

Keep an eye on your protein intake

Definition and roles of protein

Proteins are molecules made up of a sequence of amino acids that play key roles in the body:

- **A structural role** at the muscular and cutaneous (skin) level;
- **Roles in many physiological processes:** muscle contraction, immune response (antibodies), transporting oxygen through the body (hemoglobin), digestion (digestive enzymes).

Like fats, some amino acids can be synthesized by the body, while others, called essential amino acids, must be provided by food. **The quality of a protein depends on its amino acid composition and their proportions.** If an amino acid is missing or if the quantity of amino acids is inadequate, we talk about a limiting factor, as this limits protein synthesis in the body.



protéines animales



protéines végétales

The two types of proteins

There are two types of proteins of differing nutritional quality:

- **Animal proteins** are relatively rich in essential amino acids and therefore are of better nutritional quality. The main sources of animal proteins are meat, fish, eggs, milk and dairy products.
- **Vegetable proteins** can have a limiting factor when it comes to certain essential amino acids, so they are said to be of poorer nutritional quality. They are also a little harder to digest. Sources of vegetable proteins are legumes and products made from them, nuts and cereals.

DID YOU KNOW?

IMPROVING THE QUALITY OF VEGETABLE PROTEINS

The quality of vegetable proteins can be improved through eating **complementary proteins**. To do this, combine vegetable proteins to get the characteristics of an animal protein and therefore avoid the limiting factor. The simplest way to do this is to eat legumes and grains in the same meal (corn and kidney beans, rice and lentils, semolina and chickpeas). This is especially important for vegans, who need to pay close attention to the quality of their protein intake.

How can you keep an eye on your protein intake?

- **Vary protein sources** by alternating throughout the week between meat, fish, eggs and legumes.
- **Limit your consumption of red meat and deli meats**, mainly because of their high levels of saturated fat and salt.
- **Plan meals without animal protein during the week** and choose plant sources that contain more fibre and less saturated fat.
- **Eat conventional portions**, as you don't need to eat large quantities of protein to meet your body's needs.
- **Check the quality of the meat substitutes you choose.** Many imitation meat products are highly processed and are high in salt/sodium, sugar or saturated fat. Read food labels to make the best choices.

DID YOU KNOW?

Some fish may contain pollutants, especially large fish (swordfish, marlin, pike, salmon, tuna, bass, etc.). It is therefore recommended that you vary the type of fish you eat, choose small fish (sardines, mackerel, herring, etc.) and, when possible, choose sustainably harvested fish.

Advice for vegetarians and vegans

	VEGETARIANISM	VEGANISM
Definition	A dietary practice that excludes meat, fish and seafood. Eggs may or may not be included.	A dietary practice that excludes all animal products (meat, fish, seafood, eggs, dairy products and honey).
Advice	Vary protein sources by eating eggs, dairy products and vegetable proteins while being sure to combine legumes and starches in the same meal.	The main risk is vitamin B12 deficiency, as B12 is found in animal products. Iron, calcium or vitamin D deficiencies can also arise. It is therefore recommended that you get regular medical check-ups; in some cases, you may need to take dietary supplements. Talk to your doctor.

GOOD TO KNOW:



The different types of iron

As with proteins, there are two types of iron that are more or less well absorbed by the body:

- **Heme iron:** found in animal products, it is well absorbed by the body and is therefore the best source of iron. Sources: meat (especially red meat and organ meats), poultry, fish, seafood.
- **Non-heme iron:** found mainly in plants, it is not well absorbed by the body, as plants also contain substances that limit the absorption of iron (tannin, phytic acid, etc.). Sources: legumes, grains, seeds, fruits and vegetables, etc.

A few tips for increasing iron absorption

- **Eat foods that are rich in vitamin C:** This vitamin helps with the absorption of iron. It is therefore recommended that you eat fruits and vegetables that are rich in vitamin C at every meal.
- **Soak dried legumes:** This eliminates the substances they contain that limit iron absorption (especially phytic acid).
- **Drink your coffee or tea 1 hour after meals:** The tannins in tea limit the absorption of iron in the digestive tract, and coffee can have the same effect. So, it is recommended that you wait 1 hour after a meal to have a cup of tea or coffee.

"To reference this tool: Global-Watch. (2022). *Keep an eye on your protein intake*, available at www.global-watch.com."