

Ana Catarina Pinto da Silva

Comparison of food guide recommendations from European countries

[Comparação das recomendações dos guias alimentares de países europeus]

Ciências da Nutrição

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Declaro para os devidos efeitos ter atuado com integridade na elaboração deste Trabalho de Projeto, atesto a originalidade do trabalho, confirmo que não incorri em plágio e que todas as frases que retirei de textos de outros autores foram devidamente citadas ou redigidas com outras palavras e devidamente referenciadas na bibliografia.

(Assinatura)

Ana Catarina Pinto da Silva

Trabalho apresentado à Universidade Fernando Pessoa como parte dos requisitos para obtenção do grau de licenciado em Ciências da Nutrição

Orientadora:

Professora Doutora Cláudia Silva

I. Dedicatória

Começo por agradecer à minha orientadora, Professora Doutora Cláudia Silva, pelo carinho com que me recebeu, a sua partilha de conhecimento e, acima de tudo, por toda a ajuda prestada e me fazer acreditar em mim nesta fase final do meu percurso académico.

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II. Índice

Introduction	4
Methodology.....	5
Results	6
a) The graphical representation.....	6
b) Number and composition of food groups	6
c) Health messages.....	11
d) Concern about sustainability	12
e) Physical activity messages.....	12
Discussion.....	Erro! Marcador não definido.
Conclusions	Erro! Marcador não definido.
Bibliography	Erro! Marcador não definido.

III. Lista de abreviaturas e símbolos

FBDG: Food-based Dietary Guidelines

WHO: World Health Organization

FAO: Food and Agricultural Organization

Comparison of food guide recommendations from European countries

[Comparação das recomendações dos guias alimentares de países europeus]

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IV. RESUMO

Objetivo: Comparar os guias alimentares de 18 países europeus: as suas semelhanças e diferenças.

Metodologia: A pesquisa foi realizada na procura de artigos no Pubmed bem como sites oficiais e políticos de cada país bem como de instituições como a WHO e FAO.

A informação recolhida foi analisada e comparada em diferentes parâmetros: o tipo de representação gráfica; número e composição dos grupos alimentares: fruta e hortícolas, carne e peixe, leguminosas e frutos secos, laticínios, gorduras e óleos, água e bebidas não alcoólicas; mensagens relacionadas com a saúde; sustentabilidade e atividade física.

A partir da informação recolhida, foram redigidas duas tabelas: a primeira com a descrição das recomendações alimentares e respetiva representação gráfica de cada país e a segunda tabela, trata-se de uma compilação das características de cada guia alimentar.

Resultados: Há recomendações alimentares em comum na Europa: comer uma boa porção fruta e hortícolas, reduzir o consumo de carne vermelha e incluir mais peixe como fonte proteica; manter uma boa hidratação; escolher cereais integrais e reduzir a ingestão de açúcar e sal. Contudo, há outros temas a abordar menos incluídos como a sustentabilidade e a prática de exercício físico, que começa a ser mencionada nos guias mais recentes.

Conclusão: A representação gráfica dos guias alimentares de França e Itália tem de ser desenvolvida, incluindo toda a informação pertinente para a população e é importante atualizar os guias alimentares já desenvolvidos no sentido de incluir a sustentabilidade e a prática de atividade física em mensagens simples de forma a alcançar um estilo de vida saudável.

Palavras-chave: Adultos; Alimentação; Guias Alimentares; Recomendações Alimentares; Nutrição

V. ABSTRACT

The aim of this work was to provide a concise and descriptive review of the most recent European FBDGs, assess the similarities and differences and mostly, compare the information of 18 European countries.

The data collected were reviewed and compared in different parameters: distinct graphical representations; number and composition of food groups: fruits and vegetables, fish and meat, legumes and nuts, cereals, milk and dairy, fats and oils, water and beverages; health messages; sustainability and physical activity.

The search was made in Pubmed and official and political websites such as FAO and WHO and with the selected data made Table 1 with the images of the food guides and key messages and Table 2 with the food guide characteristics.

The concordance recommendations are very similar in Europe: eat a good portion of fruits and vegetables, reduce the red meat and include more fish as a protein, stay hydrated, choose wholegrain cereals; reduce the sweet products and salt intake. However, there are other subjects less included and important: sustainability and physical activity, that are presented in the most recent food guides.

This way, we can conclude that France and Italy food guides must be launched including all the information and FBDGs must be updated and include Sustainability and Physical Activity orientations with simple messages in order to achieve a healthy lifestyle.

Keywords: Adults; Diet; Food-based Dietary Guidelines; Food Guide; Food recommendations; Nutrition

Introduction

Establishing food-based dietary guidelines (FBDGs) is a complex issue. International agencies and national authorities around the world, such as the Food and Agriculture Organization (FAO), the World Health Organization (WHO) and the ministries of health of each country, have the responsibility to develop tools/strategies to inform and educate, in food and nutrition terms, all the actors involved in the achievement of healthy eating (population, health professionals, educators and public policy makers)(1). FBDGs were conceived to provide general recommendations of what a population should eat in terms of foods rather than of nutrients. They should be written in easy-to-understand language, with simple food guide designs such as food pyramids, food plates, circles or other illustrations, adapted to the culture of each people and address public health concerns by providing a basic framework for use in planning meals or daily menus to achieve a healthy and balanced diet (1,2). Food and nutrition policy makers, planners, and common citizens need to be able to manage and make healthy food choices at the national, community and individual levels. FBDGs are generally developed with the expectation that they will help to improve the effectiveness of nutrition education efforts, directed both to the public and at the national level(1,2).

Food and nutrition play a key role in the prevention and treatment of some of the most common chronic non-communicable diseases such as obesity, cardiovascular diseases, diabetes, and some types of cancer. It is well known that these diseases derive, at least in part, from an inadequate intake of certain nutrients and micronutrients and the increased consumption of processed foods (added sugars, saturated fat or trans fatty acids, sodium chloride and energy-rich) (3–5). Nowadays, two contrasting nutrition-related conditions co-exist: undernutrition and micronutrient deficiencies due to an inadequate intake and that's why FBDGs are so important (4).

The causes of malnutrition are complex and multilayered, yet diet is one of the single most important contributors to malnutrition, which itself is influenced by many factors, from personal preferences to the broad national availability of foods (6,7).

FBDGs can serve to guide a wide range of food and nutrition, health, agriculture and nutrition education policies and programs; therefore, representing a unique opportunity to favorably impact diets and the food system, from production to consumption(2).

The aim of this study was to provide a concise and descriptive review of the most recent European FBDGs, assess the similarities and differences and mostly, compare the information (graphical representations, number and composition of food groups, health, sustainability and physical activity messages) of FBDGs from some European countries.

This comparison of FBDGs from these European countries could be interested, in future studies, to understand how such guidelines influence consumer behavior and, in some countries, also inform arrange of national food, nutrition and health policies or programs(8,9).

National FBDGs provide context-specific advice and principles on healthy diets and lifestyles, which are rooted on sound evidence, and respond to a country's public health and nutrition priorities, food production and consumption patterns, sociocultural influences, food composition data, and accessibility, among other factors (2).

Methodology

The searching was made on PubMed and official websites, for the most recent European FBDGs published in English, French, Portuguese and Spanish. Information was obtained for 18 of the European countries: Denmark, Finland, Iceland, Norway, Sweden, Italy, Greece, Malta, Portugal, Spain, Austria, Germany, Belgium, France, Ireland, Netherlands, Switzerland and United Kingdom. Small countries or states such as the Vatican, Liechtenstein, Andorra and Luxembourg were excluded, as were Eastern European countries due to the lack of information written in English. This work does not look at guidelines for specific population subgroups (e.g., young children, pregnant and breastfeeding women and the elderly). The research was restricted to recommendations for adults only.

The data collected were reviewed, updated and compared in different parameters: graphical representations, number and composition of food groups (including beverages

alcoholic and nonalcoholic and five-a-day: fruits and vegetables), health messages (decrease sugar, limit salt), sustainability (food waste and plant based) and physical activity (3,4). The main purpose is to assess the level and type of concordance and differences across countries' existing guidance on key elements of a healthy diet.

Results

We provide summaries of the key messages and graphics that are used to communicate national dietary guidance (Table 1).

Based on the analysis of the FBDGs, it was found that relatively:

A) The Graphical Representation

The graphical representations of the food guides vary between circles, pyramids and inverted pyramids, food plates and traffic light. From the 18 analyzed countries, 11 have a single food guide representation and 7 have at least 2 food guide representations. The French part of Belgium is the only **Inverted Pyramid**; 7 **Circles**: Iceland, Norway, Germany, Netherlands, United Kingdom, Malta and Portugal; 6 **Pyramids**: Finland, Austria, Ireland, Switzerland, Spain and Greece; 1 **Traffic Light**: Sweden; 1 **Flyer** or Pamphlet: Denmark. France and Italy don't have any graphical representation of their food recommendations.

As a complementing Food Guide, I mean, always accoupled with other representation, we have 4 Food Plates in Finland, Iceland, Switzerland and Spain.

Table 2 shows exactly each country information from their food guides: composition of food groups, health messages according to sugar and salt intake, physical activity prescription and sustainability concerns.

B) Number and Composition of Food Groups

The different representations present different number and composition of food groups and information accoupled.

The food guides with more food groups are the ones from French part of Belgium and Finland with 9 food groups and the ones with less division is the Traffic Light from Sweden that divides the information in three indicators.

Table 2 shows exactly each country information from their food guides: composition of food groups, health messages according to sugar and salt intake, physical activity prescription and sustainability concerns.

Fruits and Vegetables - All countries encourage consumption of fruit and vegetables and dedicate a prestigious space to this food group.

Table 1 shows how fruits and vegetables are represented in food guides. In most countries (58%) where it could be determined (exception for France and Italy that don't have food guides) fruits and vegetables are pictured as separate groups. However, in 42% they are grouped together. This distinction is somehow artificial, because, for example, in pyramid or inverted pyramid graphics, fruits and vegetables are side by side in one layer and, even in circle representations, we can see a single slice including them(7).

Besides the graphical representations, there are key messages explicitly recommending fruit and vegetables in different ways: they can be simple, suggesting the daily consumption or multidimensional: telling to eat this food every day, the recommended portion (400-500g/day or 5 pieces/day) and to prefer fresh, seasonal and locally produced.

The most common messages concerning fruit and vegetables are "Eat more/ plenty/ a lot of vegetables and fruit", "Eat at least 400 g of fruits and vegetables" or "Consume a variety of fruit and vegetables every day" or, in particular, some Nordic countries (Finland, Sweden and Norway) include, specifically, berries in the recommendation. Regarding the key message of 5' a day, 42% of the countries share this recommendation and, besides that, we still have a bigger recommendation from Ireland: 5-7 servings a day (Table 2)

WHO guidance is to eat at least 400 g (5 portions) of fruits and vegetables per day (10), so we can agree that all analyzed countries act in concordance with this premise.

Fish and Meat

All the compared countries contemplate fish and meat on their food guides, along with other protein sources such as eggs, beans, tofu or even, sometimes, complemented with dairy products in a single group.

We can see in food guides and there described messages to population that almost of the countries (except Germany, Flemish Belgium, Italy and Portugal) have a real concern in minimize the consumption of red and processed meat, taking action to prioritize white meat and encourage the consumption of fish, seafood, eggs, legumes and plant-based options like soya. Besides the small slices, portions or steps visualized at food guides, we have simple and enlightening messages:

- “Eat less meat – choose legumes and fish” (Denmark)
- “Choose lean meat and lean meat products. Limit the amount of processed meat and red meat you consume.” (Norway)
- “Do not eat more than 75-100g a day of meat, fish, eggs or products made with these foods.” (French Belgium)
- “Consume ... one portion of meat/fish/eggs/tofu per day. Alternate between these protein-rich foods.” (Switzerland)
- “Eat some beans, pulses, fish, eggs, meat and other proteins (including 2 portions of fish every week, one of which should be oily).” (United Kingdom)

Besides that, Nordic countries (except Norway) and France have a specific recommendation to limit the amount of red meat and meat products to <500g a week.

Legumes and Nuts

Legume, from the *Fabaceae* (or *Leguminosae*) botanical family, is the more inclusive classification for non-oil seed (pulse) and oil-seed crops (peanuts and soybeans) and includes both fresh and dried forms. Common types of legumes include dried beans, broad beans, peas, chickpeas, cowpeas, lentils, lupins, peanuts and soybeans. Abundant in various vitamins and minerals, including B vitamins, iron, magnesium, potassium and zinc, legumes are an economical source of dietary fiber, phytonutrients and protein important for plant-based or flexitarian dietary patterns. (8,11)

There are different terms used to define legumes along the food guides and key messages, such as “beans”, “pulses”, “lentils” or “chickpeas”.

According to the FAO, legumes are an important inclusion in the diet with known benefits for human and planetary health (2,11)

Besides all these benefits, remains forgotten this importance and only Finland, Norway, Ireland and Portugal dedicate this food in a single slice/step of their food guides. In the other countries food guides, legumes are represented with vegetables or meat and fish groups. However, they are specifically represented in some key messages:

- “Eat 5 servings of vegetables, legumes and fruits every day...” (Austria)
- “For general population, a healthy and sustainable diet should include: (...) Legumes, at least 4 servings a week.” (Spain)
- “Consume legumes frequently” (Greece)

Cereals

Except France and Italy, that doesn't have food guides, all of them possess cereals in their graphical representations, represented by different drawings of pasta, rice, porridge, bread and whole flour.

In what respects the key messages, all of countries has a clear recommendation:

- “Eat wholegrain foods.” (Denmark)
- “Eat wholegrain cereals several times a day. Prefer fibre-rich and low salt products. (Finland)
- “Consume mainly wholegrain products such as wholegrain bread, wholegrain pasta and brown rice” (Netherlands)

Milk and Dairy

Milk and dairy products are grouped in different ways: we see them by themselves, grouped with protein sources (meat, fish, eggs) or even shared with vegetables oils. In most of the countries, they are alone in a slice/ portion of the food guides and there is a recommendation shared by them: choose low-fat dairy products which includes milk, cheese and yoghurts.

Some of the key messages are:

- “Consume fat-free/ low fat milk products daily (5-6 dl/day) and two or three slices of low-fat cheese” (Finland)
- “Low fat dairy products without sugar” (Iceland)
- “Limit your daily consumption of cheese to one or two slices. Do not drink more than 3-4 glasses of skimmed or semi-skimmed milk or soy products (French Belgium)

Fats and Oils

We see fats and oils represented in all food guides and in key messages limiting the intake or even the quality of fats apart from limiting consumption. (7)

The WHO Healthy Diet Fact Sheet advises that “unsaturated fats (e.g., found in fish, avocado, nuts, sunflower, canola and olive oils) are preferable to saturated fats (e.g., found in fatty meat, butter, palm and coconut oil, cream, cheese, ghee and lard).”

The general recommendation is to use vegetable oils but, these key messages have concerning and more individual messages:

- “Use softer and healthier fats” (Iceland)
- “Choose cooking oils, liquid margarine and soft margarine over hard margarine and butter” (Norway)
- “Switch to healthier fat – choose healthy oils when cooking, such as rapeseed oil or liquid fats made from rapeseed oil, and healthy sandwich spreads.” (Sweden)
- “Choose health-promoting fats” (Germany)
- “Use olive oil as the main added fat” (Greece)

Water and Beverages

Water is essential for life. From the time that primeval species ventured from the oceans to live on land, a major key to survival has been the prevention of dehydration (12).

Fortunately, water is the most important drink and is contemplated in a big number of food guides, alone or with unsweetened beverages. There are different recommendations

in quantity, moment of drinking and measurement regard water, fluids (tea, coffee, ...) or beverages.

Besides that, we still have the discouragement of drinking alcohol and the association of that with the celebration of special moments. The key messages regarding this subject have an enormous variation from drink water when thirsty in Nordic countries to drink at least 1.5 liter-s or x cups of water and unsweetened beverages. Portugal considers wine as part of the population meals, except for children, adolescents, pregnant and lactating women and France advice to limit the consumption of alcohol, with a maximum of two glasses per day, not daily. Malta proceeds to triple orientations about this subject: moderate intake of alcohol, avoid energy drinks and drink plenty of water. All the other analyzed countries include water as essential in their key messages, here are some examples:

- “Thirsty? Drink water” (Denmark)
- “Step 1. Non-alcoholic beverages. Drink at least 1.5 liters of fluid, preferably low-energy drinks in the form of water, mineral water, unsweetened fruit or herbal teas or diluted fruit and vegetable juices. A daily moderate consumption of coffee, black tea (3-4 cups) and other caffeinated beverages is acceptable.” (Austria)
- “Drink abundant water every day” (Italy)
- “Drink 6-8 cups/glasses of fluid a day” (United Kingdom)

C) Health Messages

The most common messages related to health involve limiting salt, fat and sugar. All the countries have the written concern about decreasing the consumption of this food and processed meals. They can be general claiming to eat less sweet, salty, and fatty food to respect the proportion represented in the food guides or limit certain quantities. The salt has distinct orientations: passes from to reduce the consumption to specific portions: Portugal and Finland suggest low-salt products, not exceeding 5g/day and Netherlands recommends salt intake should be less than 6g/day. The French Belgium population has still the “use salt in moderation and replace it with iodized salt” as one of their key messages.

This type of food is always represented in the lower levels of food guides and are included as part of the meals, however as a special moment or a onetime weekly, not being essential to a healthy and complete lifestyle.

D) Concern About Sustainability

Nowadays the food production, supply and consumption chain represent a major cause of ecological pressure on the natural environment, and diet links worldwide human health with environmental sustainability (13).

Until now, only six countries have some key messages about sustainability, towards different ways: concerning about food waste, respect the seasonal agriculture, add more plant-based options to the diet and adequate a healthy food preparation based in these subjects.

Some of the messages are:

- “Eat plant rich, varied and not too much!” (Denmark)
- “The guidelines encourage the consumption of food with less environmental impact (fruits, vegetable, legumes), locally produced foods, seasonal foods and, if possible, organic foods and promote decrease the intake of animal products with high environmental impact.” (Spain)

E) Physical Activity Messages

The most recent FBDG’s considers physical activity as an important part of a healthy lifestyle, and it shows with this crescent importance.

Physical activity is seen side by side with healthy eating behaviors in Iceland, French Belgium and Spain. However, a lot of the messages respect this subject and recommend increasing the practice of sports or simply “fast walking and change the use of cars to running errands on foot” (France)

Discussion

It's important to work on update these FBDGs to reach the messages to all people: more or less educated. The food guides and messages are simple to read, with intuitive learnings with proportional slices/steps to the portions and food that should be ingested. The main goal is to offer many choices to a healthy diet and freedom to the European population.

The most recent FBDG is the Spanish and is the most complete because integrates all the subjects: a healthy diet divided with regular/moderated/occasional ingestion, physical activity prescription, sustainability concerning and an example of a healthy food plate as written in the complementary messages. The most complete FBDGs are the most recent, in general.

There isn't a concordance to the most educated population to the most specific information because as seen in Table 1, with all food guides, the Nordic countries (the most educated population) have different types of messages: simple or more specific.

It's important in the future review and analyze how the message is received from the population and which graphical representation is better received and learned: the food plate that represents the daily meal? The pyramid or inverted pyramid that includes more information and different food groups and conceives more options? Or a circle with proportional slices, including all group types?

Conclusions

The bigger question to answer is “What is a healthy diet?”(7)

There is considerable diversity in FBDGs as to how food groups are categorized and, in their messages, a various way to group their recommendations (4). Most FBDGs discuss healthy dietary patterns in terms of three to seven recommended food groups with the most common designations being fruits, vegetables, starchy staples, dairy, and protein foods. Each food group contributes a unique spectrum of nutrients and bioactive compounds to the diet (14). At the same time, each group alone cannot adequately supply all the necessary essential nutrients for optimal health. In short, food groups are complementary to each other, not equivalent (9).

Our diets connect political, personal and public health with global environmental sustainability. Imbalanced diets, such as ones low in fruits and vegetables, high in red and processed meat and providing excess energy intake, represent one of the biggest burdens globally and the chronic diseases related to unhealthy diets require costly treatment.(12,15).


It's crucial to develop food guides in France and Italy, including all the information and FBDGs must be updated and include Sustainability and Physical Activity orientations with simple messages in order to achieve a healthy lifestyle.

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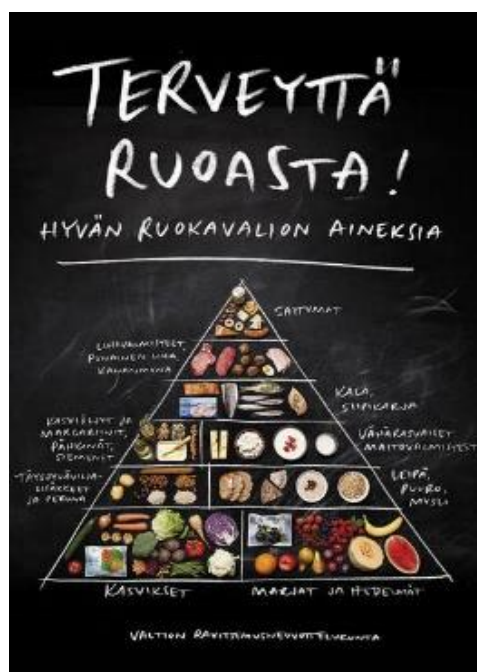
Annex 1

Table 1 – Food guides for adults and respective recommendations given to general public

Graphical representation	Main messages
<p style="text-align: center;">DENMARK Dash Veterinary and Food Administration (2021)</p> 	<p style="text-align: center;"><u>The Official Dietary Guidelines – Good for Health and Climate</u></p> <ul style="list-style-type: none"> ▪ Eat plant-rich, varied and not too much ▪ Eat more vegetables and fruit ▪ Eat less meat – choose legumes and fish ▪ Eat wholegrain foods ▪ Choose vegetable oils and low-fat dairy products ▪ Eat less sweet, salty and fatty food ▪ Thirsty? Drink water

FINLAND

National Nutrition Council (2014)



Finnish nutrition recommendations

- Eat vegetables, fruits and berries frequently (a minimum of 500 g/day, excluding potatoes).
- Eat wholegrain cereals (bread, porridge, pasta, etc.) several times a day. Prefer fibre-rich and low-salt products. Avoid products made of refined flour with plenty of hard fat and sugar.
- Use soft vegetable oil-based spreads on bread and vegetable oils in cooking and salads.
- Eat fish (of different kinds) two to three times a week.
- When eating meat, choose low-fat, low-salt products and limit the amount of red meat and meat products to < 500 g a week.
- Consume fat-free/low-fat milk products daily (5–6 dl/day) and two or three slices of low-fat cheese.
- Drink water when you are thirsty. Decrease consumption of soft drinks and sweet juices.
- Use low-salt products (salt intake should be < 5 g/day).
- Undertake moderate physical activity (brisk walking) for at least 150 minutes a week or hard physical activity (running) for 75 minutes a week.
- In addition, eat regularly. Read and learn to understand product labels.

ICELAND

Directorate of Health and Academia
(2014)



Food-based dietary guidelines for adults (and children from two years of age)

- Focus on the whole diet
- Variety of foods in reasonable quantity
- Fruits and a lot of vegetables (5 portions a day, at least half of it should be vegetables, fruit juice not included)
- Whole grain products, at least twice a day
- Fish two to three times a week (desirable to have one of the fish meal fatty fish)
- Meat in moderation (limit the consumption of red meat to 500 grams per week, especially limit the consumption of processed meat)
- Low fat dairy products without sugar (2 portions a day)
- Softer and healthier fats
- Less salt
- Less added sugar
- Vitamin D (Vitamin D supplement, cod liver oil or vitamin –D tablets, is recommended at least during winter time)

NORWAY

Directorate of Health
(2014)

Norwegian guidelines on diet, nutrition and physical activity



SWEDEN

*National Food Agency
(2015)*

- Have a varied diet with plenty of vegetables, fruit and berries, wholegrain products and fish, and limited amounts of processed meat, red meat, salt and sugar.
- Find the right balance between how much energy you consume through food and drink and how much energy you use by being physically active.
- Eat at least five portions of vegetables, fruits and berries each day.
- Eat wholegrain products every day.
- Eat fish for dinner two to three times a week. Fish is also a great filling in sandwiches.
- Choose lean meat and lean meat products. Limit the amount of processed meat and red meat you consume.
- Include lean dairy products as part of your daily diet.
- Choose cooking oils, liquid margarine and soft margarine over hard margarine and butter.
- Choose foods with a low salt content and limit the use of salt when preparing food.
- Limit your consumption of food and drink with a high sugar content.
- Choose water as a thirst quencher.
- Engage in physical activity for at least 30 minutes each day.

Find your way to eat greener, not too much and be active!

- More vegetables and fruit - Eat lots of fruit, vegetables and berries! Ideally, choose high fibre vegs such as root vegetables, cabbage, cauliflower, broccoli, beans and onions.

MORE

Vegetables, fruit and berries
fish and shellfish
nuts and seeds
exercise



SWITCH TO

wholegrain
healthy fats
low-fat dairy products



LESS

red and processed meat
salt
sugar
alcohol



- More seafood - Eat fish and shellfish two to three times a week. Vary your intake of fatty and low-fat varieties, and choose eco labelled seafood.
- More exercise - Exercise for at least 30 minutes every day! Take brisk walks, for example, and reduce the amount of time you sit still by taking brief, active breaks.
- Switch to wholemeal - Choose wholegrain varieties when you eat pasta, bread, grain and rice.
- Switch to healthier fat - Choose healthy oils when cooking, such as rapeseed oil or liquid fats made from rapeseed oil, and healthy sandwich spreads. Look for the Keyhole symbol.
- Switch to low-fat dairy products - Choose low-fat, unsweetened products enriched with vitamin D.
- Less red and processed meat - Eat less red and processed meat, no more than 500 grams a week. Only a small amount of this should be processed meat.
- Less salt - Choose food with less salt. Use less salt when you cook but choose salt with iodine when you do use it.
- Less sugar - Hold back on the sweets, pastries, ice creams and other products containing lots of sugar. Cut back on sweet drinks in particular.
- Maintain a balance - Try to maintain energy balance by eating just the right amount.
- The Keyhole - healthy choices made easy - Check for the Keyhole symbol. This is a National Food Agency symbol which can help you to find food containing less sugar and salt, more wholegrain and fibre and healthier or less fat.

AUSTRIA

Ministry of Health, Agency for Health and Food Safety, the
National Commission and the Austrian Nutrition Society
(2010)



The Austrian food pyramid – 7 steps to health

- Step 1. Non-alcoholic beverages. Drink at least 1.5 litres of fluid, preferably low-energy drinks in the form of water, mineral water, unsweetened fruit or herbal teas or diluted fruit and vegetable juices. A daily moderate consumption of coffee, black tea (3–4 cups) and other caffeinated beverages is acceptable.
- Step 2. Vegetables, legumes and fruits. Eat five servings of vegetables, legumes and fruits every day. The ideal would be to eat three servings of vegetables and/or legumes and two servings of fruit (one serving = one clenched fist). Eat vegetables partly raw and consider seasonal and regional availability when selecting fruits and vegetables.
- Step 3. Cereals and potatoes. Eat four servings of grains, breads, pasta, rice or potatoes a day (five servings for active athletes and children). Prefer wholegrain products.
- Step 4. Milk and dairy products. Eat three servings of milk and dairy products every day. Prefer low-fat versions.
- Step 5. Fish, meat, sausages and eggs. Eat at least one or two servings of fish (150 g) a week. Prefer high-fat fish such as mackerel, salmon, tuna and herring or local cold water fish such as river trout. Eat up to three servings of lean meat or low-fat sausages a week (300–450 g). Eat red meat (such as beef, pork and lamb) and sausages in moderation. Eat up to 3 eggs a week.
- Step 6. Fats and oils. Consume 1–2 tablespoons of vegetable oils, nuts or seeds daily. High-quality vegetable oils (like olive, canola, walnut, soybean, flax, sesame, corn, sunflower, pumpkin seed and grape seed oil),

GERMANY

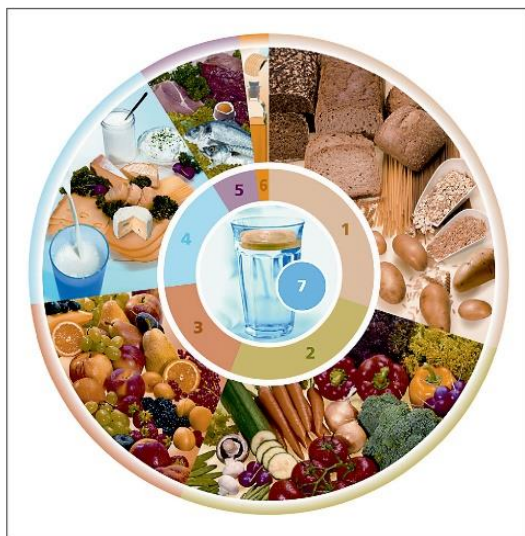
*Nutrition Society and Ministries of Health and Agriculture
(2017)*

as well as nuts and seeds, contain valuable fatty acids and can be consumed every day in moderate amounts (1–2 tablespoons). Use baking and frying fats such as butter, margarine or lard and high-fat dairy products such as whipped cream, sour cream and crème fraîche sparingly.

- Step 7. Processed foods high in fat, sugar and salt. Some processed foods (such as sweets, pastries, fast food products, snacks and soft drinks) are high in fat, sugar and salt and are less desirable nutritionally. They should be consumed sparingly – a maximum of one small serving a day. Try to use herbs and spices instead of salt. Avoid highly salted foods such as pickled vegetables, salted nuts, sauces, etc.

Ten guidelines of the German Nutrition Society for a wholesome diet

- 1. Enjoy food diversity
- 2. Vegetables and fruit – take ‘5 a day’
- 3. Favour whole-grain foods
- 4. Complete the choice with animal-based foods
- 5. Choose health-promoting fats
- 6. Reduce sugar and salt intake
- 7. Water is the best choice
- 8. Prepare carefully cooked dishes
- 9. Mindful eating and enjoying
- 10. Watch your weight and stay active



FLEMISH BELGIUM

Superior Health Council College (2019)



Practical guidelines for healthy eating

- Make foods derived from plants the basis of every meal
- Limit your intake of animal products
- Drink water
- Choose as few ultraprocessed products as possible
- Vary your diet and look for alternatives
- Eat at set times and together with others
- Eat consciously and with moderation
- Adapt your environment
- Work step by step
- Enjoy what you eat!

FRENCH BELGIUM
Superior Health Council College (2019)



FRANCE
High Council of Public Health
(2019)

without graphical representation

Practical guidelines for healthy eating

- Eat at least 400 g of fruits and vegetables every day ensuring an equal distribution between the two.
- Limit the amount of spreadable fat used on bread or when preparing meals. Do not eat more than 75–100 g a day of meat, fish, eggs or products made with these foods. Limit your daily consumption of cheese to one or two slices. Do not drink more than 3–4 glasses of skimmed or semi-skimmed milk or soy products.
- Use good fats, such as unsaturated fatty acids (olive oil), omega-6 (sunflower oil and soya oil) and omega-3 (canola oil, nut oil and soya oil and fatty fish).
- Choose carbohydrates and fibre-rich foods, such as baked potatoes (3–5 portions), wholemeal pasta and rice, brown bread and cereals.
- Reduce the consumption of energy-dense foods high in sugars, such as pastries, sweets, soft drinks, alcohol, etc.
- Use salt in moderation and replace it with iodized salt.
- Drink at least 1.5 litres of water every day (water, coffee, tea, etc.).

The French National Nutrition and Health Program's dietary guidelines

The guide recommends increasing:

- the consumption of fruits and vegetables, regardless of their forms (raw, cooked, natural, prepared, fresh, frozen or canned), to achieve at least 5

servings of fruits and vegetables per day, and a small handful of unsalted nuts per day

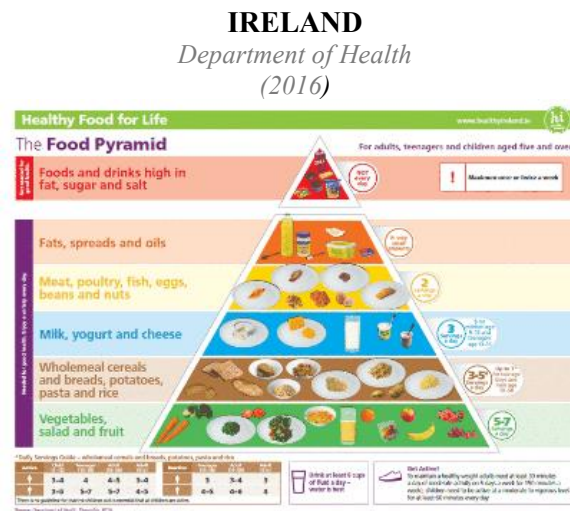
- the consumption of pulses (beans, lentils, chickpeas, etc), at least twice a week
- meals prepared at home
- physical activity to achieve at least the equivalent of 30 minutes of fast walking per day (take the stairs, running errands on foot, etc).

The guide recommends moving towards:

- organic foods, seasonal and locally produced foods
- starchy foods (pasta, bread, rice, semolina, potatoes), which can be eaten every day, by favouring complete starchy foods
- fish, twice a week including one oily fish (sardines, mackerel, herring, salmon)
- rapeseed, walnut and olive oils (the added fats - oil, butter and margarine - can be consumed every day in small quantities)
- dairy products (milk, yoghurt, cheese and cottage cheese), 2 per day for adults.

The guide recommends limiting:

- the consumption of meats, while favouring poultry and limiting other meats (pork, beef, veal, mutton, lamb, offal) to 500 g per week
- the consumption of processed meat, to 150 g per week
- the consumption of salty products and salt (to 5 g per day for an adult)
- the consumption of sweetened beverages, fatty, sweet, salty and ultra-processed foods



- the consumption of products with a Nutri-Score “D” or “E”
- the consumption of alcohol, with a maximum of two glasses per day and not every day
- time spent sitting: take the time to walk a little every 2 hours. Pay attention to the time spent on screens.

Healthy Food for Life – the Healthy Eating Guidelines

- Limit high fat, sugar and salt foods from the top shelf of the Pyramid to no more than once or twice a week
- Eat more fruit and vegetables, at least 5 to 7 servings a day
- Use the Pyramid as a guide for serving sizes and remember that portion size matters

Food-based dietary guidelines for the Netherlands

- Eat lots of fruit and vegetables
- Consume mainly wholegrain products such as wholegrain bread, wholegrain pasta and brown rice



- Eat less meat and more plant-based foods, and vary with fish, pulses, nuts, eggs and vegetarian products
- Consume daily sufficient dairy products such as milk, yoghurt and cheese
- Eat a handful of unsalted nuts daily
- Consume soft and liquid spreadable fats and cooking fats
- Drink sufficient amounts of tap water, tea and coffee
- Limit consumption of processed meat
- Minimize consumption of sugar-containing beverages
- Don't drink alcohol or no more than one glass daily
- Limit salt intake to 6 grams daily
- Nutrient supplements are not needed, except for specific groups for which supplementation applies.

SWITZERLAND

Swiss Society for Nutrition and Federal Office of Public Health
(2011)



The Swiss food pyramid

- Consume sweets, salty snacks and alcohol in small quantities.
- Use oils and nuts in small quantities daily, and butter/margarine sparingly.
- Consume three portions of dairy products and also one portion of meat/fish/eggs/tofu per day. Alternate between these protein-rich foods.
- Consume three portions of grains, potatoes and pulses per day. Grains should preferably be wholegrain.
- Consume five portions of fruits and vegetables per day; at least three portions should be vegetables and two fruits.
- Drink 1–2 litres of unsweetened beverages per day, preferably water.

UNITED KINGDOM

Public Health (England), Food Standards (Scotland),
The Welsh Government and Food Standards Agency
(2016)



SPAIN

Spanish Agency for Food Safety and Nutrition (AESAN) and
Ministry of Consumer's Affairs
(2022)

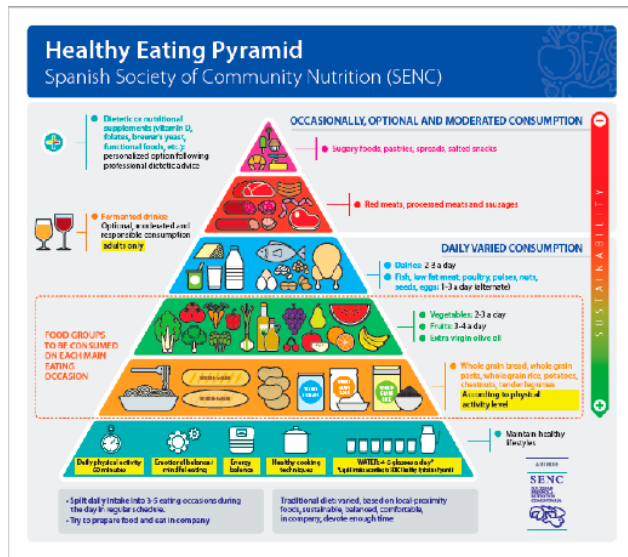
Eatwell Guide

- Eat at least 5 portions of a variety of fruit and vegetables every day.
- Base meals on potatoes, bread, rice, pasta or other starchy carbohydrates; choosing wholegrain versions where possible.
- Have some dairy or dairy alternatives (such as soya drinks); choosing lower fat and lower sugar options.
- Eat some beans, pulses, fish, eggs, meat and other proteins (including 2 portions of fish every week, one of which should be oily).
- Choose unsaturated oils and spreads and eat in small amounts
- Drink 6-8 cups/glasses of fluid a day.
- If consuming foods and drinks high in fat, salt or sugar, have these less often and in small amounts.

Healthy and sustainable dietary recommendations complemented with physical activity recommendations for the Spanish population

For the general population, a healthy and sustainable diet should include:

- Fruits and vegetable, minimum of 5 servings a day.
- Cereals (whole grain), 3-6 servings a day.



- Legumes, at least 4 servings a week.
- Nuts, consume 3 or more servings a week.
- Fish, 3 servings a week, better if blue fish.
- Eggs, maximum of 4 medium-sized per week.
- Milk and dairy products, 3 servings a day, without added sugars and with low salt content.
- Meat, maximum of 3 servings per week, prioritising the consumption of white meat and minimising the consumption of processed meat.
- Olive oil in all meals.
- Tap water as the drink of choice.

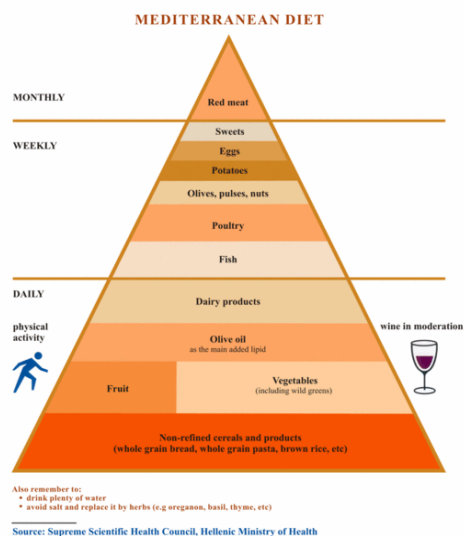
For the general population, a healthy and sustainable diet should reduce and even avoid:

- Processed foods high in sugars, fats and salt.
- Butter and other saturated fats.
- Salt.
- Sugary and sweetened beverages.

The guidelines encourage the consumption of food with less environmental impact (fruits, vegetable, legumes), locally produced foods, seasonal foods and, if possible, organic foods and promote decrease the intake of animal products with high environmental impact.

GREECE
Ministry of Health
(2014)

National Nutrition Guide for Greek Adults



ITALY

CREA Food and Nutrition Research Centre
(2018)

without graphical representation

- Consume a variety of fruit and vegetables every day.
- Consume a variety of cereals every day. Prefer whole grain products.
- Prefer low-fat dairy products.
- Limit red meat consumption. Choose lean cuts. Avoid processed meat.
- Consume fish and seafood frequently. Choose small fatty fish.
- Consume legumes frequently.
- Use olive oil as the main added fat.
- Limit salt and added sugar intake.
- Be physically active every day. Maintain a healthy body weight.
- Drink plenty of water.

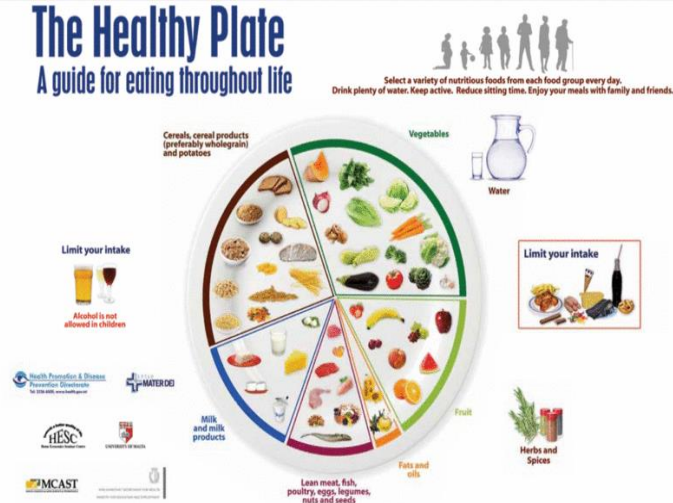
Dietary Guidelines for Healthy Eating– Revision 2018

- Keep your weight under control and always be active
- Eat more fruits and vegetables
- Eat whole grain and legumes
- Drink abundant water every day
- Fats: select which ones and limit the quantity
- Sugar, sweets and sugar sweetened beverages: less is better
- Salt: less is better (but iodised)
- Alcoholic beverages: the least possible
- Enjoy a variety of food choices
- Follow special recommendations for target groups
- Be careful of dieting and misuse of dietary supplements

MALTA

Food and Nutrition Policy and Action Plan for Malta
(2016)

The Healthy Plate A guide for eating throughout life



- Food safety depends also on you
- Select a sustainable diet

The healthy plate: Dietary guidelines for Maltese adults

1. Select a wide variety of nutritious foods from each of the six food groups every day
 - Choose nutritious foods from each of the six food groups.
 - Always check food labels when shopping for food. Choose food products that contain the least amount of salt, sugar, saturated and trans fats (found in hydrogenated or partially hydrogenated vegetables oils/fat).
 - Use cooking methods such as steaming, baking, boiling, grilling or microwaving rather than frying.
 - Store cooked food appropriately.
2. Limit the consumption of these types of foods: Saturated and trans fat, sugars and salt
 - Avoid adding salt to your food during cooking or at the table.
 - Limit the consumption of ready-made foods containing high amounts of added sugar, salt/sodium; saturated and hydrogenated or partially-hydrogenated (trans) fats. Remember, the higher the ingredient(s) is in the ingredients list, the larger its amounts in the food product.
 - Limit consumption of sweets, sugar and fat-rich desserts, ice-cream, cakes, pastries, spreads and other confectionaries. Eat on an occasional basis and as part of the main meal.
 - Avoid adding sugar to your tea or coffee.

- Limit the consumption of processed meat.
- 3. Wine and alcohol
- Moderate your intake of alcohol, if you choose to drink alcohol.
- Avoid drinking completely if you are pregnant or breastfeeding, or if advised by your medical doctor.
- Avoid drinking completely if you are driving or operating machinery.
- Energy drinks
- Avoid energy drinks
- Drink plenty of water
- Choose plain water as your beverage as often as possible.
- Drink adequate amounts (1.5 to 2.0 litres) of fluids, especially water, each day.
- Avoid soft and sweetened drinks especially in children.
- Increase your water intake in hot weather and with increased activity.
- Sugar-free herbal infusions or low-fat, low-salt broths are good alternatives to water.
- 4. Keep active
- Be active each day. Engage in at least 30 minutes of moderate intensity physical activity, such as brisk walking, swimming and cycling, on most days of the week.
- Be active for longer periods of time if you need to reduce weight or maintain a healthy weight for life.
- Reduce the time spent in sedentary activities, such as watching TV, using social media and computer games.

Consult your medical doctor before starting any type of intense physical activity; especially if you have a history of health problems.

PORTUGAL

Faculty of Food Sciences and Nutrition from the University of Porto, Portuguese Consumer's Institute, the National Council for Food and Nutrition and the Portuguese Ministry of Health (2003)



Food wheel guide

- Eat well, live better!
- Eat foods from each food group every day to have a complete diet.
- Eat more from the bigger segments and less from the smaller ones to maintain a correct balance.
- Eat a variety of foods within each food group; vary them daily, weekly and seasonally.
- Prefer water to beverages containing added sugar, alcohol and caffeine.
- Alcoholic beverages are not recommended for children, adolescents, pregnant and lactating women.
- Limit consumption of products with high sugar content to special occasions. Read food labels to identify products with the lowest amounts!
- Limit consumption of salt to less than 5g a day. Moderate consumption of foods and food products high in salt such as cold meats, canned foods, chips and salty snacks.
- Do moderate physical activity regularly.

Comparison of food guide recommendations from European countries

Table 2 - Comparison of the FBDGs information

Country	Last publication	Type of Food Guide	Food Groups										Beverages		Water	Health Recomend.		Sustainability		Physical Activity
			Vegetables (V)	Fruits (F)	V & F	Meat/Fish	Pulses	Nuts	Cereals	Fats and Oils	Milk/ Dairy	Sugar & Salt	A	N-A		Salt	Sugar	Plant Based	Food Waste	
Denmark	2021	C			✓	✓	✓		✓	✓	✓				✓		✓	✓		
Finland	2014	P + FP	✓	✓		✓	✓		✓	✓	✓	✓			✓	<5g	✓			
Iceland	2014	C + FP	✓	✓		✓		✓	✓	✓	✓	✓			✓		✓		✓	
Norway	2014	C			✓	✓	✓	✓	✓	✓	✓				✓		✓		✓	
Sweden	2015	T			✓	✓			✓	✓	✓				✓		✓		✓	
Austria	2015	P			✓	✓			✓	✓	✓	✓			✓		✓			
Germany	2017	C + 3DP	✓	✓		✓			✓	✓	✓				✓		✓		✓	
Flemish Belgium	2017	FT + EC			✓	✓	✓	✓	✓	✓	✓	✓			✓		✓			
French Belgium	2020	P	✓	✓		✓		✓	✓	✓	✓	✓			✓	IS	✓		✓	
France	2019	-			✓	✓	✓		✓	✓	✓	✓	✓		✓		✓		✓	
Ireland	2016	P			✓			✓	✓	✓	✓	✓			✓		✓		✓	
Netherlands	2016	C			✓	✓	✓	✓	✓	✓	✓	✓			✓	<6g		✓		
Switzerland	2011	P + FP			✓	✓		✓	✓	✓	✓	✓			✓		✓	✓		
UK	2016	C			✓	✓			✓	✓	✓	✓			✓		✓			
Spain	2022	P + FP			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
Greece	2014	P	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	
Italy	2018	-			✓				✓	✓	✓	✓	✓	✓	✓	IS		✓	✓	
Malta	2016	C	✓	✓		✓			✓	✓	✓	✓			✓		✓		✓	
Portugal	2003	P	✓	✓		✓	✓		✓	✓	✓	✓			✓	<5g	✓		✓	

Meat and Fish in separate food groups

Messages, not in food guide

IS= IODIZED SALT

✓ vegetal protein

Nuts and Oils

✓ Red and processed meats and sausages in a different food group (less incidence)

✓ Olive oil as the main added lipid