The food pyramid
To your health!

You are the boss of your own body. And that’s a good thing, but of course it also brings a certain responsibility with it. Everything that you eat and drink has an influence on the mechanism. The saying ‘you are what you eat’ is as true as ever today.

To be effective, a boss needs to be a good listener – in this case, to your body – and needs to have access to the right information to take decisions. But the media often sends mixed messages when it comes to food and its influence on the body. Our health charter ‘tastes good, good for you’ not only guides us in offering a healthy and balanced diet, but also serves to inform our consumers on this subject.

Sodexo informs you through posters about the composition of the meals, and about nutrition, Body Mass Index (BMI) and exercise tips. We also provide a Vitality corner on-site at your company cafeteria: an info stand manned by a dietician who can answer any food related questions. The brochure ‘The nutritional pyramid’ is part of a series of handy booklets, each covering a nutrition-related topic. Written in plain language, with figures that speak for themselves, and packed with handy tips and advice that you can put into practice immediately.

This brochure offers a detailed presentation of the various nutritional elements that form a balanced diet. We explain the products that contain them, their potential positive and negative effects, and the recommended amounts you should consume. This is the fundamental basis for becoming aware of what you eat.

Michel Croisé
C.E.O. Sodexo
A. HEALTHY EATING

Healthy eating involves:
- Varying one's diet.
- Taking more time to eat.
- Eating at regular times.
- 3 main meals and 2 snacks.
- Not skipping meals.
- Eating according to one's needs: not too much and not too little.
- Choosing good sources of energy.
- Drinking enough.
- Eating lots fruit and vegetables.
- Monitoring one's weight.
- Participating in sporting activities, according to one's own abilities.
- Choosing wholemeal products.
- Choosing the right fats.
- ...

Risks associated with unhealthy eating:
- Cardiovascular diseases.
- Diabetes.
- Tiredness.
- Excess weight and obesity.
- Nutrient deficiency.
- ...

Beneficial effects of healthy eating:
- Being fit.
- Being healthy.
- Less risk of developing diabetes.
- Less risk of developing cardiovascular diseases.
- Less risk of developing cancer.
- A healthy mind in a healthy body.
- No deficiencies.
- ...

B. THE FOOD PYRAMID - A GENERAL OVERVIEW

Non-essentials

Meat, poultry, fish and eggs

Fruit

Starchy foods

Physical activity

Water

Vegetables

Dairy products

Fats
Our food of course provides energy for our body but it is also essential for thinking clearly, being healthy, living a long and healthy life and maintaining a positive state of mind.

To make nutritional recommendations more accessible to consumers, nutritionists have developed certain teaching tools, including the food pyramid.

The principle is simple: the pyramid is made up of 8 food groups distributed across different levels and of a 'physical activity' group. It is important to eat foods from all of these food categories to achieve what is referred to as "food equilibrium", namely for eating all of the nutrients needed for peak health. But all of these categories do not take up the same area and their "quantitative" importance diminishes as you move up through the levels of the pyramid.

This model does not slavishly prescribe quantities that are to be eaten as we all have different needs depending on our age, size, weight, sex, level of physical activity, etc... However, the food pyramid clearly expresses the ideal eating ratio to be adopted between the various groups. The base of the pyramid thus represents foods that need to be eaten in the greatest proportions and the apex represents foods that are to be eaten in the smallest quantities. Healthy eating must therefore be made up of foods that form the base of the pyramid (water, starchy foods, fruit and vegetables). If the latter were to be omitted, it would be the balance of our food that would suffer.
C. THE DIFFERENT GROUPS OF THE FOOD PYRAMID

1. Physical activity

Also note that alongside the purely food-based groups, we also find physical activity included in the food pyramid. Even if that might seem strange at first sight, the reason that sport has been included in this teaching tool is very logical. Our needs depend on our age, size, weight, sex, and our needs also vary depending on our level of physical activity. That is why we find sport at the base of the food pyramid; to a large extent it determines our food requirements.
2. Non-energy drinks

As our body is made up of 60% water on average (a bit more in young people and a bit less in older people), it is absolutely essential to provide sufficient quantities for our body on a daily basis. Every day our body gets rid of approximately 2.5L of fluid (excluding special conditions such as heat waves, abnormal losses or intensive sporting activities). It is therefore logical to conclude that this is the quantity that we need to provide our body with. Given that our food provides our body with approximately 1L of water, it is recommended that we drink 1.5L every day.

The only indispensable drink is water. This can be still or sparkling. As water does not contain any protein, carbohydrate, or lipids, it does not contain any calories, and therefore no energy.

Natural mineral waters have a variable content of minerals depending on the brand. The law has stipulated that water is classified in 3 major categories. To determine which category mineral water belongs to, examine the information label: "dry matter" per liter.

- Waters with a very low mineral content: they may not contain more than 50mg of dry matter per liter.
- Waters with a low mineral content: they may not contain more than 500mg of dry matter per liter.
- Waters rich in mineral salts: they must contain more than 1500mg of dry matter per liter.

All waters whose mineral content (dry matter) varies between 500 and 1500mg are not included in any legal category but can be deemed to be averagely rich.

As each water has its own characteristics, it is recommended that you change regularly. However, water can also be chosen to attempt to make up for certain deficiencies. If you only rarely consume milk products, for example, drinking a water rich in calcium can help you to make up for a deficiency in this mineral.
Tea and coffee (without sugar and without milk) are drinks that do not provide any calories either; however, they must be consumed in moderation given their high content in caffeine and theine (which have a diuretic effect, in other words they cause us to lose water by urinating more excessively).

Drinks other than water, tea or coffee contain sugar (or sweeteners) but generally only contain a small amount of protein or fats (apart from milk and milk-based drinks, which we shall touch upon in the category of milk products and which we shall consider as being liquid foods).

**Criteria for choosing a healthy drink: calories and sugar!**

- Still or sparkling water (whichever you like), where applicable flavoured (without drinking excessively) but without any calories. Carefully check the calories (energy value); some waters are rich in sugar.
- Tea, coffee, (without excessive consumption) and herbal teas (with a little or no sugar).
- Fruit juices: only 100% pure juice and without any added sugars (as all juices contain some in natural form). You must always drink them in moderation as they contain the sugar in the fruit and therefore calories (some more than 100 kcal for a small glass of 200 ml, which is not to be overlooked). It is always better to eat fruit and drink water!
- Some drinks contain added sugar. Read the food label for more information, even if you consume light drinks.
- Wines and alcohols: other than alcohol, some contain thickeners, antioxidants or preservatives but they will not be stated as it is not mandatory for alcohols.
- Always check the list of ingredients: drinks, which contain colourings, additives, preservatives, flavourings, acidifiers, etc, are rarely healthy drinks!

<table>
<thead>
<tr>
<th>Energy or energy value</th>
<th>As little as possible, compare different products! Apart from leading sports drinks, the ideal drink should not contain any calories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proteins</td>
<td>Rarely present in drinks</td>
</tr>
<tr>
<td>Carbohydrates</td>
<td></td>
</tr>
<tr>
<td>Sugars</td>
<td>As little as possible</td>
</tr>
<tr>
<td>Fats</td>
<td>Rarely present in drinks</td>
</tr>
<tr>
<td>Vitamins and minerals</td>
<td>Intake that is rarely significant compared to requirements</td>
</tr>
</tbody>
</table>
3. **Starchy foods (cereals, potatoes, dried pulses)**

These foods are the basis of our diet as they are our main source of energy. They are a source of carbohydrates, a unique form of energy that can be used by our brain. This category includes bread, rice, pasta, semolina, dried pulses, potatoes and a whole range of cereals (breakfast or otherwise) such as wheat, corn, tapioca, barley, millet, buckwheat, oats, quinoa, etc. Please note that dried pulses can also be categorised in the category of meats on account of their rich protein content, which is why they are regularly eaten by vegetarians.

**Bakery products**: they are very rarely the subject of nutritional labelling. Choose the most simple products such as bread or a baguette, where possible whole grain or wholemeal. Avoid pastries (chocolate, cream, butter croissants) and other pastries rich in saturated fats, trans fatty acids and sugar, as well as special breads such as raisin breakfast bread or cream puff eclairs, which are very rich in sugar. Sourdough bread is particularly interesting, not only for its taste, but in particular for its nutritional qualities. In fact, the phytic acid content naturally in traditional bread (which reduces the absorption of numerous minerals) is neutralised.

**Rice, pasta, semolina**: choose non-ready made and where possible wholemeal. Ready-made products are often richer in calories, sugars and unhealthy fats. The wholemeal products are richer in minerals and fibre, which is a bonus.

**Potatoes**: prepare them as naturally as possible avoiding potato-based ready dishes, often rich in calories and fats (chips, crisps, gratins, purées, …). Also be aware that a jacket potato is healthier than a peeled potato, based on an increased fibre content.

**Breakfast cereals**: always avoid ones, which are coated in chocolate, honey or sugar. Generally speaking, even the lightly sugared ones have a very high glycaemic index (cause your blood sugar level to suddenly peak). Wholemeal bread, oat flakes or cereals that are very rich in fibre are a better alternative.
Other cereals: a whole series of other cereals such as quinoa, kamut, bulgur, rye, barley, millet, oats, spelt and many others too. These cereals are an important source of carbohydrates, fibre and minerals. They also provide certain vitamins as well as proteins. The latter are referred to as being of lesser biological value because they do not contain all of the essential amino acids. The essential amino acids are particles of proteins that our body is not able to synthesise but which are needed. They must therefore be present in our everyday food. However, by creating positive associations between vegetable-based foods (see our brochure on vegetarianism) in the same meal, it is quite possible to provide our body with all of the essential amino acids and therefore proteins of high biological value.

Dried pulses: these can be categorised in the starchy food group as they are rich in carbohydrates or in the group of meats, poultry, fish and eggs as they are rich in proteins. One thing that is certain is that they are unfairly overlooked particularly as they are a very good source of these two nutrients, as well as fibre, minerals and vitamins, mainly from group B.

Starchy foods ought to be eaten at every meal in sufficient quantities. As each one has different benefits, variety is a good thing.

<table>
<thead>
<tr>
<th>Energy or energy value</th>
<th>Varies depending on brands, check sugar and fat content, in particular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proteins</td>
<td>No notable differences between brands but choose the least rich</td>
</tr>
<tr>
<td>Carbohydrates</td>
<td>The least amount of sugar or sucrose possible</td>
</tr>
<tr>
<td></td>
<td>Always preferable</td>
</tr>
<tr>
<td>Sugars</td>
<td></td>
</tr>
<tr>
<td>Starch, complex</td>
<td>The least possible total fat (max 3 to 5g/100g) and saturated fatty</td>
</tr>
<tr>
<td>carbohydrates</td>
<td>acids (max 2 to 3g/100g)</td>
</tr>
<tr>
<td>Fats</td>
<td>Choose foods as rich in fibre as possible, they play a number of</td>
</tr>
<tr>
<td></td>
<td>very important roles for our health.</td>
</tr>
<tr>
<td>Fibre</td>
<td>They are often fortified in vitamins and minerals, which is a</td>
</tr>
<tr>
<td></td>
<td>bonus (Fe, Ca and B vitamins)</td>
</tr>
</tbody>
</table>
4. **Vegetables**

Just like starchy foods, the main nutrients that vegetables provide are carbohydrates. But vegetables are a source of many other nutrients essential for our body such as fibre, minerals, vitamins, water and antioxidants.

Eating recommendations for vegetables issued by the PNNS-B (Belgian National Nutritional Health Scheme) are a minimum of 300g per day and there is no real upper eating limit, as the nutritional value of vegetables is high and their calorific value is low. Eating (a bowl of soup), a portion of fresh raw vegetables (100g) and cooked vegetables (200g) every day will ensure you meet these recommendations.

There are various colours of vegetables (yellow, orange, white, red, mauve, green,…). These colours are due to pigments, which correspond to antioxidants, which our body needs to fight off free radicals, which are at the root of the aging process and degenerative diseases if produced in excess. Varying the varieties and colours of vegetables that you eat is thus an excellent idea to boost your body's defence system.

Spices and flavourings are part of this food category. However, they are consumed in fairly small quantities, which leads one to the conclusion that their nutritional intake is negligible from the point of view of calories. In contrast, they provide a great deal of taste and flavour to foods. Their use is therefore greatly encouraged and often enables you to use less salt or fat.

<table>
<thead>
<tr>
<th>Energy or energy value</th>
<th>The least possible, in principle fresh vegetables never exceed 25 kcal/100g (apart from beet, Brussels sprouts, artichoke and palm hearts, corn and green peas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proteins</td>
<td>With the exception of dried pulses, vegetables are not rich in proteins</td>
</tr>
<tr>
<td>Carbohydrates</td>
<td>The content in vegetables varies but is always good quality if they are freshly prepared. Be cautious if they have added sugar</td>
</tr>
<tr>
<td>Fats</td>
<td>They contain virtually none in their natural state. Check carefully the content on the label and minimise saturated fatty acids as much as possible</td>
</tr>
<tr>
<td>Fibre</td>
<td>Vegetables are often rich in fibre, promoting good digestion</td>
</tr>
<tr>
<td>Vitamins and minerals</td>
<td>They are naturally rich in minerals and vitamins, making them indispensable</td>
</tr>
</tbody>
</table>
**Fresh, frozen or tinned?**

Fresh vegetables are not labelled. Freshly prepared, they do only contain nutrients that are naturally present in vegetables namely an average of 2 to 3 g per 100g of proteins, between 0.5 and 5g of carbohydrates and between 0 and 1g of fat.

Certain frozen vegetables are completely fresh and their nutritional value is comparable to that of fresh vegetables. There again, they are sometimes prepared, which makes them more calorific. Therefore always check the labelling for frozen vegetables and vegetable-based ready meals.

Tinned produce is sometimes an alternative but they do not always have the same taste and are often very rich in salt.

Look at the list of ingredients and check that fats or sugar is not present (they must of course contain carbohydrates, but not added sugar). It is therefore preferable to eat fresh vegetables or freshly frozen vegetables. A healthy disrespect for vegetable stir-fries if they contain added fats, for cream or gratin vegetable dishes, for certain soups, which can be very high-calory or for mouth-watering vegetable-based ready meals...

**Cooking methods**

Steaming and cooking in a wok is ideal for vegetables. It allows you to better preserve vitamins and flavour and to minimise cooking fats.

Boiling is less ideal than the previous 2 alternatives, as vitamins and minerals are lost in the water. Try to use the exact quantity of water needed for cooking to minimise losses.
5. **Fruit**

The composition of fruit is quite similar to that of vegetables. They too are a source of fibre, vitamins, minerals, water and antioxidants. However, they are significantly richer in carbohydrates (added sugars) and also contain fructose (naturally occurring sugar present in fruit), dictating that their consumption should be controlled. Nevertheless, their consumption by a large proportion of the population is generally insufficient. Eating 2 to 3 pieces of fruit per day represents an ideal pattern of consumption. Once again, varying fruit and colours is the golden rule.

**Dried fruit**

This is fruit from which a large part of the water has been removed (raisins, dried apricots, dried bananas, etc.). This drying process results in a far greater concentration of sugars and fibre. They also constitute an important source of calcium (figs in particular) and of potassium. Dried banana is very rich in magnesium. By contrast, vitamin C is almost completely absent. They are a great idea for snacks being rich in fibre and minerals, but they should not be eaten in excess as they are rich in sugars and calories. They are not to be confused with oilseed fruit (nuts, hazelnuts, etc.) which according to the food pyramid for south Belgium belong to the category of fats, given that fat content is great. In the Flemish-speaking food pyramid, oilseed fruit is found in the category of meat/fish/eggs given their protein and iron content.
**Fresh, frozen or tinned?**

These are not mandatory on labelling. If you eat them in any way other than "fresh" (that is as a fruit salad, tinned fruit or as a compote), check carefully that they do not contain added sugar. The words "without added sugar", "without added sugars" (with s), or "100% pure fruit" should appear on the packaging. It is this type of wording that should help you to make the right choices. In fact, with fruit naturally containing carbohydrates (sugars), it isn't easy to guess whether or not added sugar has been added solely based on the nutritional labelling (see 'labelling' brochure). Whatever is the case, even without added sugar, always give precedence to fresh and raw fruit, which contain more vitamins. It is, however, important to note that the conditions for storing, peeling (or not) and preparing the fruit can lead to partial destruction of the vitamins to a greater or lesser extent, which are susceptible to air, light, heat, water etc.
6. **Milk products**

They are represented in the food pyramid by milk, tinned milk, yoghurt, fermented milk and cheese. Ice cream is classified in the category of non-essentials and creams in the fats category (according to the food pyramid for South Belgium) or in the category of non-essentials (according to the food pyramid for North Belgium).

They are currently the subject of a certain amount of criticism and of numerous debates by a number of health professionals while others continue to fight tooth and nail for them. Nevertheless, it is not a question of simply being for or against them, but of being sensible and making the right choices. Eating a minimum of 2 to 3 milk products per day normally allows you to meet recommendations in terms of calcium.

If you suffer from a lactose intolerance, it goes without saying that you should avoid milk, particularly drunk as a young person and in large quantities. There again, Gouda-type hard skin cheeses do not contain any or hardly any milk. The bacteria used to make yoghurt works in a similar way to lactase. Consequently, yoghurts no longer contain any more than a bit of lactose, due to the presence of this bacterium. They are thus easier to digest.

If you are watching your waistline, it is better to choose light products to avoid eating too much fat, and often saturated fat.

If you wish to eliminate them from your diet, it is best to cover the recommendations relating to calcium by eating lots of fruit, vegetables and fish and/or by drinking water that is rich in calcium.

The supermarket shelves are increasingly overflowing with milk products and it is very difficult to get an idea given the extensive range of milks, yoghurts, milk-based deserts, fresh white cheeses, cheeses, etc.

Everything does, of course, come down to a question of taste, nevertheless here are a few little hints to help you make sense of this.
Milks
Legally, only milk products secreted from the mammary gland may bear the name "milk". Soya milk as a designation is therefore incorrect and ought to be replaced by soya juice.
Milks for human consumption are usually heat-treated (if this is not the case, then it is referred to as "raw milk" or "untreated milk"), in order to remove bacteria from it. Depending on the method used, its nutritional composition can vary. Currently it is UHT milks (treated at Ultra High Temperature) which guarantee the best nutritional, taste and bacteriological quality.

The composition of the milk in its natural state is quite stable but some techniques are used to remove the fat content in full or in part. We shall therefore make a distinction between:
- whole milk (in which all of the fat content has been left),
- semi-skimmed milk (from which half of it has been removed), and
- skimmed milk (which contains practically no fat).

The fatty acids in milk are saturated fatty acids. In spite of their bad reputation, some of them play an important role in our health (butyric acid, for example, plays a protective role in cancer of the colon). However, it is important to make sure that it is consumed in moderation to avoid any opposite effect.

Some vitamins referred to as "fat-solubles" (soluble in fats and not in water) are only present in fats. They are therefore completely absent in skimmed milk. It is therefore recommended to opt for semi-skimmed milk, other than for children who up to the age of 4 need more fat and must therefore drink whole milk and children below the age of 18 months, who must drink special milk (and not cow's milk). Note that in contrast, the amount of calcium is not linked with the quantity of fat; skimmed milk therefore contains as much calcium as whole milk.

In the case of concentrated, fruit, flavoured or chocolate milks, always check:
- the fat content to see if it is whole milk, semi-skimmed or skimmed;
- the sugar content;
- the calory content, which will of course depend on the fat and sugar content.

Some of these milks are very rich in calories and can destabilise your energy balance! This is also the case for small bottles of fermented milk intended to boost our immune system. Choose whole milk varieties and ones with as little sugar as possible.
Cheeses
Cheeses can be fresh (white cheese, mascarpone, ricotta, etc.) or fermented. In the category of fermented cheeses, a distinction can be made between 5 groups:
- soft cheeses (surface ripened, with washed rind or rindless)
- semi-hard cheeses
- hard cheeses (boiled pressed, unboiled pressed or melted)
- blue-veined cheeses
- special cheeses

The highly peculiar thing about cheeses from the point of view of the labelling, is that the fat content (fats) stated on the packaging is sometimes different from that appearing in the nutritional table. How can this be possible?

The fat content on the packaging is expressed as a percentage of dry matter. The dry matter of a cheese corresponds to 100g of the product before water has been added to it. In the nutritional table, you will find the actual fat content of cheese, namely in relation to the finished product, once water has been added. Thus, the packaging of a white cheese might state that it contains 40% fat (out of the dry matter) whereas in reality, it only contains 5% fat in the finished product, as it appears on the nutritional table if it is present (for more information about this, please refer to our ‘labelling’ brochure).

The fat content of cheese (of the finished product) varies greatly and can range from 0 to more than 40%. Other than the taste, it is therefore the fat content in particular, which should guide the eye when making a selection.
Yoghourts
The choice of yoghurts is also very extensive. Unlike cheeses, it is their sugar content in particular that is going to make the difference. In fact, the fat content is only going to vary between 0 and 3% fat, the maximum content for a whole yoghurt.

If the yoghurt is "natural", it should normally contain no other sugar than the sugar naturally present (lactose). Otherwise, they are sometimes sweetened, which significantly increases their energy value.

As is the case for natural yoghurts, fruit yoghurts can contain between 0 and 3% fat. Nevertheless check their content in the nutritional table as there as some brands, which have enriched them with cream, which can cause their fat content to increase up to 10%. The sugar content can vary just as widely. It may simply be the sugar in the fruit or also added sugar (sucrose or naturally occurring sugar). This added sugar of course increases the energy value and reduces its nutritional quality. To get round this drawback, many manufacturers today use sweeteners, which do not provide any calories (called high-intensity sweeteners), thereby enabling them to advertise a sugar level of 0% whilst preserving the sugary flavour in their yoghurts.

If you are watching your waistline very carefully and you eat yoghurts regularly, then opt for "double zero" yoghurts, without fat and without sugar (sweetened instead). Otherwise, a whole fruit yoghurt, without added sugar, is ideal and allows you to take advantage of the fat-soluble vitamins.

Milk-based desserts
These too are often enriched with fat and sugar. They are to be eaten on an occasional basis. Using the nutritional table, identify the ones with the least fat and the least sugar possible, that is the fewest calories.

Always carefully examine the instructions per 100g of product to compare 2 yoghurts or 2 milk-based desserts. But please note, also check the information per portion, some white cheeses or deserts weigh 60g while others weigh 180! If the information is only given for 100g of the product and your yoghurt weighs 125g, you need to multiply all of the information given for 100g by 1.25.
<table>
<thead>
<tr>
<th>Energy or energy value</th>
<th>As little as possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proteins</td>
<td>All of the milk products contain some, but this does vary. They are high biological value proteins that is ones providing all of the essential amino acids.</td>
</tr>
<tr>
<td>Carbohydrates</td>
<td>The natural &quot;sugar&quot; in milk is lactose. The content of lactose varies from one milk product to another. Lactose is gradually released into the blood and at a low glycaemic index. In contrast, it is sometimes difficult to digest for some people, who have a lactase deficiency, the enzyme critical for the digestion of lactose. Some other sugars are sometimes added, which sometimes makes milk products high in calories. Always avoid added sugar.</td>
</tr>
<tr>
<td>Fats</td>
<td>They are usually saturated, which does not mean that you need to eliminate them completely. It is actually in fats that fat-soluble vitamins are found. It is better to be sensible about eating them. Semi-skimmed products are a good choice.</td>
</tr>
<tr>
<td>Fibre</td>
<td>Only if there is any fruit or cereals in them.</td>
</tr>
<tr>
<td>Vitamins and minerals</td>
<td>The most important mineral is calcium. The presence of vitamin A depends on the fat level. The presence of vitamin D depends on the season. Milk products contain some vitamins in group B. There isn't any vitamin C.</td>
</tr>
</tbody>
</table>
7. Meat, poultry, fish and eggs

This category of foods is our main source of proteins. These are animal proteins, which are referred to as being "of high biological value" in the sense that they contain all of the essential amino acids. The essential amino acids are particles of proteins that our body is not able to synthesise but which are needed. They must therefore be present in our everyday food.

Foods from this group are often eaten in excess. Eating recommendations are as follows:
- Fish: a minimum of twice a week, including one fatty fish.
- Lean meat: 2 to 3 times a week.
- Fatty or averagely fatty meat 2 to 3 times a week.
- Vegetarian dish: 1 to 2 times a week.

In total this gives us:
- 2 x fish:
- 2 x poultry
- 1 x white meat
- 1 x minced meat
- 1 x red meat

These foods are not usually labelled, whether they are bought from the butcher, the fishmonger or from a supermarket (with the exception of the ready-made meals or prepared meat). Apart from eggs the composition of which is fairly stable (although the quality of the fats in the egg can depend on the way in which the hens are fed), the fat content of meat, poultry and fish is going to vary depending on the type of animal and depending on the selected cut.
Meat

- **Beef:**
  - Lean cuts (< 6% fat): steak, strip loin, tenderloin, minute steak, sirloin, rump steak, rump, shin, spider cut, flank, tips, liver
  - Medium fat cuts (6 to 10% fat): stewing meat, thick skirt (prime cut), chuck steak, brisket
  - Fatty cuts (> 10% fat): mince, ribs, ribsteak, short ribs, spare ribs, flank.

- **Veal:**
  - Lean cuts (< 5% fat): ribeye, escalope, roast, fillet, steak
  - Medium fat cuts (5 to 10% fat): carbonnades, breast, blanquette, shank, shoulder, ribs, tongue, kidneys.
  - Fatty cuts (> 10% fat): mince

- **Pork:**
  - Lean cuts (< 5% fat): loin, roast, escalope, fillet, tenderloin, liver, sauté
  - Medium fat cuts (5 to 10% fat): ribs, kidney
  - Fatty cuts (> 10% fat): mince, neck, knuckle, chops, spare ribs, bacon, tongue

- **Lamb/mutton:**
  - Medium fat cuts (!!! 18% fat): filet
  - Fatty cuts (!!! 25% fat): leg, neck, rib, shoulder

- **Horsemeat** is lean.

- Cooked pork meats and ready-made meat meals such as black pudding, pâté, sausage or salami earn their reputation for being very fatty. In contrast, even if the fat content of ham varies, they are often less fatty.
Poultry and game
- Lean cuts: skinless chicken and turkey, ostrich, duck breast, partridge, pigeon, guinea fowl, boar, venison, young wild boar.
- Medium fat cuts: minced poultry, rabbit
- Fatty cuts: duck, chicken, goose

Fish
- Low-fat fish: cod, coley, monkfish, whiting, turbot, sole, tuna on its own (without oil)
- Medium fat fish: sardine, trout, salmon trout
- Fatty fish: salmon, mackerel, tuna in oil, herring, sprat, eel, herring fillets in oil

Don't forget that fatty fish contain essential fatty acids (omega 3), which we are often deficient in; eat once a week.

Eggs
An egg contains an average of 6g of protein, 5g of fat and 1g of carbohydrate.
The egg yoke also contains a lot of cholesterol.
The only difference that can exist between eggs is their omega-3 content. Thus, hens fed on linseed will lay eggs richer in omega-3. This is the case, for example, for Columbus eggs.

Ready-made meals
Apart from low-fat meals (usually!), ready-made meals are often fatty and/or not very well balanced. However, there is an enormous range and their ingredients vary hugely from one dish and from one brand to another. Always check their fat content and the quality of the fat. It is always better to opt for mono- and polyunsaturated fats over saturated fats.
8. Fat

Nearly all foods contain some but in a hidden form (cheeses, meats, chocolate, pâté, crisps, ready-made meals, olives, avocados, etc.). The ones that we are going to examine in this chapter are visible or added fats. It goes without saying that the method of preparation will have a bearing on the fat content of the food. For example, chips are fattier than fresh potatoes.

You can categorise them according to different criteria such as how firm they are, where they come from or what they are used for.

To make things simpler, we are going to classify them into 2 large categories:
- Animal fat:
  - crème fraîche (which is found in the group of non-essentials in the pyramid for North Belgium),
  - butter,
  - low-fat butter,
  - ...
- Vegetable fats that can be classified into 3 subcategories:
  - Oilseed fruit: avocado, olives, nuts, hazelnuts, almonds, etc. (which are found in the group of meats/fish/eggs in the Flemish-speaking pyramid)
  - Margarines and low-fat margarines
  - Oils

The inhabitants of North Belgium only include fat spreads and those that are used for cooking in this food group.
Animal fat

- Butter: labelling is not a requirement. The law stipulates that it must always contain 81% fat. These are mainly saturated fatty acids. You shouldn't therefore eat it to excess, particularly because it also contains a lot of cholesterol. It is nevertheless not to be overlooked, particularly for people who are not overweight, as it contains fat-soluble vitamins (vitamins A and D, in particular). We talk about half-butter, when it only contains 42% fat. Half-butter cannot be heated. Currently, there are some butters that are even more low-fat. The lower their fat content, the greater their fat-soluble vitamin content is too.

- Suet and lard are compound animal fats made up of 100% fat, lots of saturated fatty acids therefore. They are not therefore recommended as healthy options.

- Duck fat is also made up of virtually 100% fat and contains fewer saturated fatty acids than the last two. Eating it is not therefore recommended.

- Liquid or solid cooking fats: they vary greatly in their composition, examine the nutritional tables. The golden rule here is to opt in favour of liquid fats over solid fats. Because bad fats (animal) are generally speaking solid at ambient temperature, whereas good fats (vegetable) are liquid at ambient temperature.

- Crème fraîche: if not low-fat, it contains 30 to 35% fat. As in the case of butter, there are some that are increasingly low-fat. The fat content currently varies between approximately 3 and 35%. Once again it is the "fat" label that will tell you what the total fat content is. Of course, soya-based crème fraîche are not animal products and do not therefore contain any cholesterol.
<table>
<thead>
<tr>
<th>Energy or energy value</th>
<th>The least possible if you are watching your waistline but do not forget that fat-soluble vitamins are found in fats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proteins</td>
<td>Vary little and are present in small quantities</td>
</tr>
<tr>
<td>Carbohydrates</td>
<td>Vary little and are present in small quantities</td>
</tr>
<tr>
<td>Fats</td>
<td></td>
</tr>
<tr>
<td>Saturated fatty acids</td>
<td>Animal products are almost exclusively saturated fats. Their content is preferable</td>
</tr>
<tr>
<td>Monounsaturated fatty acids</td>
<td>Their content is preferable</td>
</tr>
<tr>
<td>Polyunsaturated fatty acids</td>
<td>The content is proportionate to the quantity of saturated fatty acids</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>Their content is is not a labelling requirement, they are to be avoided as much as possible</td>
</tr>
<tr>
<td>Trans fatty acids</td>
<td></td>
</tr>
<tr>
<td>Vitamins</td>
<td>The more fatty the products are, the more they will contain</td>
</tr>
<tr>
<td>Minerals</td>
<td>It is salt, in particular, that you need to keep an eye on, salted butter, in particular, is very rich in salt.</td>
</tr>
</tbody>
</table>
**Vegetable fat**

**Oilseed fruit**
Their fat content varies from 15 to 65% and therefore varies greatly. They are almost never labelled when they are the only ingredient on the packaging. In contrast, they are amongst the big allergens (in other words they are the cause of many allergies) and their presence must therefore always be stated on the packaging if they are in the ingredients of a food.

Simply examining a food ingredients table will help you to find out its composition. However, be aware that the fats that they contain are often good quality fats, and for the most part are rich in fibre and certain minerals, such as magnesium and potassium. You should not eat them in too large quantities as they are of course very rich in calories.

**Margarines and low-fat margarines**
Margarines, contrary to what many people think, are also as rich in fats as butter. They contain 65 to 98% fat. When they are low-fat, they are thus referred to as low-fat margarines and therefore contain less than 40% fat.

Whether or not they are spreadable does not modify their nutritional composition. In contrast, a number of them are increasingly fortified with a variety of nutrients (omega-3, vitamins, antioxidants). These supplements are only rarely significant ones and consumption levels would have to be very high for such a supplement to have any real beneficial effect.

Being vegetable in origin, no margarine or low-fat margarine contains any cholesterol.

The things that should most catch your eye are the total fat content (we recommend using low-fat margarine with approximately 38 to 42% fat) and fatty acid type ones, in particular. Always opt for mono- and polyunsaturated fatty acids over saturated fatty acids.
Oils

Their composition is going to vary depending on where they come from. All oils are made up of 100% fat. It is the quality of the fatty acids that is going to vary depending on your choice.

With the exception of palm, coconut and copra oil, which are rich in saturated fatty acids (and not recommended therefore), vegetable oils mainly contain mono- and polyunsaturated fatty acids.

The richest oils in monounsaturated fatty acids are: olive oil, rapeseed oil, peanut oil, hazelnut oil, almond oil. Amongst these, rapeseed oil is the one most worthy of mention. In fact, it is the oil providing the best ratio between omega 6 and omega 3. It is the most well balanced oil for everyday use.

The richest oils in polyunsaturated fatty acids are: nut oil, grape seed oil, wheat germ oil, linseed oil, sunflower oil, soya oil, maize germ oil. They cannot be used for cooking but are good for cold meals. They are often a very good source of vitamin E.

Our advice:

- For cooking: use olive oil in sensible quantities.
- For cold meals: rapeseed oil is certainly an excellent choice, as well as nut oil. A blend of 4 oils can also work but they are not all of the same quality. Rapeseed oil can be added to hot foods but may not be heated as the omega 3 is not good at tolerating high temperatures. Do not therefore use it for frying or sealing foods.

Mayonnaise-type sauces are vegetable oil-based. Their quality will, of course, depend on the oil used for their preparation. Low-fat varieties, of course, contain less fat but these are sometimes replaced by sugar, which is no better. It is thus better to opt in favour of quality rather than quantity.
9. **Non-essentials**

Non-essentials are generally rich in fat, sugar, or both. They have a very high nutritional density (contain a lot of nutrients compared to their weight) to the detriment of good nutritional quality. These are foods that provide lots of calories at low volume.

A small square of dark chocolate with more than 70% cocoa from time to time has some very beneficial effects on health. In fact, this type of chocolate contains magnesium, with a low glycaemic index (in other words it does not cause your blood sugar level to suddenly peak) and contains theobromine, which has a well-known "antidepressant" effect.
### D. DAILY SUMMARY

<table>
<thead>
<tr>
<th></th>
<th>3 – 6 years</th>
<th>6 – 12 years</th>
<th>12 – 18 years</th>
<th>19 – 59 years</th>
<th>+ 60 years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physique exercise</strong></td>
<td>60 min</td>
<td>60 min</td>
<td>60 min</td>
<td>30 min</td>
<td>30 min</td>
</tr>
<tr>
<td><strong>Water</strong></td>
<td>1 – 1.5 litre</td>
<td>1.5 litre</td>
<td>1.5 litre</td>
<td>1.5 litre</td>
<td>1.5 litre</td>
</tr>
<tr>
<td><strong>Potatoes, cooked</strong></td>
<td>1 – 4 potatoes</td>
<td>3 – 4 potatoes</td>
<td>3.5 – 5 potatoes</td>
<td>3.5 – 5 potatoes</td>
<td>3 – 4 potatoes</td>
</tr>
<tr>
<td><strong>Bread, whole grain</strong></td>
<td>3 – 5 slices</td>
<td>5 – 9 slices</td>
<td>7-12 slices</td>
<td>7 – 12 slices</td>
<td>5 – 9 slices</td>
</tr>
<tr>
<td><strong>Vegetables, fresh/frozen</strong></td>
<td>100 – 150 g</td>
<td>250 – 300 g</td>
<td>300 g</td>
<td>300 g</td>
<td>300 g</td>
</tr>
<tr>
<td><strong>Fruit, fresh</strong></td>
<td>1 – 2 fruit (pieces of fruit)</td>
<td>2 – 3 pieces of fruit</td>
<td>3 pieces of fruit</td>
<td>2 – 3 pieces of fruit</td>
<td>2 – 3 pieces of fruit</td>
</tr>
<tr>
<td><strong>Milk products (semi-skimmed) and soya products enriched with calcium</strong></td>
<td>4 containers or 500 ml</td>
<td>3 glasses</td>
<td>3 – 4 glasses</td>
<td>3 glasses</td>
<td>4 glasses</td>
</tr>
<tr>
<td><strong>Cheese</strong></td>
<td>0.5 – 1 slice</td>
<td>1 – 2 slices</td>
<td>2 slices</td>
<td>1 – 2 slices</td>
<td>1 – 2 slices</td>
</tr>
<tr>
<td><strong>Meat, fish, eggs, replacement products (not ready-made) (egg: 1 per week)</strong></td>
<td>0.5 – 1 slices of cooked port meats</td>
<td>65 – 100 g</td>
<td>75 – 100 g</td>
<td>100 g</td>
<td>100 g</td>
</tr>
<tr>
<td></td>
<td>65 – 100 g of meat, fish, poultry OR 50 – 75 g of tofu, Tempé (fermented soya beans), Quorn OR 3 tablespoonfuls of pulses (uncooked quantity)</td>
<td>100 g</td>
<td>100 g</td>
<td>100 g</td>
<td>100 g</td>
</tr>
<tr>
<td><strong>Fat spreads, cooking fat</strong></td>
<td>5 g by slice of bread</td>
<td>Thin layer</td>
<td>Thin layer</td>
<td>Thin layer</td>
<td>Thin layer</td>
</tr>
<tr>
<td><strong>Non essentials</strong></td>
<td>Not necessary, be sensible</td>
<td>Not necessary, be sensible</td>
<td>Not necessary, be sensible</td>
<td>Not necessary, be sensible</td>
<td>Not necessary, be sensible</td>
</tr>
</tbody>
</table>