustainable diets are those diets with low environmental impacts which contribute to food and nutrition security and to a healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources (11)". Sustainable global diets have been discussed recently in three summary publications (13,14,15) - the Lancet EAT commission on healthy diets from sustainable food systems; the international expert report on the policy reform and realignment that is required to build sustainable food systems in Europe; and the FAO report on biodiversity for food and agriculture.

All environmental analyses agree on the need to promote more plant-based diets-achieved practically by using "more forks than knives" and mostly abandoning animal-based products. Interestingly these recent publications have overlooked that, a

sustainable, scientific-proven healthy, and up to date with modern needs diet, is already available today. It is based on frugality and local habits, enhancing biodiversity, seasonality, culinary activities and tradition. It's local and produces eco-friendly food products and conviviality.

Add adequate rest, water intake and regular physical activity and the scientific efficient recipe is ready.

It's called The Mediterranean Diet Pattern, and it has been around some 5000 years.

It's called the Mediterranean, because of the area in which it was over time developed, changed and integrated with several different cultures. There is no single Mediterranean diet, but rather many variations according to the different cultures and religions, of a common nutritional theme.

Olive oil and olives, fruits, vegetables, cereals (mostly unrefined), legumes, and nuts, moderate amounts of fish and dairy products, and low quantities of meat and meat products.

In the last 60 years, it has evolved from a "traditional" diet to a sustainable dietary pattern (16).

The scientific confirmation of its beneficial health effects began with the ground-breaking Seven Countries Study conducted by Ancel Keys (17) in the 60s and has been confirmed and expanded ever since. The Mediterranean pattern has a positive, proven, effect on: Cardiovascular disease (18), Diabetes and metabolic Syndrome (19), hypertension and chronic diseases (20), cancer and its prevention (21), ageing (22), Alzheimer's disease (23), immunity (24), mental disorders such as depression (25), as well as the quality of life (26). It is a varied and balanced diet, inclusive of all categories of foods, linked only with beneficial aspects to human health. The Vegetarian or Vegan diet, supported by the latest scientific trends, while having beneficial effects on ischemic heart



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disease, has a disputed effect on cancer (27,28) and might have a higher risk of strokes according to a recent study (27). Furthermore, it has a higher risk of anemia, lack of vitamin B12, other undesired effects on hematological parameters (29), and has been associated with poorer health (higher incidences of allergies and mental health disorders), a higher need for health care, and poorer quality of life (28). Meat eaters are protected from stroke (27), meat should be used in healthy nutrition according to the Nutritional Recommendations (NutriRECS) Consortium (30), and the previous studies linking meat consumption to cancer and cardio-metabolic disease have been recently strongly challenged (31,32). Healthy nutrition is based on balance, and this is easier to obtain not excluding or demonizing any food category.

The Mediterranean Dietary Pattern (MDP) besides its well-known health and nutritional benefits, offers a lower environmental impact and richness in biodiversity compared to other current dietary patterns (33,34,35,36,37). It encourages the use of a wide range of cereals, fruits and vegetables, not only cultivated products but also wild species and herbs, thus sustaining them along the local traditional knowledge about their use and specific cooking methods. Increased adherence of the Spanish population to the MDP had a marked impact on all environmental footprints: it reduced greenhouse gas emissions, land use and energy and water consumption, while on the contrary, adherence to a Western dietary pattern increased all these parameters (37). MDP is not a hypothetical projection on a virtual model, it has been, and it is tested daily in the real world, it supports local specificities, ensures the conservation and development of traditional activities and crafts, thereby guaranteeing the balance between the territory and the people and it is economically sustainable (38). Moreover, MDP is not just nutrition, is a way of living, linked to high cultural, social and economic values. Food is given a lot of care in the Mediterranean area, in its preparation, moderation in portion size and attention to avoiding waste. Meals are a moment of conviviality, social exchange and communication, for the family and business transactions (39).

It is no wonder that in 2010 MDP has been acknowledged as an Intangible Cultural Heritage of Humanity: 'The Mediterranean Diet, from the Greek word 'diáita' 'diet' means 'way of life–lifestyle', a set of skills, knowledge, rituals, symbols and traditions, ranging from the landscape to the table. Eating together is the foundation of the cultural identity and continuity of communities throughout the Mediterranean basin. The Mediterranean diet emphasizes values of hospitality, neighborliness, intercultural dialogue and creativity, and a way of life guided by respect for diversity.'

The Mediterranean diet embraces all, discriminates none, it is multi-ethnic, sustainable and healthy. Resources should be employed on revitalizing it and adapting it to different places of the earth, each supporting their particular traditions and local trades, instead of proposing a "one model fits all" approach based on extreme industrial concepts, far from the balance that regulates both the human physiology and the eco-system.

"If more of us valued food and cheer and song above hoarded gold, it would be a merrier world." – J. R. R. Tolkien



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