Food For Fitness

Recommendations for a healthy diet

Carbohydrates

Carbohydrates (CH) are our primary source of energy and it is recommended that they supply 60% of our daily caloric intake.

Carbohydrates comprise fibre, starch and sugars. They can thus be found mainly in fruits, cereals (bread, pasta), rice and couscous – and obviously in pastries, sweets and sugary drinks (coke, lemonade, ice tea, grenadine…).

Our body digests sugars prior to them entering the blood stream. There are two types of sugars. On the one hand, we have sugars that are easily digested. These include all those sugars that have a sweet taste as well as refined cereals such as white flour and white rice. These sugars rapidly and significantly increase our blood sugar levels and are said to have a high glycaemic index. High glycaemia in turn triggers insulin levels to spike, causing sugars to be transformed into fat and resulting in cravings leading us to consume more food!

On the other hand, we have sugars that are slowly digested, as found in wholemeal cereals, couscous, millet grain, bulgur wheat, etc. The sugars found in fruits, despite having a sweet taste, are also slow-acting, with their digestion delayed by the fibres present in large quantities in fruits. They are said to have a low glycaemic index, increasing our blood sugar levels more steadily and slowly. They do not result in fat storage nor do they trigger hunger cravings.

We must give preference in our diet to the slow-acting sugars with a low glycaemic index. Numerous studies have shown these sugars to aid in the prevention of cardiovascular disease and diabetes. It is therefore important to replace white bread, regular pasta and white rice with wholemeal bread, wholemeal or wholegrain pasta and wholegrain rice. At the same, we must drop anything sweet from our menu (with the exception of fruits), as well as potatoes, which have a very high glycaemic index.

You can find a list of glycaemic index values for different foods on www.glycemicindex.com of the University of Sydney.

Editor: Dr Patrizia Thiry

Fats

One must eat to live …

Fats or lipids are our second most important source of energy. It is recommended that they supply 25-30% of our daily caloric intake. The various types of fats must also be distinguished according to their origins.

For a long time, fats were accused of being responsible for the onset of obesity and were also considered the leading culprit behind cardiovascular disease.

According to the latest studies, however, the causal factor in obesity is not so much a high fat diet as the consumption of sugars with a high glycaemic index. These sugars trigger the release of insulin, which is the hormone responsible for storing energy in our cells. The energy is stored as fat. A diet high in rapidly absorbed sugars thus encourages weight gain. It is the combination of fats and rapidly absorbed sugars that constitutes the causal factor in obesity. Foods such as potato crisps and the like are true caloric bombs since they combine potatoes, which have a high glycaemic index, with a significant frying fat content!

As far as cardiovascular disease is concerned, not all fats are equal. As such, there are lipids that protect the cardiovascular system as well as others that damage it.

"Healthy" lipids include:

-olive oil, the consumption of which is clearly proven to reduce cardiovascular risk;

-nut oils, colza oil and soya oil containing polyunsaturated fats with a protective effect on blood vessels;

-fish oil, rich in omega 3 fatty acids, which have anti-aggregant and anti-inflammatory properties.

Consequently, not all oils are the same. Get into the habit of cooking with one of the above oils and banish fried food from your menu. Fried fats are denatured, not easily digestible and agglutinate on the vascular walls. In addition, they can contain carcinogenic substances due to their heat-induced denaturation.

It is best also to eliminate butter and other animal fats (cream, bacon, sausages, fatty meats, etc.) from your diet. In fact they contain saturated fatty acids, which are very damaging for the cardiovascular system.

Be wary of margarines too. Often these are liquid vegetable oils that have been solidified by a heat process. During this process, unsaturated fatty acids are denatured into trans fats (a particular chemical structure), which are highly damaging to vessels and responsible for atherosclerosis.

In summary:

-give preference to untreated vegetable oils

-avoid animal fats as much as possible

-be mindful when buying margarine and purchase only those brands that are certified to contain less than 1% trans fast

-avoid buying ready-made meals, which most often contain a high level of harmful fats and rapid-absorption sugars

-do not indulge in industrial pastries, which most often contain solidified vegetable oils

-regularly eat oily fish (salmon, mackerel, sardines, tuna), rich in omega 3.

Proteins

… not live to eat.

Proteins form the basis for our muscles and our immune defences and act as hormone precursors. It is recommended that they constitute 10-15% of our daily caloric intake.

Proteins are the third important category of nutrients. Proteins contain amino acids, necessary for the body to build up:

-muscles

-antibodies responsible for our immune defences.

In addition, amino acids are the precursors for numerous hormones and often act as enzyme cofactors. Certain amino acids are qualified essential amino acids, because our body is incapable of synthesising them and we have to rely on their external intake to prevent nutritional deficiencies from developing.

The key element in the consumption of proteins is the "package" in which they come. Proteins can, for instance, be consumed in the form of a hamburger or an ice cream. At the same time, however, quite a bit of animal fat and sugar will have been ingested! It is best, therefore, if we get our proteins from a lean steak or fish, or else a low-fat yoghurt with fresh fruit.

There are also vegetable protein sources:

-legumes: lentils, beans, flageolets

-all types of nuts

-soya

While these vegetables can fulfil our daily protein requirement, they are often very low in essential amino acids. It is thus best to combine them with low-fat or skimmed dairy products.

In summary:

-consume a daily protein amount of 1.2 – 1.8 g/kg of body weight

-use above all protein sources that are low in fat, such as lean meat, poultry, fish, nuts, legumes, soya

-consume only low-fat or skimmed dairy products to minimise your intake of saturated fat, as well as non-sugar products to avoid insulin peaks.

There are three major classes of nutrients:

- Carbohydrates, number one source of energy and largely responsible for the increase in obesity and diabetes in our society. To lead a healthy life, the intake of so-called refined sugars and starches should be reduced as much as possible and cereals should be consumed in their most natural form.
- Lipids or fats, which are the main constituents of our cellular membranes and responsible for a significant number of cardiovascular diseases. It is the quality, rather than the quality, of the fat that is significant. Vegetable and fish oils are recommended, while animal fat should be kept to a minimum.
- Proteins are building blocks rather than suppliers of energy. The "package" is what counts when consuming proteins: most recommended are lean meat, skimmed or low-fat dairy products with no added sugar and vegetable protein sources.

Key considerations

The essentials

Fruits and vegetables

Fruits and vegetables provide us above all with fibre, trace elements and vitamins. In addition, they contain hundreds of colouring and fragrant substances, essential oils, aromas and other substances that possess antioxidant properties and help prevent cancer.

No vitamin supplement is able to replace all the substances contained in a single apple.

Dairy products

The consumption of dairy products is above all important for the intake of calcium and vitamin D, both crucial for the prevention of osteoporosis. Nonetheless, care must be taken to choose the most low-fat products with the least added sugar.

Physical exercise

The issue is not about taking part in the next marathon. A one-hour walk a day is enough to increase your base metabolism, improve your physical condition and prevent cardiovascular disease and osteoporosis. Ideally, three times a week you should engage in an endurance workout of half an hour, such as jogging, cycling or swimming, three times a week, followed by 20 minutes of muscle workout, using an elastic band or two small barbells to stay in good physical shape. The human body was not made to stay sedentary all day long: its skeleton demineralises, its muscles atrophy and its morale drops to zero. Physical exercise, on the other hand, calcifies the skeleton, tones muscles and increases the release of neurotransmitters that have a euphoric effect. All the more reason to move!

Weight control

In the United States, obesity has become public health problem number one! Excess weight and the diseases directly linked to it (diabetes, hypertension, cardiovascular disease, osteoarthritis of the knee, disc hernias, etc.) make up a third of public health expenditure. Here in Europe, one in six children aged between six and 12 is obese, this being an upwards increasing trend. Weight control has therefore become a public issue.

Limiting caloric intake in a consumer society of material abundance is no easy task, even more so because the temptation to eat is omnipresent: popcorn at the cinema, ice creams at the swimming pool, chocolate bars from the vending machine at work, soft drinks at school, crepes at the supermarket, sugared snacks for those "little twinges of hunger", biscuits accompanying the cup of coffee at the pub, a bowl of chips while drinking a beer outside a café, sweets at the checkout counter… Who needs that much food? Above all, who needs that much food of such high caloric content and such low nutritional value? Do we really need super-sized hamburgers, one-litre coke glasses, "all you can eat" buffets?

Let's take a moment to think about what we eat – our body will thank us for it!

The original food pyramid

A powerful icon benefiting the United States agriculture

During the 1990s, the USDA (United States Department of Agriculture) unveiled what was to become a powerful icon: the food pyramid. In a flash, this icon was capable of showing the recommended food categories and their advocated proportions. It subsequently often featured on food packaging, in brochures, as well as in education and the media.

Unfortunately, this powerful tool revealed itself to be flawed over the years. Based on scant and poorly documented scientific evidence, the pyramid had been designed by the department of the American government in charge not of health, but of … promoting agriculture. It was therefore aimed more at promoting the cornerstone of American agriculture, i.e. red meat, dairy products and wheat.

By its very shape, the pyramid offered an immediate suggestion as to which food categories should be consumed in large quantities (base of the pyramid) and which should be avoided at all cost (peak of the pyramid).

It contained the following elements:

-carbohydrates

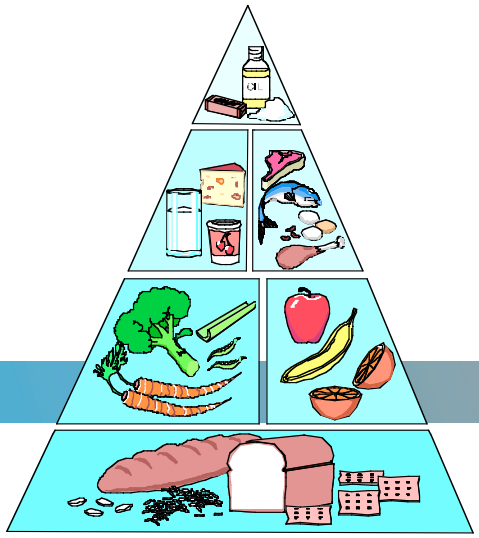
Bread, rice and pasta provided the nutritional basis. The idea was that if people ate a lot of carbohydrates, they would be less likely to consume fats, maligned in 1992 as the source of all evil. In recent years, however, nutritional studies have shown that not all fats are "bad" and that not all carbohydrates are "good". A distinction must therefore be made!

-fruits and vegetables

A healthy diet cannot bypass fruits and vegetables. If there is one proven fact of nutrition, it is that the consumption of large quantities of fruits and vegetables reduces the risk of cancer and cardiovascular disease. The recommended quantity consisted of five portions a day. This should not be a target, however, but a minimum! As we will see further on, the more fruits and vegetables are eaten to the disadvantage of the rest of the pyramid, the better.

-meat, poultry, fish, eggs, nuts and legumes

The above were all thrown together into the protein group. The fact is, however, that some of these nutrients are healthier than others. Minced beef, for instance, cannot be recommended in the same way as fish! It seems to have been "overlooked" that most red meat contains quantities of so-called saturated fat, which is the most harmful for our cardiovascular system since it clogs up our arteries. Similarly, red meat can also not be compared to fish (in particular salmon, tuna and mackerel), which is rich in omega 3 and contributes to lowering our cholesterol levels. Nuts were criticised, since they contain a lot of fat and, at the time, fat was deemed the bane of nutrition. Nuts, however, contain essential oils, as well as minerals and vitamins in large quantities and constitute true energy bombs packed with amino acids.

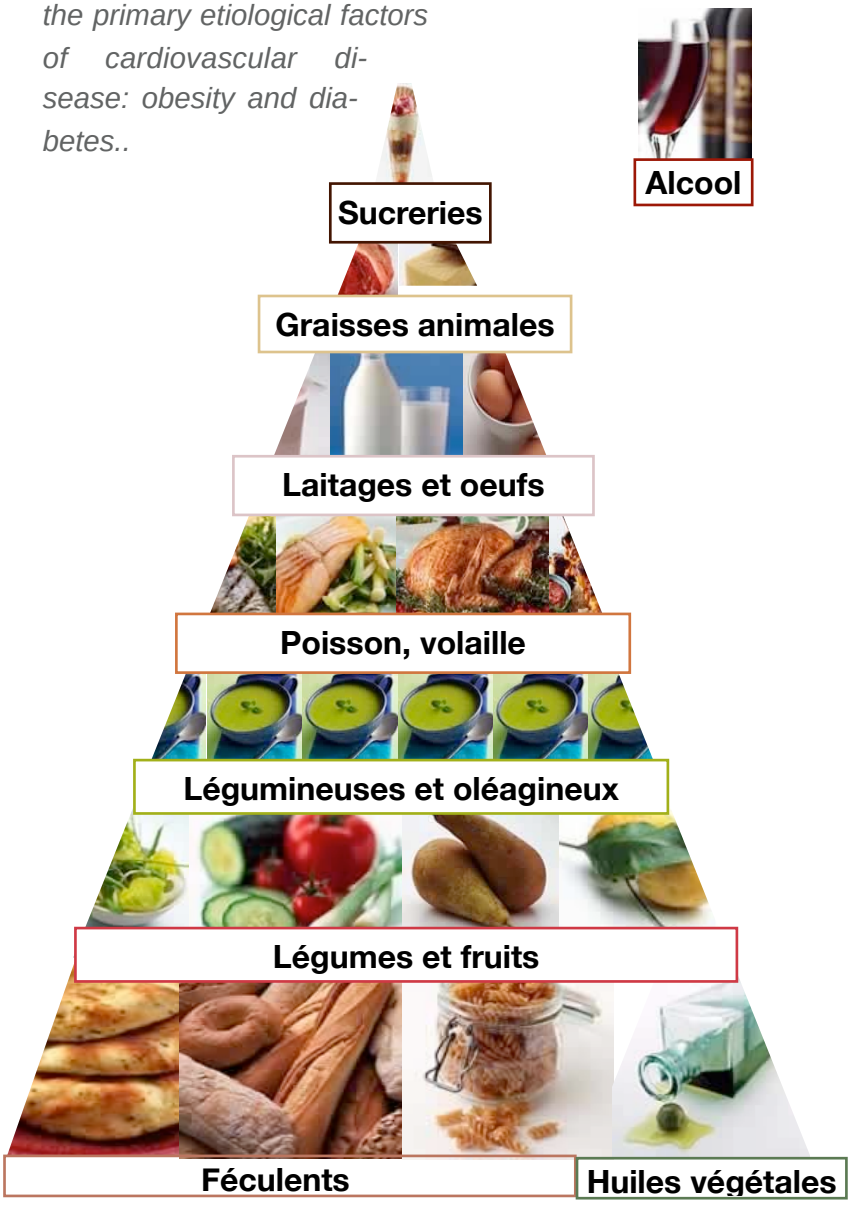


-dairy products

Their primary role was to supply the daily dose of calcium required to prevent osteoporosis. Unfortunately, these products often also contain significant quantities of animal fat, which are not recommended in the prevention of cardiovascular disease. Calcium intake is best obtained in the form of mineral water (e.g. Hépar or Contrex, both very rich in calcium and magnesium).

-fat, oils and sweet items

The message conveyed to Americans was simple: eat less fat and you will improve your cholesterol levels and stand a lesser chance of developing cardiovascular disease. This message was the keystone of the original food pyramid and largely contributed to the spread of obesity and diabetes in the United States, since the population turned its attention from fats to fast-acting carbohydrates. This message also contributed to a decreased intake of mono- and polyunsaturated fats that have health benefits. Instead of having a positive impact on the health of consumers, the pyramid had the opposite effect by encouraging two of the primary etiological factors of cardiovascular disease: obesity and diabetes..



The new food pyramid

created by the Harvard School of Public Health

Daily exercise and weight control *are at the base of the pyramid. The reasons for this are self-explanatory: it has been proved that a sedentary lifestyle as well as obesity increase the risk of developing cardiovascular disease and/or cancer. Daily exercise can mean a daily brisk half-hour walk, there is no need to run a marathon every day. Even just the simple fact of taking the stairs instead of the lift, of going shopping on foot rather than by car, etc. can make a difference.*

The pyramid is built up as follows:

-wholegrain foods:

wholemeal bread, wholegrain rice, wholemeal pasta, wholemeal cereals, etc. The body is unable to digest these wholemeal cereals as rapidly as refined sugars and flours. The result is a slow absorption that helps stabilise blood sugar levels (glycaemia) and insulin levels, in turn resulting in an avoidance of the hunger cravings that occur frequently with rapidly-absorbed sugars and of fat storage encouraged by insulin. The sugar refinement industry came into being only during the 19th century and since then our annual sugar consumption has increased from 5kg to 34kg!!! The body, however, could very easily abstain from consuming refined sugar.

-vegetable oils:

in particular those that contain many unsaturated fatty acids. The best ones include olive oil, colza oil, soya oil, corn oil, sunflower oil and peanut oil. Fish oils are also recommended. These oils improve blood cholesterol levels and protect vessels from arteriosclerosis. A number of cardiologists already prescribe daily doses to their patients (the well-known omega 3 that is omnipresent in pharmacies), but it is still best to change one's dietary habits and to replace red meat with fish two or three times a week.

-fruits and vegetables:

five daily doses are a minimum! Fruits and vegetables help lower arterial tension, protect against cancers, diverticulitis, cerebrovascular accidents, heart attacks, cataracts and macular degeneration (resulting in vision loss). Due to their high antioxidant content, they keep our body in shape and protect it from premature ageing. The more fruits and vegetables you eat, the better. Start the day with a fruit juice and a selection of fruits, have a soup, a cooked vegetable and a salad at lunchtime, have some more fruit in the afternoon and eat vegetables again at night. Your body will thank you for it.

The new food pyramid was developed by the Harvard School of Public Health on the basis of a study it carried out over the course of eight years monitoring the eating habits of 40,000 individuals. It became apparent that the type of food consumed in many cases influenced the state of health as well as the morbidity and mortality of the individuals concerned. By screening the eating habits of those individuals enjoying the best health, the Harvard School of Public Health was able to redesign the food pyramid.

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-fish, poultry and eggs:

the above should constitute your primary source of protein. They contain very little saturated fat and are a significant protein source. The regular consumption of fish has been proven to diminish the risk of cardiovascular disease. The best fish from this point of view are the oiliest: salmon, mackerel, tuna, sardines.

As for eggs, much maligned for their high cholesterol content, the fact is that they contain many proteins and vitamins and that it is preferable to start the day with a boiled egg (avoid fried eggs) rather than a butter croissant!

-nuts and legumes:

these two families are very rich in protein, fibre, vitamins and trace elements. Nuts also contain many essential fatty acids that are beneficial to maintaining good health. The only disadvantage: they are very rich in calories and must therefore be consumed in moderation.

-dairy products:

as primary sources of calcium, unfortunately they also contain many saturated fatty acids that are harmful to health. Preference should therefore be given to skimmed or semi-skimmed products. If you don't like dairy products, take a daily supplement of calcium and vitamin D3 (400IU/day, no more!), especially during winter, since vitamin D3 requires UV radiation for its activation and our part of the world does not always see much sun in winter.

-red meat and butter:

careful, these contain many saturated fatty acids. Replacing red meat with fish or poultry several times a week and replacing butter with olive oil can contribute significantly to improving your cholesterol level!

-white bread, white rice, potatoes, regular pasta and sweet items:

all the above encourage obesity, diabetes and cardiovascular disease, and should therefore be consumed as little as possible.

-vitamin supplements:

while a daily dose of vitamins and trace elements is recommended, it can in no way replace a healthy diet! All it does is supplement the low levels of vitamins and trace elements of greenhouse-grown fruits and vegetables that have sometimes been stored for too long. According to the SUVIMAX study carried out in France on a group of 4000 individuals followed over 8 years, a daily supplementation of vitamins A, C and E and of selenium reduces mortality and morbidity associated with cardiovascular disease and cancers in men! No significant impact was shown in the women, probably because, as a rule, they have healthier diets than men!

-alcohol:

according to several studies, ONE glass of wine a day reduces the risk of cardiovascular disease. Obviously, one has to stick to just the one glass a day.