FOOD EDUCATION ITALY

NUTRITION: ENJOY TASTING!

THE ENCYCLOPEDIA OF A HEALTHY DIET

Con il contributo educazionale di: Abbott A Promise for Life

THE ENCYCLOPEDIA OF A HEALTHY DIET

TABLE OF CONTENTS

NUTRIZIONE: PRENDIAMOCI GUSTO!

www.foodedu.it

FOOD AND HEALTH

To have a cast-iron stomach... to be the picture of health... to be full of beans... Have you ever noticed how many idiomatic expressions about health there are?

It is natural: when we are healthy, we have it all! But "health" is a complex concept, which has been developing hand in hand with the progress of mankind and his knowledge.

In the Iliad, the Greek poet Homer tells of one of the first wars we know about, the one fought by the Greeks to conquer the city of Troy. He relates about a terrible epidemic which caused the death of men and animals in the Greek camp… According to Homer, the epidemic was triggered by the wrath of God Apollo, who sent a plague shooting his arrows to punish the Greeks. It definitely was a strange way of understanding the origin of diseases, but divine punishment was considered a possible explanation of illness for thousands of years.

Today we are a lot more familiar with our body and environment, and **we know that diseases have very specific causes that can be often avoided.** We also know that not being sick does not necessarily mean to feel good, because health is not just all about the body: it involves the whole individual in his relationship with himself and the others. The idea of health as the mere absence of disease has now been replaced with the idea of health as a mirror of a complete physical, mental and social wellness.

The link between our diet and our health is very close. During the last seventy years, the eating habits of Italians (as well as those of other Western people) have changed, encouraging the spread of several serious diseases which were definitely more uncommon in the past. Over the last century, the incidence of cancer has more than tripled and many surveys suggest that there is a relationship between a poor diet and the appearance of certain types of tumors.

Circulatory system diseases, such as hypertension, arteriosclerosis and heart attack, have also increased in Italy since WW2, partly because of bad eating habits. Obesity is another serious problem which also affects young people and leads to health risks, diabetes in the first place.

Too many mistakes!

What are the mistakes, in terms of eating, which have led to this situation?

Generally speaking, food consumption has changed for the worse: the typical products of Italian food culture have been taken over by other eating patterns. The consumption of animal source foods, fats and refined sugars has grown significantly, while proportionally we eat less cereals, vegetables and fruit.

We usually ingest more calories than our body needs, and this fosters overweight and obesity. Also, eating few vegetables does not provide us with an appropriate supply of very important substances, such as vitamins, minerals and fibers.

But these are not the only mistakes: rush, routine and misinformation have been leading to arrange and have a quick meal, without paying attention to the nutritional value of food ... nor to its taste.

> Teenagers have the strong tendency to skip some meals like breakfast, eat too many snacks, consume an excessive amount of soft drinks and spend too much time sitting in front of the computer or watching television without performing an adequate bodywork.

Let's reduce the "risk factors"

These are the factors associated with a significant increase in the probabilities of developing a disease. Some risk factors, such as age, cannot be changed, while others can be reduced or eliminated: you can improve your eating habits, avoid smoking and drinking alcohol... you can engage in some sports or physical activity... there are really so many things you can do to ensure a wealthy future.

WHY DO WE EAT?

Like any other organism, man needs to feed, that is, to take in the substances which are essential to life and body functions. Yet man, unlike other animal species, does not eat only to feed, but also to satisfy the taste, communicate and be comfortable with the others. It is a beautiful thing to feel pleasure in eating, the important is to be able to match taste and health, following a diet which satisfies our taste as much as possible and at the same time gives our body everything it needs to grow and stay healthy.

Hunger, appetite and satiety

Hunger is a strong uncomfortable feeling in your stomach caused by the need for food.

Satiety is when your appetite is satisfied.

Appetite is that lovely feeling associated with the desire for a food followed by the production of saliva (when something makes your mouth water!!!!!)

The needs of our body and the functions of food

In order to get healthy eating habits, it is important to be aware of the functions foods carry out in our body.

Three key questions

Making healthy food choices ultimately means to find the answers to three fundamental questions:

- **What to eat?**
- **How much to eat?**
- **When to eat?**

Food gives us energy

Our body is constantly active, day and night, even while we are resting. Breathing, heartbeat, the work of intestine and other vital organs, are non-stop and occur independently of our will. This activity requires a continuous energy expenditure, as well as it takes energy for us to move, study, do sports, work... Even the need to keep a constant body temperature involves an effort for the body and therefore an energy expenditure.

So it is clear that one the main needs of man is to get energy and a first basic function of food is just to give him all the energy he needs.

A continuous exchange

The human body is in a state of continuous and mutual exchange of energy with the world. Energy is essential for all vital functions of man.

Its unit of measure is the calorie (cal), a very small amount, whereby to indicate the energy provided by foods, Italy prefers using the kilocalorie (kcal), which corresponds to 1.000 cal. Labels show an indication in a different unit too, the kjlojoule: it is the international unit of measurement.

How much energy do we need?

Every day we need to introduce with food a sufficient amount of energy to balance the one we use. This last is the sum of two components: **the basic energy requirement** (basal metabolic rate), and the **energy requirement for activities.**

The basic energy requirement

It is the energy we need just to keep the body alive. Even when we are at rest, we need energy for all chemical reactions to take place in the cells and internal organs, like heart, lungs, kidneys and liver, which work independently of our will. The basic energy requirement, also called "basal metabolic rate", is responsible for 60-70% of the energy consumed and it varies from person to person, not only in terms of weight and height, but also for other factors, such as age, gender, race, the climate where you live in.

The energy requirement for activities

It is the amount of energy we need for:

- **voluntary activities**: *walking, working, studying, playing sports, cleaning the house... the activities we usually carry out involve a daily expenditure of energy which varies depending on the intensity and duration of the effort. This amount of energy depends on the intensity and frequency of the performed exercise, it can range from 15% for a sedentary person to 30% for an individual whose physical activity is significant.*

- **thermoregulation:** *to keep a constant internal body temperature requires an effort as well, therefore an expenditure of energy. When it is cold, we burn a larger amount of energy.*

- **the specific dynamic action of foods**: *although it may seem strange, a certain amount of energy is spent to perform the chemical reactions that allow us to transform food into useful substances to the functioning of our body...*

What is metabolism?

It is the set of chemical processes in a living organism, which allows it to stay alive and grow.

Food provides us with the material to grow

Man, however, does not only need energy. Let's try and think: how much did we weigh when we were born? And how much do we weigh now? Clearly, in his childhood and adolescence, man

also needs material to enhance and develop his body. Even in his adulthood, when he does not grow anymore, his body tissues are continuing to build (Hair and nail growth are obvious examples, but the internal organs are constantly renewing too). Therefore, together with an energy requirement, a requirement of material needs to be satisfied as well. It is called "plastic requirement".

The function of tissue growing and renewing is defined as "plastic function" of foods.

We are what we eat

The philosopher Feuerbach stated: "we are what we eat". Despite he was clearly referring to the aspects of nature, culture and personality we express with our food choices, it is easy to realize that behind these words there is more than a truth even from a physical point of view: steaks, pasta, eggs, milk... a part of what we eat is converted and used by our body to grow and build new tissues: muscles, blood, bones, ski...

Food protects our body and takes part in the life processes

In order to live in good shape and in good health, however, to meet the energy and plastic needs of the body is not enough. Foods also contain special substances which do not give us energy and which we use neither to grow nor to build our tissues, but they are still essential to ensure full efficiency and avoid the insurgence of diseases and disorders. These substances play an important protective and bio-regulatory function – that is, a function which controls life processes..

The functions of food

* **Energetic function**	Food provides us with the energy we need for internal reactions, for moving and keeping a proper body temperature.
* **Plastic function**	Food gives the body the material to build, restore, replace and repair cells, allowing the growth and maintenance of tissues.
* **Protective and bio-regulatory function**	Food also contains substances that are essential -sometimes in very small amounts- to adjust the processes and activities of the body, making sure that they operate in the best possible way.

NUTRIENTS

So far we have learnt that foods perform different functions: they give us energy and materials to grow and maintain healthy body tissues, they protect us from developing diseases and they adjust our life processes... but how do they perform all these functions? Here is another fundamental question to be answered to add another piece to the mosaic of our knowledge of a healthy eating...

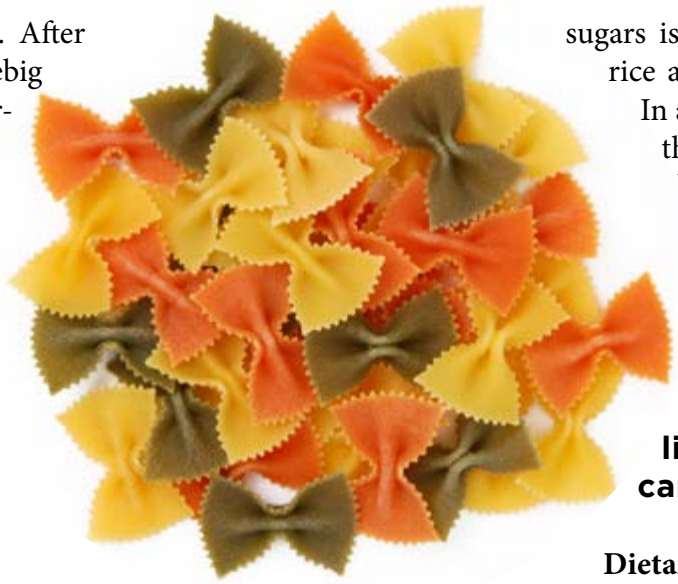
Foods: complex materials

Foods are complex "materials" consisting of many different substances which are called **nutritional components** or nutrients. They are **carbohydrates** (also known as sugars or glucids), **lipids** (fats), **proteins, vitamins, minerals** and **water**. Each of them is essential because it performs a particular function: carbohydrates are our best source of energy, while thanks to proteins we get most of the material needed to build body tissues, and vitamins participate in many vital functions.... But nutrients are an important issue we need to explore togethe…

The discovery of nutrients

Hippocrates, a great physician from the past, thought there was only one key nutrient in every food. This idea endured for many centuries. It was only in the late eighteenth century, that the chemist Lavoisier identified essential factors for human

nutrition in sugars and fats. After more than half a century, Liebig also demonstrated the importance of proteins. Advances in chemistry allowed the identification of vitamins and numerous inorganic salts as well. Understanding the function of these substances produced a huge progress not only in food science, but in overall medicine.



A bit of everything

A healthy diet should provide us with the right quantity of all nutrients:

- *Carbohydrates*
- *Proteins*
- *Fats*
- *Vitamins*
- *Minerals*
- *Water*

Carbohydrates: the main source of energy

Carbohydrates consist of three elements -carbon, hydrogen and oxygen- and mainly have an energy function. Indeed they are the substances that our body easily converts into energy and that it quickly uses when it needs them. One gram (0.03 oz) of carbohydrate is about 4 kcal (16 kj).

Carbohydrates are especially common in foods of plant origin, but also in milk and dairy products, while they are almost totally absent from meat and fish. Carbohydrates are divided into two types, according to their chemical structure:

simple sugars, such as fructose (in fruit) and sucrose (in sugar), which are absorbed directly by the body providing energy for immediate use. Typically, simple sugars have a sweet taste.

complex sugars, consisting of chains of simple sugars joined together. The starch contained in the form of granules in cereals, legumes and tubers, is an important complex sugar. Complex carbohydrates, before being assimilated, must be broken down into their smaller particles and this usually involves a slower and more gradual release of energy. This type of sugars is found in bread, pasta, rice and generally in cereals. In a healthy eating, most of the carbohydrates must be the complex type, whereas we should limit the use of sweets, rich in simple sugars.

Fibers: a little "strange" carbohydrate

Dietary fiber consists of some special carbohydrates contained in plants. Fruits, seeds, stems and leaves of plants contain, to varying degrees, several fibrous substances with difficult technical names: *cellulose*, *hemicellulose*, *lignin*, *pectin*, *gum* and *mucilage*.

Unlike herbivores, humans cannot digest and assimilate these substances, and they were considered essentially useless to the body for a long time. Several decades ago, however, it turned out that even if they do not provide calories and we do not assimilate them, fibers are valuable because they perform several important functions:

- *They improve the intestinal functionality because, when in contact with intestinal fluids, they dilate, increasing the bulk of the stool and stimulating defecation;*
- *They prevent the accumulation of toxic material in the body;*
- *They feed the good bacteria in the intestine;*
- *They help you feel satiated fast, avoiding you to eat too much;*
- *They can slow the absorption of fat and cholesterol.*

Two useful tips

To ensure the necessary amount of fiber

A. Eat at least five servings of fruit and vegetables each day

B. Periodically, try whole grains: pasta, rice and bread.

Proteins: the building blocks of the body

They are the main components of the cell, they adjust every vital activity and have a key role in the growth. They are often compared to the bricks of a house. They represent the "matter" which mainly constitutes muscles, skeleton, blood, internal organs and skin. Unlike carbohydrates and fats, proteins do not have a significant energy function, though they furnish 4kcal/gram (16 kj/0.03 oz). Proteins have a complex structure and are constituted by simpler compounds, amino acids, strung together in a chain. The body is able to synthesize, that is, to build, several amino acids, but not every amino acid it needs. Some of them, called *essential amino acids*, must be necessarily introduced with food. The proteins contained in foods of animal origin are generally rich in essential amino acids and they are therefore said to have a "**high biological value**". Plant proteins, instead, have a lower biological value because they do not contain all essential amino acids. Yet, if we match different plant foods (for instance, cereals and legumes: pasta with beans, rice with peas and other similar combinations) we can achieve a beneficial and nutritionally complete integration.

Amino acids

They are relatively simple substances, containing carbon, hydrogen, oxygen, nitrogen and sometimes other elements. The amino acids are joined together to form proteins. Only about twenty amino acids are important as regards our food supply. From this small group of substances, the body synthesizes all the thousands of proteins it needs, a little like the letters of the alphabet that we use to compose all the words needed for communicating.

Fats: useful in moderation

How many times have you heard the suggestion: "reduce fats!"? As if they were harmful. It may seem strange but even fats (technically it is more correct to call them "lipids") are essential in a healthy diet, provided you do not overdo them. A fair consumption of fats is important for several reasons:

- *They are a good source of energy (one gram -0.03 oz- of fat provides 9 Calories -37 kj-) and make up our fat deposit, which is the cheapest spare source of force for the body, if not excessive;*
- *They are essential constituents of the membranes surrounding the cells;*
- *They help produce several hormones;*
- *They give some essential substances, such as fat-soluble vitamins, the ones we bring in our body which are dissolved in fats.*

When they are too many

In the more industrialized societies, such as ours, diet is generally too high in fat and this causes many disadvantages for health: greater risks of developing a cardiovascular disease, higher tendency to have a high blood pressure (hypertension), accumulation of cholesterol in the arteries, not to mention the risk of gaining weight more easily.

It is important to control your fat intake by reducing the use of seasonings and by choosing leaner foods, such as cereals, vegetables, fruits, lean meats.

Fats, however, are not all the same: first we have to distinguish between "seasoning fats", that we add to improve the taste of foods, and "hidden fats", which we ingest almost without realizing it because they are already contained in foods: in cheese, sausages, meat, eggs... Among the seasoning fats, we must then differentiate those of animal origin (butter, lard, bacon) and plant products (olive, corn, peanut and sunflower oil, etc.). The latter are preferable because they do not contain cholesterol (a substance which increases the risk of cardiovascular disease if excessive in the blood) and they are more rich in fatty "unsaturated" acids, whose presence in the diet exerts a positive effect on controlling the level of cholesterol. Animal fats, instead, contain more or less high amounts of cholesterol and mainly consist of fatty "saturated" acids, whose excessive consumption may result in likelihood of developing arteriosclerosis and heart diseases.

Saturated and unsaturated: bad and good

Saturated fats are also called "bad" fats, because if we eat too much of them they can cause heart and cardiovascular system diseases. Though important for our nervous system, they should be consumed in small amounts.

Unsaturated fats are called "good" fats: in the right quantities, they are allies of heart and arteries and contrast the accumulation of cholesterol. They are contained in plant foods like oils, nuts and they are also found in fish.

Vitamins: our bodyguards

They are different substances in type and structure, but they are essential because each one of them performs a specific regulatory action. Their contribution, even if in small quantities, is absolutely essential because the body cannot build them alone from other substances.

To better understand their function, try to imagine our body as a car engine: a car needs energy to move, it needs fuel, so we need food energy to move. But fuel is not enough for a car to work properly: if we run out of oil, the engine "gets sick" and breaks down. During the winter, the radiator may have a damage if we do not put the coolant.

Similarly, our body, alongside the energetic substances (first of all sugars and fats), needs other "protective" substances that safeguard it against diseases

and allow a healthy life. The most important protective factors are vitamins: some oppose the harmful particles (the notorious free radicals) that form in the body, others improve resistance to infections, some others maintain skin, mucous membranes and bones healthy... Each one of them, in some way, participates in important vital mechanisms and their lack can produce very serious troubles.

The vitamins are divided into two groups: **fat-soluble vitamins** (A, D, E, K) and **water-soluble vitamins** (B1, B2, B6, B12, PP, C, folic acid, biotin, pantothenic acid); the first are dissolved in fatty foods, whereas the latter are dissolved in their watery portions.

They are all contained both in plant and animal foods, often as vitamin precursors, that is, compounds which can be converted within the organism, into the active form of the vitamin.

Water lovers, fat lovers

Water soluble: that dissolves in the water. Some vitamins and minerals are water soluble and are therefore found in high-water-content foods, such as vegetables and fruit.

Fat-soluble: that dissolves in fats. Some vitamins are fat soluble and they are found dissolved in the fatty part of foods, acting as a vehicle for their absorption.

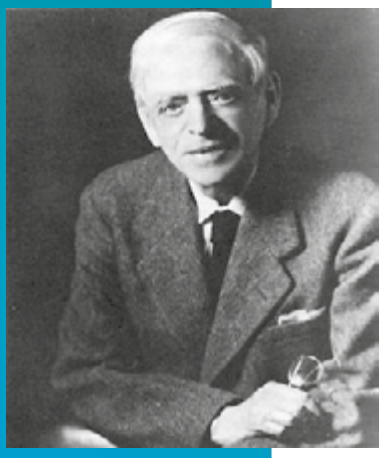
The alphabet of health

Now it is useful to have a closer look at the different vitamins to better understand their importance and to identify the best properties of each...

A name, a story ...

Until just over a century ago, vitamins were completely unknown. Then, in the early 1900s, the Polish scientist Casimir Funk discovered a substance containing nitrogen, called "amine", which he believed to be of great importance for life, so he named it "amine of life", which the name "Vitamin" is derived from.

But since the name of vitamins originates from letters in the alphabet, we need to step back, in 1890, when the Dutch physician Christian Eijkman discovered that a certain substance found in brown rice healed people suffering from beriberi. Originating from the name of the disease, the substance (which proved to be a vitamin thanks to Funk) was called B. As vitamins were being discovered, they took the name from other letters of the alphabet.



➔ Vitamina A (liposolubile)

It protects eyesight, skin and mucous membranes, it promotes growth.

Where it is: *preformata è nel fegato, nel burro, nelle uova e nel latte, mentre i vegetali di colore giallo-arancione (carote, peperoni, albicocche, meloni…) e verde sono ricchi di beta-carotene, sostanza che viene convertita in vitamina A nell'organismo, secondo i suoi bisogni, senza rischi di accumulo.*

➔ Vitamin D (fat soluble)

It allows the absorption and fixation of calcium and phosphorus and it is essential for healthy bones and teeth.

Where it is: *it is found in fatty fish, milk, cheese, butter, egg yolk, but vitamin D can also be synthesized by our body when the skin is exposed to the sunlight.*

➔ Vitamin E (fat soluble)

It protects tissues from free radical damage, harmful particles which are partly located in the environment and partly formed in the body. These free radicals "stress" and damage the tissue, therefore they should be defeated. Not only vitamin E, but also vita-

mins A and C are effective, as to be defined "the free radical scavengers ". In addition, vitamin E is essential to the normal function of muscle and nervous tissue.

Where it is: *in wheat germ, extra virgin olive oil, oilseeds, but also eggs and liver contain a certain amount of it.*

➔ Vitamin K (fat soluble)

It is necessary for blood clotting and wound healing. It is hard to experience a vitamin K deficiency, because it is produced by microbes in the intestine too.

Where it is: *in leafy vegetables, cabbage, liver, meat, milk and egg yolk..*

➔ Vitamin C (water soluble)

It participates in the formation of many tissues of the body, it is a powerful antihemorrhagic agent, it enhances the iron absorption contained in plants, participates in the building of neurotransmitters (chemicals that enable nerve cells to communicate with each other), strengthens the immune system, fights the destructive action of free radicals.

Where it is: *t is abundant in fruit and vegetables, especially citrus, kiwi, peppers, cabbage, tomatoes and green leafy vegetables.*

➔ Vitamin B1 (thiamine) (water soluble)

It promotes the conversion of glucose into energy. It intervenes in the transmission of nerve impulses and helps maintain healthy nerves and muscles.

Where it is: *it is found in almost all foods in small amounts, but it is abundant in cereals, legumes, pork, milk, fish and eggs.*

➔ Vitamin B2 (riboflavin) (water soluble)

It plays an important role in the absorption of proteins, fats and carbohydrates.

Where it is: *he main sources are dairy products, but it is also found in meat, eggs, liver and potatoes*

➔ Vitamin B3 or PP (niacin) (water soluble)

It promotes the use of carbohydrates and the production of energy; it helps maintain a healthy circulatory, digestive and nervous system.

Where it is: *it is found in nearly all foods, especially meat, fish, cereals, mushrooms, potatoes and bread.*

➔ Vitamin B5 (pantothenic acid) (water soluble)

It is part of one of the most important substances (Coenzyme A) for the breakdown and synthesis of nutrients in the body cells.

Where it is: *it is widespread in most foods of plant and animal origin. In particular, in liver, eggs, meat, nuts and wheat.*

➔ Vitamin B6 (pyridoxine) (water soluble)

It is important for the production of hormones, it regulates the balance of amino acids in the body and intervenes in the growth process.

Where it is:*T he best sources are wheat germ, meat, liver, fish.*

➔ Vitamin B7 or H (biotin) (water soluble)

It plays a role in the use of nutrients and helps maintain a healthy skin and hair.

Where it is: *in almost all plant and animal foods. Liver, kidney and egg yolk are very rich in it.*

➔ Vitamin B9 (folic acid) (water soluble)

It takes part in the construction of the gene, in the production of amino acids, in the formation of red blood cells and myelin (the protective sheath surrounding nerve fibers). A deficiency in pregnancy threatens the health of the unborn child.

Where it is: *in legumes and dark green leafy vegetables (spinach, for example)*

➔ Vitamin B12 (cyanocobalamin) (water soluble)

It is necessary for the formation of red blood cells and it is involved in various reactions of the organism.

Where it is: *essentially absent in plants, but abundant in liver, kidney, egg yolks and red meat.*

THE "VITAMIN" KITCHEN

To carefully choose foods rich in several vitamins is essential, but it is equally important to keep them intact. A bad storage or a wrong preparation may indeed result in the loss of much of the vitamin content of foods.

In this regard, here is some valuable advice:

In this regard, here is some valuable advice:

➔ **Consume fruit and vegetables as soon as possible. If you expect not to eat them within a week from the purchase, choose frozen foods.**

➔ **Avoid, whenever possible, to cook vegetables and eat them raw instead.**

➔ **Choose steaming or pressure cooking instead of boiling.**

➔ **Do not dip fresh vegetables into water for a long time.**

➔ **Store extra virgin oil in the dark.**

Minerals, a major role

Minerals are other important factors for our health. We could say that our body is a kind of a mine: it hosts deposits of iron, copper, salt, even precious metals like gold and silver. Obviously in the blood and in several liquids and tissues, we do not find the metal itself, but the chemical elements in the form of mineral salts. Some are found only in trace amounts; others, like calcium, have a great presence: 1.2 kilos (2.64 lb)!

Like vitamins, minerals are involved in many vital processes necessary for a proper growth, development and health. Yet unlike other substances, no mineral can be self-produced by the body, and we have to get them with food each day. We find them everywhere: in dairy products, eggs, meat, nuts, vegetables, fruits, legumes, cereals...

Macro and micro...

Speaking of minerals, we have to make a distinction between two types: macro and micro elements. If the body requires more than 100 mg (0.003 oz) per day of a mineral, the substance takes the name of macroelement (from the greek macro = large). The main macroelements are: calcium, phosphorus, sulphur, potassium, sodium, chloride, magnesium.

If the body gets less than 100 mg (0.003 oz) per day, the substance is called a trace element. Among the trace elements essential for your body to grow we find: iron, copper, zinc, manganese, selenium.

Up close

Minerals are all contained in both plant and animal foods in varying degrees, therefore a complete and diversified diet gives the possibility of absorbing the amounts required by the body. But it is worth having a closer look because, in our diet, we usually leave some of them out.

➔ Calcium

A fundamental constituent of bones and teeth, it is also vital for nervous and muscle functions and essential for blood clotting. It helps the body metabolize iron, vitamin B12 to be absorbed and it is essential to the immune system, which protects us from diseases.

Where it is: *dairy products, oily fish, legumes, tofu, green leafy vegetables, broccoli, nuts (especially almonds and sesame)*

➔ Iron

It is a component of red blood cells, it carries oxygen in the blood, strengthens the immune system, protects against dangerous free radicals.

Where it is: *fliver, dark chocolate, egg yolk, legumes, red meat (especially horse meat), wheat germ, spinach, nuts and broccoli.*

➔ Magnesium

It helps to repair and protect the cells, it is important for hormonal activity, it balances calcium, sodium and potassium and has an essential role in muscular activity (mainly the heart) and in the transmission of nerve impulses. It is also crucial for the bone development.

Where it is: *rice, whole grains, legumes, soy, nuts, bananas, spinach and green leafy vegetables, brewer's yeast and bitter chocolate.*

➔ Phosphorus

It forms bones, teeth and cell membranes, it is important for nervous and muscle functions, it activates B vitamins.

Where it is: *milk and dairy products, nuts, whole grains, fish, meat, eggs and legumes.*

➔ Sodium

It keeps the blood pressure and the transmission of nerve impulses under control, it is important for balancing with water.
Where it is: *table salt, milk and dairy products, fish, eggs, spinach, meat and bread*

➔ Potassium

It participates in the transmission of nerve impulses, heart rate, energy supply, building of proteins and nucleic acids (molecules critical to the life of cells) and in muscle contraction.

Where it is: *green leafy vegetables, legumes, bananas, dried fruit, chestnuts and potatoes.*

➔ Chlorine

It is important for the water balance (along with sodium and potassium), it is a constituent of the gastric juice and an effective help for digestion.

Where it is: *table salt, fish and meat.*

➔ Iodio

It is very useful for the proper functioning of the thyroid (a gland which controls metabolism and body growth). It promotes healthy skin, teeth, nails and hair.
Where it is: *iodized salt (fortified with iodine), algae, fish, pineapple, dairy products, shellfish, eggs, green leafy vegetables.*

➔ Fluoro

It is good for bones and against teeth caries: it makes the enamel more resistant to demineralization, preventing the decay process.
Where it is: *water, tea, seafood, whole grains.*

Some useful tips

In order not to run out of iron:

➔ Include a fair amount of meat, fish and eggs in your diet: they contain iron easily absorbed by the body;

➔ Consume fruit rich in vitamin C, it helps absorb the iron found in plants.

To refuel iodine:

➔ Eat fish often

➔ Use iodized salt in place of normal salt for seasoning

Water, the essence of life

Although it does not provide calories or play a plastic function, water is definitely essential. Just think that we can survive 80 days without eating, but we cannot live for more than 3-4 days without drinking at least some water.

We can live for weeks without food, but we cannot live more than 3-4 days without ingesting some water.

Its vital importance is linked to several factors:

➔ **It is the main constituent of the human body.**

About 2/3 of our body are made of water, a value which varies with sex, body composition and age: in the newborn, the percentage is 75%, while in women the water accounts for about 50% of their total weight.

➔ **It is the environment where all vital reactions take place.**

It is necessary for digestion, absorption, circulation, excretion, tissue construction. It keeps good hormonal balance and ensures proper kidney function; it also preserves the joints, lubricates the eye and lung tissues and protects the fetus during pregnancy..

➔ **It is involved in regulating body temperature.**

In summer, when you sweat, water evaporates on your skin to extract heat from the body, cooling it.

➔ **It allows nutrient transportation.**

Through the blood and the lymphatic system, water carries nutrients and oxygen to cells; also, the water itself contains dissolved precious minerals, such as calcium and iron.

➔ **It detoxifies the body.**

Water eliminates waste products through sweat, urine and feces. The water we lose every day (2 to 3 liters) (122 to 183 in3) must be readily replenished so as to maintain a constant water balance in the body. It only takes a drop by 2-3% in body water to cause fatigue and nervousness.

Every day we eliminate a certain amount of water through feces, urine, sweat and respiration; this quantity must be replenished so as to maintain a constant water balance in the body. Apart from drinking, the water we need every day comes in large part from solid foods, in particular from vegetables and fruit that contain a lot of it.

Dispelling some myths

Does drinking before eating reduce the appetite?

Yes, it does. Drinking water does not provide calories and allows you to feel less hungry, not so much because water fills your stomach, but because thirst and hunger are closely related, therefore drinking water reduces your appetite.

Can I drink only between meals?

No, indeed an adequate amount of water (500-700 ml) (16-23 us fl oz) is useful for promoting digestive processes, because it improves the texture of the foods ingested.

LET'S MEET THE FOOD

Being aware of what our body needs and knowing the nutrients is useless, if we do not know which foods contain these same nutrients.

For this reason, researchers dealing with nutrition have devoted much time and effort to analyze the nutrient composition of foods and have been publishing tables which show the composition of hundreds of different foods in an extremely analytical and detailed way. In everyday practice, however, it is not necessary to turn to these tables. It is much more convenient to keep in mind a mental classification of foods divided into groups according to their main nutritional characteristics.

What is a food?

Food is any edible substance that contains at least one nutrient, that is chewable, easily digested and absorbed by the body and that does not contain toxic substances. Foods are classified in five groups based on their nutrient composition:

- ➔ **Meat, fish, eggs and legumes**
- ➔ **Dairy products**
- ➔ **Cereals, their derivatives and tubers**
- ➔ **Oils and fats for seasoning**
- ➔ **Fruit and vegetables**

Meat, fish, eggs, legumes

This group includes all fresh and salt-cured meat, fish products and eggs, foods that provide proteins of high nutritional value. They are, therefore, the plastic foods par excellence, although they do provide great quantities of minerals (iron, for example) and vitamins (especially group B). This group also includes legumes which are the vegetables with the highest amount of proteins. Beans, peas, chickpeas, lentils and broad beans play a good plastic function, especially if associated with cereals. Legumes provides the body with minerals (iron, calcium, zinc and copper), dietary fiber and B vitamins as well.

Eat more fish

Fish is an excellent source of noble proteins, as important as meat. It is rich in useful minerals such as phosphorus, calcium and potassium, and it also contains iodine, a generally insufficient element that

is essential for thyroid to function properly. Even in terms of digestibility, fish has nothing to envy to meat: poor in connective tissue (the hard tissue that holds the muscle together), we chew it easily and our gastric juice digests it faster.

But the trump card of fish is its particular fat composition, which presents a different and better quality than meat's. Fish has a high quantity of famous omega three fatty acids, whose virtues discovered by science continue to reveal still now.

Milk and dairy products

Milk, yogurt and cheese are the richest source of calcium, a key component of the bones, and they provide proteins of high nutritional value, fat and some vitamins (A, B2).

Cow's milk is the most widely used and it is classified according to the percentage of fat (whole, semi-skimmed, skimmed) and the methods of conservation (raw, pasteurized, high-quality, long-life or UHT, micro-filtered).

Milk: a valuable food

Milk is not a complete food, as many claim, but it definitely has many positive features. One liter (61 in3) contains about 35 grams (1.23 oz) of proteins (as a 170 gram -6 oz- steak), it gives a great deal of calcium, easily digestible fats and a great amount of vitamin A. If you add a good content of phosphorus, vitamins of group B and lactose, an easily assimilated energy source, you must admit that it would be a shame to give up so many virtues concentrated in one food.

Cereals, derivatives and tubers

Rice, bread, pasta, corn, flour, breadsticks, rusks, crackers, along with potatoes, are the main source of energy for the high content in complex carbohydrates (starch), and they are cheap. Cereals, however, also contain vitamins, especially B1 and B2, and a significant proportion of proteins (8-12%) which have not, however, a high nutritional value, unless you match them with legumes.

Eating whole grains

Even if wheat, rice, corn, barley grains have different shapes, they actually show the same structure: retaining a germ rich in valuable unsaturated fatty acids, cereal seeds are covered with a fibrous outer layer. There is also an inner layer, rich in proteins and vitamins, which wraps the most significant mass of the grain, mainly consisting of starch. Proteins, vitamins, fibers, minerals, fatty acids... cereals have a well-respected nutritional profile. Unfortunately, we use it partially because we mostly consume it after being refined. The refining process, that results in white flour, rice and so on, consists precisely in eliminating the germ and the outer parts of the grains. We refine cereals because products last longer and they better meet the taste of consumers, but there is no doubt that whole grains, with all their components, have a higher nutritional value.

Fats to season

Butter, margarine, lard, olive oil and seed oil are another important source of energy, as well as of fat-soluble vitamins (A, D, E). Dietary fats are liquid, such as oil, or solid, like butter.

Oils may be of plant origin (such as olive, extra virgin olive, seeds, sesame, peanut, sunflower, corn and castor oil) or of animal origin (such as fish and cod liver oil). Butter, instead, is a product obtained from milk cream, getting all the excess water out.

The extra virgin olive oil: a very interesting food

A symbol of the Italian gastronomic tradition and a milestone in the Mediterranean diet, olive oil is undoubtedly one of the best seasonings. Besides being good, it also contains different nutritional qualities, to such an extent that, in the 1960s, the researcher Angel Keys called him a "longevity factor":

- ➔ *It avoids the accumulation of LDL cholesterol, harmful to the body, and does not affect HDL cholesterol, the "good" one, which cleanses the blood of bad fat.*
- ➔ *It has a balanced composition because it contains unsaturated and polyunsaturated fat in a perfect ratio: in particular, two special fatty acids, the linoleic and linolenic ones, called "essential fatty acids" because our body is unable to synthesize them from other food components as if they were vitamins.*
- ➔ *It fights free radicals, thanks to the strong antioxidant power of vitamin E.*
- ➔ *It helps the liver, because it promotes the contraction of the gall bladder (a vesicle that stores the bile) and prevents the bile to stagnate, avoiding the dangerous formation of gallstones.*

When doing shopping, it is important to choose the "extra virgin" type of olive oil, the only one that holds all the described virtues because it does not undergo any chemical refining treatment.

Fruit and vegetables

They are very important foods because they are particularly rich in vitamins, minerals and fibers. They may be divided into two large groups according to the supply of vitamin "A" and "C".

Vegetables rich in vitamin A include green and yellow vegetables (carrots, beets, chicory, lettuce, spinach, pumpkins...) and yellow-orange fruit (apricots, melon, persimmon ...). In addition to vitamin A, held in the form of its beta-carotene precursor, these vegetables can also provide interesting amounts of other vitamins and minerals (such as potassium, phosphorus, iron, magnesium, calcium). They are rich in fibers and they are generally composed of few calories.

Vegetables rich in vitamin C are mostly red and bud vegetables (tomatoes, peppers, cauliflowers, broccoli) and acidulous and acidulous-saccharine fruit (oranges, tangerines, lemons, grapefruits, pineapple, strawberries, kiwi, raspberries...).

SO MANY GOOD REASONS TO EAT VEGETABLES...

Rich in water, vitamins and minerals, vegetables give very few calories, provide a good amount of fibers and virtually contain no fat. Thanks to this particular composition, a huge consumption of vegetables leads to several health benefits:

➔ *It becomes easier to control your body weight, with a reduced risk of hypertension, diabetes and heart attack that are associated with overweight and obesity (indeed, vegetables are an important part of diets to lose weight).*

➔ *The high presence of fibers fights constipation, prevents some intestine diseases, such as diverticulosis, and slows down the absorption of fats and sugars.*

➔ *The huge amount of vitamins A, E and C counteracts the infamous free radicals, responsible for the onset of some cancers. In particular, the top foods to fight cancer are cabbages, broccoli and Brussels sprouts, which seem to offer protection against colon, rectum, stomach and lung cancer.*

➔ *The high content of water and minerals helps the body rehydrate and maintain the salt balance, especially in warm periods, when you sweat more.*

SO MANY GOOD REASONS TO EAT FRUIT...

As for health benefits, fruit has nothing to envy to vegetables, so much that the suggestion to eat more is also included in the handbook drawn up by the EU to prevent cancer and other "wellness" diseases. Why is fruit so good for health? Again, there are many reasons:

➔ *As vegetables, it contains a lot of water, satiates and gives few calories, thanks to the great amount of fibers and the low-fat content.*

➔ *It provides simple sugars, very fast to assimilate and to use for producing energy. Moreover, fructose, or fruit sugar, can be consumed by diabetics, because the body does not need insulin to use it.*

➔ *It is rich in vitamins, useful to the body for their protective role. Two in particular: vitamin C, recommended even for the simple prevention of flu or cold, and vitamin A (beta-carotene), an antioxidant which protects eyes, mucous membranes and skin.*

➔ *It helps maintain the proper acid-base balance in the blood. While animal foods tend to increase the acidity, fruit helps to neutralize it. Paradoxically, the acidic substances it contains (such as ascorbic acid and malic acid) give it this capacity. They are indeed weak acids in the body transformed into salts with antacid effect.*

➔ *It is rich in potassium and low in sodium. Potassium plays an important role in maintaining proper blood pressure and it is critical to the proper functioning of the heart and muscles.*

THE DIET

We focused on the needs of our body and we now know which foods contain the nutrients... Now it is necessary to establish quantitative criteria: how many carbohydrates, fats and proteins do we need to take every day so that our diet is complete and balanced? This is another major issue that has long been investigated by nutritionists who, after many studies and researches, have identified patterns of consumption that each one of us should take as a reference for organizing our daily diet, making sure that we eat enough and in a balanced way, in accordance with our tastes.

A perfect balance

With its last analysis in 2012 on the RDAs -tables showing the reference levels for the intake of energy and nutrients-, the Italian Society of Human Nutrition (SINU), suggests that 45-60% of the daily energy intake should come from carbohydrates (mostly complex), 20-35% from fats (mostly unsaturated) and that the remaining share of energy should be ensured by proteins. In this framework, carbohydrates must be composed by 3/4 of complex carbohydrates (starch) and 1/4 of simple sugars (sucrose, glucose, fructose ...). The proteins of plant origin (cereals and legumes) must be more than the ones derived from meat or eggs, and the consumption of vegetable fats must exceed that of animal fats. Such a subdivision, however, is very theoretical and useless, if it is not followed by practical indications. And this is just why it is very useful to refer to the model of the food pyramid, which shows a precise idea of how a healthy diet should be planned according to the criteria of the Mediterranean diet, recognized as a model of healthy eating worldwide.

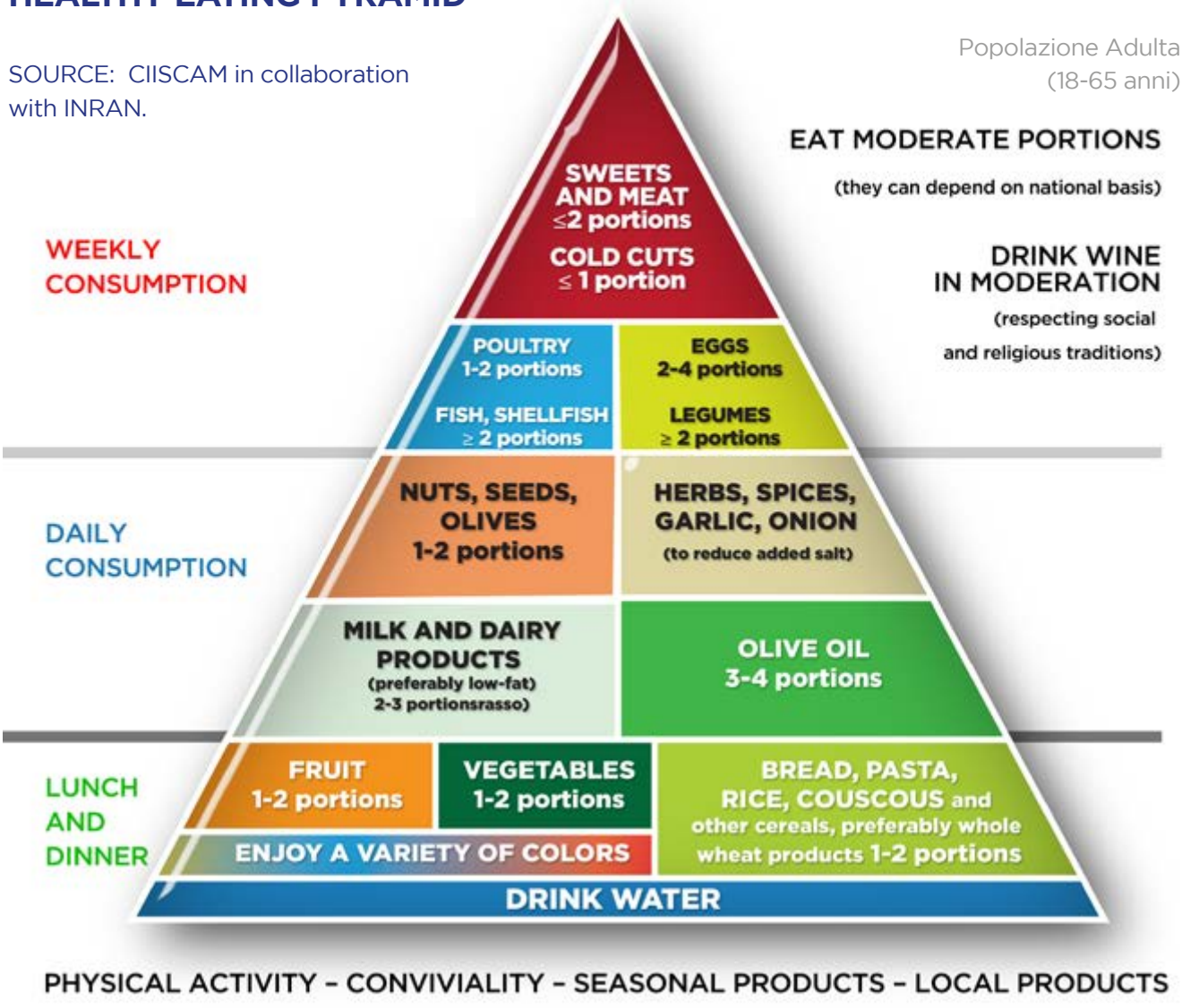
The Mediterranean diet and the pyramid of health

About 35 years ago, an American special commission was appointed to develop a model of healthy and natural diet to fight the so-called "wellness diseases", such as diabetes, arteriosclerosis, hypertension, obesity and cancer. An eating pattern was developed, then compared with the eating habits of the major industrialized countries. Surprise: the "ideal" diet developed by American experts was quite similar, in terms of quality and quantity, to the Italian and Mediterranean diet in general. Since then, the so-called "Mediterranean diet" has been taken as a model of health to inspire people to follow a diet for maximum physical and mental wellbeing.

To represent the criteria at the basis of the Mediterranean diet, we should better use the model of the Food Pyramid. There are many interpretations and the one we propose here, one of the most recent, is also one of the most comprehensive. It places foods that make up a main meal at the base and, gradually upwards, other foods necessary to complete the meal, distributed depending on whether the frequency of consumption is daily or weekly recommended. At the base of the pyramid we find cereals, vegetables and fruit, or plant foods recognized as the foundation of a healthy diet, while at the summit - to be consumed in moderation - we have cold cuts, meat and sweets.

HEALTHY EATING PYRAMID

SOURCE: CIISCAM in collaboration with INRAN.



Directions to keep a high level of well-being are all contained in the model of the pyramid. They can be summarized in a few key words, so important to apply as easy to remember:

Physical activity: o regularly work out is fundamental not only to burn more calories, but also to tone your muscles, strengthen your bones and ensure a metabolic balance which is the basis of physical and mental wellbeing.

Conviviality: for man, eating is much more than satisfy a physiological need, and conviviality, to enjoy together the pleasure of food, should be considered in effect an important element of health.

Seasonal products: it is another concept essential for our wellbeing and for the environment. No doubt, in fact, that the maximum flavor and health are concentrated in products that reach the right maturity according to the rhythms of nature, in the open air, enjoying the sun and the natural goodness of the soil.

Local products: here is the fourth secret of health, which is rooted in the simple idea that food keeps better its characteristics when its place of production is close to the one of consumption.

Then the pyramid gives other useful advice to opt for as daily eating habits:

- ➔ *Drink plenty of water*
- ➔ *Diversify the colors of fruit and vegetables*
- ➔ *Drink wine in moderation (and definitely adults only)*
- ➔ *Eat moderate portions.*

In short: frugality and genuineness are the baselines to find your own path to wellness at the table.

BUT WHAT IS A PORTION?

Beyond its easy to memorize layout, the practical utility of the food pyramid is also linked to the fact that, instead of talking about calories and nutrients, which are difficult to assess in our daily life, it is based directly on the food, indicating the portions we should eat. To make the model of the pyramid even clearer, what follows is the concrete equivalence of the average portions to be consumed for some of the most common foods.

food group	food	portion (g) (oz)
MILK AND DAIRY PRODUCTS	milk	125 (one glass) (4.4)
	yogurt	125 (one jar) (4.4)
	fresh cheese	100 (3.52)
	seasoned cheese	50 (1.76)
MEAT, FISH, EGGS, LEGUMES	fresh meat	100 (3.52)
	processed meat (cold cuts)	50 (1.76)
	fish	150 (5.29)
	eggs	60 (one egg) (2.11)
	dried legumes	30 (1.05)
CEREALS AND TUBERS	bread	50 (1.76)
	bakery products	50 (1.76)
	pasta or rice (*)	80 (2.82)
	fresh egg pasta (*)	120 (4.23)
	Potatoes	200 (7.05)
	(*) in a soup, portion is halved	
VEGETABLES AND FRUIT	salad	50 (1.76)
	vegetables	250 (8.81)
	fruit or juice	150 (5.29)
SEASONINGS	oil	10 (one table-spoon) (0.35)
	butter	10 (0.35)
	margarine	10 (0.35)

The ideal day

The eating pattern which best satisfies the needs of the human body is: eat little and often. Except for night, when you sleep, the body should not be left without food for more than 3-4 hours and the ideal would be to split your meals at least into five: breakfast, lunch, dinner, a mid-morning and a mid-afternoon snacks. As you can see in the table, the main meal is lunch, but in moderation: it should provide you with about 30% of your daily calories, which is about 600 kcal (2.512 kj) for a child who eats a total of 2,000 kcal (8.373 kj) each day. Breakfast plays an essential role and snacks should not be considered as mere fillers while waiting for the main meals, since they can play a nourishing role, provided that they harmonize with the rest of the diet. Finally, dinner should be a little lighter than lunch, however it has to be rich and nourishing in view of the overnight fasting. This sorting, which is a little technique if expressed in terms of calories and percentages, may be much more understandable if you consider the nutritional role each meal should represent for your body.

Hunger and satiety: two major components

Our brain holds two important nervous system, the "hunger" and "satiety" centers. When glucose level in the blood decreases too much (sugar is our fuel), the center of hunger leads us to eat; conversely, when we finally eat a sufficient amount of food, the stomach walls relax, the level of sugar in the blood increases and signals that trigger the satiety center are transmitted. If we respect a regular rhythm with our meals, these centers coordinate better and more efficiently with each other.

The five meals of the day

For a perfect balance, total daily calories should be distributed as follows among the different meals:

Meal	Approximate timetable	% of daily calories
Breakfast	7.30 a.m.	20-25%
Snack	10.00 a. m.	5-10%
Lunch	1.00 p.m.	30-35%
Snack	4.30 p.m.	5-10%
Dinner	8.00 p.m.	25-30%

Breakfast: a good start

As we already said, we burn calories even when we are sleeping. So, after an overnight fasting of 9-10 hours, the body absolutely needs to refuel, to face the labor of the day that awaits it.

A little milk is not enough: breakfast must be a full and light meal that provides energy, but also useful nutrients such as proteins and minerals.

How it should be

A perfect breakfast should always include::

- *Milk or yogurt, important sources of calcium and protein. The best milk is fresh, pasteurized, high quality. The perfect yogurt is white, with no preservative or sugar added (you can add fresh fruit if you want).*
- *A food rich in carbohydrates, to ensure easily assimilable energy. Bread, biscuits, cereal flakes, puffed rice and muesli are fine. The practicality of cookies makes them the most common solution, but we must be careful in choosing them: the most suitable ones for breakfast are lean, digestive or dunking biscuits, preferably produced without hydrogenated fats.*
- *A fresh seasonal fruit to ingest a fair share of vitamins and fibers.*
- *A beverage, especially if you do not drink milk, to integrate the necessary fluid intake. Tea, 100% fruit juices and freshly squeezed juices are perfect.*

If you start off on the right foot...

Breakfast is the key moment of the whole day. A boy having a good breakfast will not get much hungry at midmorning and he will taste his lunch. For this reason, in the afternoon he will just have a light snack so as not to starve before dinner.

If he starts off on the wrong foot in the morning, skipping breakfast, he will get hungry well in advance, he will overeat in the morning, almost skip lunch and then get very hungry again in the afternoon. Not only does this habit cause tension at mealtime, but also it reflects on the health in a negative way, because if you focus on snacks you will end up overlooking the really important foods such as meat, fish, vegetables and fruit.

Mid-morning snack: a light meal

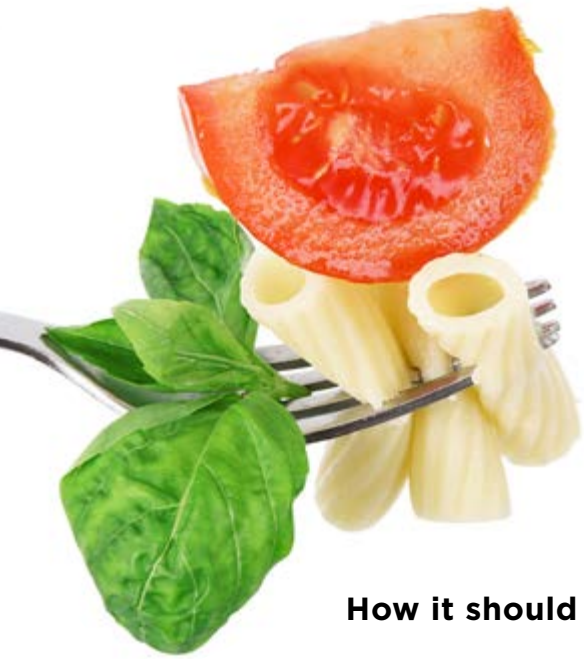
When it is mid-morning, guys who have a small breakfast may experience a decline in attention and some mental fatigue, due to the excessive reduction of blood sugar (hypoglycemia). The fuel for the brain disappears. In order not to go into starvation mode, it needs a snack rich in simple sugars (fast assimilation and relatively low in protein and fat, more difficult to digest).

How it should be

No sandwiches, fried sweets or savory snacks: a 100 g (3.52 oz) bag of chips (over 500 kcal -2.093 kj-!) consumed at mid-morning reduces the appetite during many hours without providing useful nutrients. A simple bag of crackers (better if unsalted) and a juice are enough to give the necessary energy without ruining your appetite for lunch. Better still if the fresh fruit has a major role in the snack. In this regard, the current appearance on the market of fresh fruit snacks in single-serve pouch, cleaned and vacuum, should be greeted with interest and approval. It is a greedy and one of the healthiest proposals.

Lunch: principally carbohydrates

The lunch time is the central meal of the day. Its function is to replenish the energy expenditure but above all provide the body with a series of nutrients essential to its health: vitamins, salts, fibers, fats, proteins and carbohydrates, which should be the main constituent of the menu..



How it should be

➔ *Lunch does not necessarily have to include a first course, a main course, side dishes and fruit. And there is no need to worry if your children do not finish the entire menu at school. It would be too rich even for an adult. It is better to focus on a smaller number of courses, preferring a first course: it is rich in starch and brings a good amount of proteins and fats. Pasta with meat sauce, for instance, or lasagne or rice with beans would be fine. A serving of fresh vegetables or a rich serving of fruit will do then complete the necessary intake of nutrients.*

Mid-afternoon snack

As the mid-morning snack, the snack in the afternoon is a small ration to replenish the expended energy. It must be a light meal with the right amount of carbohydrates. Do not forget to drink as well, to maintain a proper water balance.

How it should be

➔ *Green light to fruit juices and blended juice drinks, rich in vitamins and minerals, combined with a slice of pie or a good packaged snack. These may be an appropriate solution if you have the foresight to choose them carefully. The most useful reference is the label, especially the nutrition facts, that all industry professionals should report and which informs you about the actual content in nutrients.*

Here are some tips:

- *Check that the snack does not provide too many calories. An acceptable limit, considering the nutritional needs of children, is 200 Kcal (837 kj) for each snack.*
- *Check the amount of the fat: lower is better. A snack should contain no more than 9-10 grams (0.31-0.35 oz) of fat.*
- *Check the list of food additives and choose products containing less quantities.*

Dinner, get ready for bedtime

Dinner in the evening complete the intake of energy and nutrients in order to prepare the body for resting. The digestibility is, therefore, a fundamental requirement, as well as a sufficient amount of protein foods, because

at night the body is less likely to use proteins for energy purposes and it destines them to their own natural purpose: as a material for the growth and regeneration of tissues.

How it should be

- *Dinner has the same principle of lunch: a full menu with a first course, a main course, side dishes and fruit can be too much for many children. The ideal here is to focus more on the main course, choosing fish, eggs or lean meats served with vegetables and bread (instead of pasta). An equally valid alternative is an all-in-one course that does not scare kids with little appetite because it contains the whole meal in one dish. Vegetarian or ham and cheese quiches are really perfect to end the day in a light but nourishing way. If before sleeping your child asks for some milk, there is no reason to deny his request.*

What to drink? Water!

Too often, when it comes to nutrition, we do not take sufficient account of what we drink. But we are well aware that replenishing lost fluids is a request from the body: even a 2-3% loss in body hydration can accentuate the sense of fatigue, while a higher deficit can produce serious illnesses, such as the dreaded heat stroke. So you should drink often, but also "drink healthy" and the wide range of drinks on the market leads you to have some embarrassment in the choice...

However there is no doubt: water is the most natural and healthiest drink. It gives no calories, it refreshes, quenches your thirst, hydrates your body and helps restore its salt supply.

Mineral or tap water? If the latter is fresh and good, there is no reason to keep it out: it is hygienic and safe and its composition is often excellent. You can check it (it is free and often available also via the Internet) and make sure of some characteristics which make it really ideal for daily consumption:

- The total content of minerals (fixed residue) should be 500 mg/l or less.
- It should have a minimum concentration of nitrates (NO3-), 10 mg/l or less.
- It should have a slightly acidic pH, ranging between 5.7 and 6.7, which helps the digestion.

If tap water does not taste good or it fails to meet these criteria, then it may be worthwhile to choose mineral water, carefully reading the label to make sure it still meets the described requirements.

The choice between sparkling and still is a matter of taste: the bubbles do not act on the properties of water, they only make it more palatable.

Soft drinks: tasty but...

The carbonated soft drinks, such as orange soda, lemon soda, cola, fizzy drink, are all united by an unhealthy nutrient profile: they give too many calories (about 130 -544 j- for a can) and contain a lot of sugar (more or less 10 tablespoons in a liter -61 in3-!), as well as inadvisable additives (flavor enhancers, acidulants, preservatives, coloring agents...). To mask the excessive sweetness, they often contain large amounts of acids that may damage the tooth enamel and irritate the stomach. In addition, these drinks are not really refreshing: the high sugar content means that, after the effect of momentary relief, one is immediately impelled to drink more. In short, drinking one can occasionally is not so bad, but these drinks cannot be the usual choice during the day.

LASTLY: EXERCISE!

Eating healthily is important, but it is not enough to achieve a perfect well-being.

There is no doubt, at any time of the year, healthy exercise creates so many benefits for the body and mind:

- ➔ **It improves respiratory capacity and blood circulation**
- ➔ **It tones up muscles**
- ➔ **It strengthens bones and joints**
- ➔ **It promotes body detoxification**
- ➔ **It improves the function of the intestine**
- ➔ **It helps to release stress and predisposes to a more peaceful sleep**

And there is no need to practice competitive sports to enjoy these benefits: the secret to feeling good, toned and fit at any age is based on a regular exercise, but without overexertion or excessive intensity… 3-4 times a week, enjoy a nice bike ride or an hour of brisk walking or swimming: it is enough to make you stay fit in the most pleasant way.

Physical activity, what is it?

According to the World Health Organization, physical activity is defined as "any bodily movement produced by skeletal muscles that requires energy expenditure".

This definition embraces not only sports but also simple everyday activities such as walking, cycling, dancing, playing, gardening and doing housework.

A sedentary lifestyle is a risk factor for cardiovascular diseases, overweight, obesity, diabetes and cancer. So regular exercise is one of the most important factors for maintaining good health..

Some good advice

- ➔ **Go to school on foot or by bicycle.**
- ➔ **Get off the bus one stop earlier.**
- ➔ **Arrange a walk with friends or a run in the park.**
- ➔ **Take the stairs instead of the elevator.**
- ➔ **Do some gardening or housework.**
- ➔ **Play with your siblings..**

Physical inactivity: the enemy of health

Sitting long at a computer, watching television for hours as if you were hypnotized is not good for your health: it increases the chances of gaining weight and it does not help you grow healthy. Two hours a day in front of a screen can be an acceptable amount of time one should better not exceed.

Nutrizione: enjoy tasting!

THE ENCYCLOPEDIA OF A HEALTHY DIET

Editing:	Giorgio Donegani, Evelina Flachi
Design and layout:	Cristiano Michelangeli

Contributions:

Scientific collaboration:	Francesco Leonardi
Layout and scientific coordination:	Evelina Flachi
Editorial coordination and development:	Giuseppe Carlotti N3 Communication
FEI coordination:	Cristiano Sandels Navarro

First Edition April 2014

This work is created thanks to the educational support of Abbott S.p.A.

Producing a book or any other educational work is complex, since it requires numerous contributions and controls: of texts, images and the relationships between them. Experience suggests that it is almost impossible to publish such a work without making any mistake. We would be grateful to users who want to inform us about it.

For any suggestion or feedback on this work, please write to:

Fondazione Italiana per l'Educazione Alimentare.
Via N. Bixio, 4-20129 Milan

Email: **info@foodedu.it**

www.foodedu.it

NUTRITION:
ENJOY
TASTING!

FOOD
EDUCATION
ITALY

FONDAZIONE ITALIANA EDUCAZIONE ALIMENTARE

With the
educational
support of:

Abbott
A Promise for Life

enthree
global communication

kris!art
creative studio
www.krisartstudio.com


HEALTH IS
A LIFELONG PURSUIT
TURNING SCIENCE INTO CARING
Every stage of life comes with its own health challenges—challenges which Abbott has been helping people overcome for more than 125 years. Our diverse products span the healthcare needs of all ages—from science-based nutrition and essential medicines to world-class diagnostic systems and life-changing medical devices. abbott.com
Abbott
A Promise for Life