

« **HOW TRANSLATE FRUIT & VEGETABLES BENEFICIAL ASSETS INTO EFFICIENT CONSUMPTION PRACTICE ?** »

Editorial

As emphasized in Walter Willett's article, fruit and vegetables are a crucial component of a healthy diet designed to improve long-term health. Their daily consumption is highly recommended across all dietary guidelines to prevent non communicable diseases. Obviously, distilling this information to practical advice on healthy eating represents a major challenge.

Despite a large body of evidence of health benefits, fruit and vegetables consumption still remain far below recommended levels in the EU: it has been estimated that less than 50% of EU citizens are reaching the average daily intake of 400g of fruit and vegetables advised.

Policies to promote F&V consumption might have been inadequate... So, a novel approach to agriculture and food policies is necessary.

If political awareness for the importance of fruit and vegetables intakes is growing, it still needs much more support and advocacy. Not only linking agricultural policy with public health, but emphasizing on reducing health inequalities, should be seen as one of the priority actions to change the burden of diet related non communicable diseases. The reduction of health inequalities means that fruit and vegetables are made available and accessible for the whole population, independent of income or other social measure.

Consequently, besides educational and informational approaches to population behavioural change, concrete political and policy efforts at all levels (global, EU, national and local) are needed to increase efficiently fruit and vegetables consumption. It is clear that it represents one of the great challenges of the next decade.

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What are the recommendations and where is the place of fruits and vegetables in a healthy diet?

— Walter Willett —

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There is an enormous body of evidence from studies that range from molecular biology of nutrients to population-level interventions. Distilling this information to practical advice on healthy eating represents a major challenge. As our knowledge is rapidly increasing and becoming more refined and detailed, recommendations require frequent updating.

Dietary recommendations: a permanent updating

Until the past couple of decades, a primary focus of human nutrition was the prevention of nutrient deficiency, and achieving the recommended daily allowances (RDAs)¹ for essential nutrients was the central objective. This approach led to the development of the Basic Seven food groups during World War II and later the Basic Four (meat, dairy, grains, and fruits and vegetables) as the definition of a healthy diet to be conveyed to the public². This effort, together with selective fortification and greater availability of food variety, successfully eliminated most clinically evident nutrient deficiencies from the United States and Europe.

More recently, the definition of a healthy diet has expanded to focus more broadly on the optimization of long-term health, accounting for subclinical dietary insufficiencies as well as excesses.

Elements of a healthy diet can be expressed as foods or nutrients. Using foods is attractive because it is familiar and makes choice and communication easier. Unfortunately, it is virtually impossible to describe an optimal diet only in terms of foods. The main reason is that the same foods can be made in many ways. Besides, the proportion of the food supply that is already processed or is eaten away from home increases. Most guidelines are hybrids that use a combination of food and nutrient criteria.

What about fruits and vegetables?

Fruits and vegetables are the only food recommended as such in many written guidelines. Increasing intakes of fruit and vegetables is a crucial part of the main food-related approaches to preventing non-communicable diseases.

Much of the advice to eat more vegetables and fruits³ has been based on hopes of reducing cancer. However, after adjusting for differences in other lifestyle factors such as smoking and body mass index, most cohort studies show much weaker—or no—relation between overall fruit and vegetable consumption and risks of common cancers⁴⁻⁷. However, investigators have seen inverse relationships for renal cell¹¹ and estrogen receptor-negative breast cancer⁸. There may be some benefit for specific fruits or vegetables against specific cancers. For example, some evidence suggests that lycopene, mainly from tomato products, reduces risk of advanced prostate cancer^{9,10}.

In contrast, substantial epidemiologic evidence consistently supports a benefit of higher intake of fruit and vegetable consumption for cardiovascular disease¹¹. High intake of vegetables reduces blood

pressure¹²; the active factors remain unclear, but potassium is a likely contributor¹³. Other benefits of higher fruit and vegetable intake likely include lower risk of neural tube defects, the most common severe birth defect¹⁴, due to higher folic acid intake. Intake of the carotenoids lutein and zeaxanthin, which are high in green leafy vegetables, has been inversely related to risk of cataracts^{15,16}. The benefits of fruit do not necessarily extend in the same manner to juice. Juice typically contains less fiber, and because of the natural sugar content, and because large quantities can be consumed rapidly, it contributes to weight gain and glucose intolerance¹⁷.

Current Recommendations for a healthy diet

Information regarding optimal diets continues to evolve, and recommendations must be tempered by the recognition that information will always be incomplete. In particular, the long-term influence of diet in early life requires decades of study.

Although our data are evolving, we may draw some general conclusions, based on data from epidemiologic studies, trials, and metabolic and laboratory studies, which are unlikely to change substantially. **Fruits and vegetables are essential foods in a healthy diet, and their daily consumption is highly recommended across all dietary guidelines.**

COMPONENTS	IN ABUNDANCE/ HIGHLY RECOMMENDED	IN MODERATION	TO LIMIT/TO MINIMIZE
Fruits & Vegetables	More than five servings per day		
Grains	In a minimally refined, high-fiber form		Refined starches sugars Sugar-sweetened beverages
Dietary fats		In the form of nonhydrogenated plant oils	Butter/lard/fat from red meat <i>trans</i> - fatty acids from partially hydrogenated vegetable oils
Dairy products	<i>Calcium needs are higher for growing children, adolescents, and lactating women; supplements (including vitamin D) should be considered if dietary sources are low.</i>	Dairy products are not essential High consumption of milk (e.g., more than two servings per day) does not appear to be beneficial and may increase risk of prostate cancer.	
Red meat		<i>Healthy alternatives: nuts, legumes, poultry, and fish in moderation.</i>	Should be consumed only occasionally and in low amounts if at all
Salt			Salt intake should be kept low 1,500 mg per day for most people

What are the recommendations and where is the place of fruits and vegetables in a healthy diet?

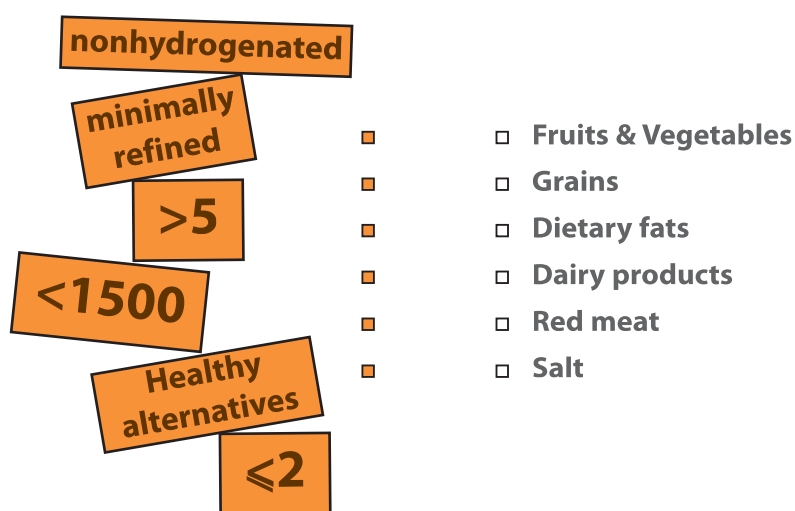
Other recommendations should be drawn:

- Fruit juice should be limited to not more than ~1 small glass per day.
- Moderate alcohol can be part of a healthy diet for those in whom it is not contraindicated (up to one drink per day for women and up to two for men).
- For most people, taking a daily RDA level (DV) multiple vitamins containing 1,000 to 2,000 IU of vitamin D provides a sensible nutritional safety net.

Physical activity must be also integrated in these recommendations for a healthy lifestyle. Staying lean and active throughout life

will have major health benefits. Because most people in developed countries work at sedentary jobs, weight control will usually require daily physical activity and some effort to avoid overconsumption of calories.

At the international level, institutions and governments have identified unhealthy diet and physical inactivity as important NCD risk factors. Priority concerns have included excessive intake of energy, saturated fats and trans fats, free sugars and salt, as well as low consumption of vegetables and fruits. **However, policies to promote F&V consumption by making them widely available and affordable have usually been inadequate.**



BASED ON:

Willett WC, Stampfer MJ. *Current evidence on healthy eating.* *Annu Rev Public Health.* 2013;34:77-95.

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NEW POLICY APPROACHES TO INCREASE FRESH FRUIT AND VEGETABLES CONSUMPTION

Food and nutrition experts urged European decision makers for a novel approach to agriculture and food policies as existing ones are currently inappropriate to translate the recognised beneficial assets of fruit and vegetables into effective consumption practice. A new policy focus would generate great economic gains in Europe, improve returns for the sector and create multiple benefits for the society as a whole. These are the main conclusions of a policy discussion which took place last week in Brussels.

Freshfel Europe (European Fresh Produce Association) and Aprifel (French Agency for Research and Information on Fruit and Vegetables) coordinated last week a policy discussion at the European Parliament. Hosted by Miss Anthea McIntyre MEP (rapporteur of « *The future of Europe's horticulture sector: strategies for growth* » report), the event gathered several members of the European Parliament, European Commission officials, experts in nutrition and health, as well as fresh produce representatives.

The benefits of consuming fruit and vegetables have long been recognised, and they are the only foods recommended as such in written dietary guidelines. Increasing the intake of fruit and vegetables is a crucial component of a healthy diet and plays a major role in the prevention and reduction of the major economic, societal and personal costs induced by non-communicable diseases (NCDs). Fruit and vegetable consumption, with other dietary improvements, benefits health and longevity, reduces the impact of socio-economic inequalities, lowers medical costs and is recognised by the World Bank and the European Office of the World Health Organisation (WHO) to be crucial for optimum economic growth in Europe.

Dr. Godfrey Xuerb (WHO) noted: « *It is alarming that in most EU Member States average fruit and vegetable consumption is below the minimum WHO recommendation of 400 g/day/person. Heads of State and Governments of the*

United Nations consider fruit and vegetable intake increase one of the challenges to be targeted by 2025 ».

Freshfel Annual Consumption monitor data shows that one piece of fruit or vegetable per day/person has been lost in the last decade. Philippe Henri, President of Freshfel stated: « *Under these circumstances, policy makers need to urgently join forces with scientists and the sector to reverse such a trend. New political and policy efforts need to be considered to foster prevention* ».

Professor Philip James (International Obesity Task Force) was also adamant: « *It is the perfect time to change the agriculture and food policies of Europe for economic benefits, and it is all the more important to do this in the current time of economic crises when diets are often deteriorating badly* ».

A multi-dimensional approach is needed to move from policy awareness of the widespread dietary deficiency to efficient strategies for the economic benefits of producers and other operators in the fresh produce chain. A number of market oriented policy initiatives were therefore suggested in areas such as nutrition, research and innovation, information and promotion policies. The meeting called upon the European Parliament to set up an expert group to drive the process under the next parliamentary legislation starting next June.

Miss McIntyre MEP concluded: « *This meeting was an excellent opportunity to raise important issues that have been highlighted in my report and which are so relevant for the fruit and vegetables sector. Fruit and vegetables account for 18% of the total value of agricultural production in the EU and are produced from only 3% of cultivated land. The sector is worth more than € 50 billion, with 80 million tons produced and distributed by 550,000 employees. I am delighted that my report could be a starting point for a wider debate across Europe to make sure that we can move with a holistic approach from awareness into action!* ».

