

Soya

a source
of dietary
balance



Health is something that has to be built and maintained every day. A balanced diet and a sufficiently active lifestyle help to do this. But food is also about pleasure, and the trick is to reconcile enjoyment with a healthy diet. Soya is the source of a wide range of products that have many nutritional benefits and form a delicious part of a balanced diet. Let's start with the discovery of this time-honoured bean full of wonders...

A historical bean

Soya has been around for several millennia! It all began in China, where it has been consumed for over 5,000 years. Soya cultivation gradually spread throughout Asia, where it still plays an important role in the diet today. It was only at the beginning of the 18th century that this little bean embarked on its journey to Europe, where for many years it remained a mere botanical curiosity.

It was during this time that soya cultivation began in Illinois (USA), and in the course of the 20th century, soya production expanded throughout the United States and also in Europe.

Nutritional value spanning the centuries...

Down through the millennia, soya has been valued as a way to meet basic nutritional needs, particularly as a source of protein. It is, in fact, one of the best sources of protein in the entire plant kingdom. Nowadays, soya is truly a boon when it comes to helping correct certain imbalances in our modern diet.

What exactly is soya?

The soya consumed in Asia and used to produce numerous soya-based products is the bean of the soya plant, *Glycine Max*, which grows to a height of 80 cm. It is classified as a legume, in the same family as peas and dried beans.



There's 'soya' and then there's 'soya'

Soya beans and the products derived from them (e.g. drinks and tofu) should not be confused with soya 'sprouts' or 'bean sprouts'. The soya bean is rich in protein and low in water content, whereas soya bean sprouts are high in water content and low in protein; they belong to different families.

From soya to 'milk': a bean's journey

The members of ENSA transform soya into products such as beverages and desserts through simple yet exacting mechanical processes that are completely natural.

After being harvested, the soya beans are sorted, cleaned and husked. They are then ground in water, which, after filtration, results in soya 'milk'. This milk is then used to create various soya products (drinks, desserts, yofu - a type of yoghurt - or prepared dishes), which are perfect substitutes for any products made from cows' milk.

The whole bean, isolates or supplements: what's the difference?

Soya drinks that are made from the whole bean contain all the different elements that make up soya, in harmonious proportions. They should not be confused with other soya products which are not produced through as natural a process, but are derived from a process of chemical extraction, concentration and purification resulting in protein isolates, which no longer contain the other nutritional components of soya.

As for soya-based dietary supplements, they too are obtained through quite different processes than the foods produced from the entire bean. They only contain certain components of the bean which have been isolated from the other elements that make up the soya bean and therefore cannot be compared with foods prepared naturally from the whole bean.

The soya-product family

Soya drinks or soya 'milks' are available in many forms, plain, or flavoured with fruit or chocolate... In the same way that milk is fermented to produce yoghurt, soya 'milk' can be fermented to create a type of 'yoghurt' sometimes known as yofu, which can be enjoyed plain, with fruit flavours, and so on.

Did you know that...?

- Soya is good for the environment.
- It actually has the power to capture nitrogen from the air. In this way soya preserves the fertility of the soil and makes it possible to avoid the use of nitrogenous fertiliser. Not only is that better for the soil, but for the groundwater as well.



Soya 'milk' can also be gelatinised to create desserts with a smooth, creamy texture.

Tofu, also part of the soya family, is a traditional staple of the Asian diet.

Soya can be combined with other ingredients (e.g. grains and pulses) to make soya 'steaks' which offer an alternative to meat.

Soya in the nutritional context

The promotion of a healthy diet and sufficient physical activity has become a priority within the European Union in order to combat the increasing trend towards obesity and to reduce the risk of various forms of chronic disease. Among the most common dietary imbalances seen in Europe are excessive calorie intake (diet) in relation to the amount of calories burned (physical activity) and too large a proportion of the diet consisting of fats, particularly saturated fats.

The nutritional composition of soya meets the contemporary requirements of a healthy diet perfectly as it contains the following:

- Vegetable protein
 - Soya is the only protein that contains all of the essential amino acids.
 - What's more, soya protein has a beneficial effect on cholesterol levels; numerous scientific studies have demonstrated this.
- No cholesterol: As it is strictly vegetable in origin, soya contains no cholesterol whatsoever
- Low in fat (1.9 % in soya 'milk' and 5 % in tofu)
- Good' fats
 - Soya drinks contain only 15% saturated fatty acids (as compared to 66% in the case of dairy products)
 - At the same time, they are rich in polyunsaturated fatty acids, including the two essential fatty acids (omega-6 and omega-3)



Vegetable power for better balance

Proteins are nutrients made up of amino acids, which are a kind of 'biological building blocks' used by our bodies to renew our cells and tissues. Certain amino acids are referred to as essential because we are unable to generate them ourselves and therefore it is absolutely necessary that we obtain sufficient amounts from the food we eat.

Soya proteins are especially valuable because they are the only vegetable proteins to contain all of the essential amino acids in sufficient amounts. This makes soya one of the most balanced sources of protein in the entire plant kingdom.

In our Western diets, by far the majority of protein comes from animal sources (e.g. meat and cheese). What's more, these products contain high levels of saturated fatty acids and cholesterol, excessive consumption of which is known to raise blood cholesterol levels.

- By replacing animal products (e.g. meats and dairy products) with soya-derived products, you can help balance your protein intake at the same time as improving the quality of the fats you consume.

Moreover, products made from soya are also a good alternative for:

- People allergic to cows' milk. A study by Zeiger et al., conducted in 2003, showed that 80 % of children who were allergic to the protein in cows' milk were able to tolerate soya.
- Lactose-intolerant people. Lactose is a disaccharide made up of glucose and galactose. It is the type of sugar that is naturally present in cows' milk and therefore also in all milk-based products. Since soya products are naturally lactose free, they provide a good alternative to dairy products.

The health secrets of isoflavones

Eating soya appears to have significant health benefits for women undergoing menopause. Data suggest that the daily consumption of 30 mg of the isoflavones in soya can significantly reduce hot flushes. Eating soya can also contribute to healthy bones and cardiovascular systems in post-menopausal women.

Soya and soya products contain components that are of great interest to scientists: isoflavones. These elements have a similar chemical structure to oestrogens, which is why they are also known as phyto-oestrogens.

Soya isoflavones have been studied in the context of the prevention of those cancers known as 'hormone dependent', in other words, those influenced by hormones, which include breast cancer and prostate cancer.

It is known that Asian women have considerably lower rates of breast cancer than women in Europe and America. Studies have suggested that Asian women's intake of isoflavones through soya-based food may play a key role. Conclusive data is not yet available for Western women, but research is ongoing.

Prostate cancer rates are also significantly lower in Asia than in Western countries. The data from studies of these populations (epidemiological studies) suggest that the consumption of soya containing isoflavones is associated with a reduced risk of this type of cancer. Several mechanisms that could explain a protective effect have already been identified, and research in this area is also ongoing.

Research into soya isoflavones has also been carried out in many other areas, with promising results reported, particularly concerning bone and brain health (preliminary results) as well as in reducing the discomforts of menopause.

Soya as part of a balanced diet

In a balanced diet, soya products can replace various animal-based foods.

- Soya drinks or soya 'milks', 'yoghurt' type specialities as well as desserts and soya-based cream products for cooking, are perfect substitutes for dairy products. It is best to choose soya products enriched with calcium, which they generally are.
- Tofu and soya 'steaks', which are more protein-rich, can also be used as a substitute for meat or poultry.

There are many nutritional benefits of making these substitutions, as compared to meat or dairy products, soya products:

- contain lower levels of saturated fatty acids
- are lactose free (the milk sugars that are not always well tolerated)
- are cholesterol free
- contain higher levels of polyunsaturated fatty acids
- are easy to digest
- 100% vegetable

Benefits for all!

Soya products can easily be incorporated into the diets of children (from the age of one) and adults as well as the elderly.

Nutritional composition of milk compared to soya 'milk'

Composition	Semi-skimmed cows' milk	Calcium-fortified soya 'milk'
Calories (kcal)	48	44
Protein (g)	3.3	3.3
Carbohydrates (g)	4.8	3.2
<ul style="list-style-type: none"> ▪ sugars ▪ lactose 	4.8 4.8	3.0 0
Fibre (g)	0	0.3
Fats (g)	1.6	1.9
<ul style="list-style-type: none"> ▪ Saturated fatty acids ▪ Polyunsaturated fatty acids ▪ Cholesterol 	1.0 0 5	0.3 1.0 0
Calcium	118	110

Source: Souci-Fachmann Kraut

How can you incorporate soya into your diet?

Plain or with fruit, sweet or savoury, morning or evening... there are countless delicious ways to incorporate soya products into your diet. Give your body a treat while you treat yourself: put a little vegetable power in your diet!

Morning

A glass of soya drink, plain or chocolate flavour, hot or cold, is the perfect accompaniment to toast. Or if you prefer, try cereal with soya 'milk'.



Lunch or dinner

Whether it's part of a cold or a hot dish, tofu can be prepared in an endless variety of ways. Cut it into cubes or strips and sauté in a wok or frying pan. You can also marinate it (in a marinade with soya sauce, for example) or use it as filling for stuffed vegetables or crêpes. Tofu can even be used in pastries and cakes.



Vegetarian 'steaks' are ready in minutes in the pan (or oven), and go beautifully with salads, vegetables, potatoes, and so on.

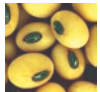
Dessert or snack

No need for heavy meals, you can finish on a light note with a 'yoghurt' type treat or cream dessert made from soya. Or why not try them as a healthy snack?



Conclusion

A healthy diet contributes to well being. Because of their particularly valuable nutritional composition, soya foods are ideal for meeting the requirements of a modern healthy diet. Moreover, the wide range of soya products available makes it easy for anyone to incorporate them into a diet that is both healthy and delicious.



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