



## Meat substitution products – better for your health than meat products?

The added health value of meat substitutes depends heavily on the product, but is generally rather low.

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Explainer videos

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## English translation of the German explainer video transcript

Hi everyone, everyone knows them: they look like meat products, they also resemble them in consistency and taste, but they are not! This video gives you an overview of meat substitution products and how they compare to their animal counterparts in terms of health. Stay tuned, you'll find out now!

Production and consumption of products in this category have been increasing in Germany for years. The main consumers here are flexitarians who do not want to give up any food but want to reduce their meat consumption. The reasons for this are usually a greater awareness of sustainability, animal welfare, health and climate or environmental protection. When it comes to health, there is the so-called "health halo effect". This means that consumers automatically perceive the variety of plant-based alternatives as healthier. Let's take a look at whether this perception is justified.

We focus here on the plant-based counterparts to existing meat products, such as minced meat, burger patties or sausage. Fresh meat and plant-based primary products such as saitan made from wheat, tofu made from soybeans or tempeh made from fermented soybeans are left out.

Grain, soy, vegetables, mushrooms, or algae usually form the basis of plant-based meat substitution products. However, egg or milk components may also be included. Both plant-based meat substitution products and conventional meat products contain additives. These include colourings, antioxidants, or preservatives. There tends to be more additives and additional flavourings in some meat substitution products to provide the desired texture, appearance, or taste.

### **What about the nutrient composition?**

The nutrient amounts of the so-called "Big 7" vary greatly between the product manufacturers due to the different recipes and manufacturing processes. For this reason, it is hardly possible to make uniform or general statements about the nutrient composition. The "Big 7" include energy value, total fat, saturated fatty acids, carbohydrates, monosaccharides, proteins, and salt content. The amounts of the highlighted nutrients may be slightly elevated in some meat substitutes compared to their animal counterpart.

Some plant-based meat substitutes also contain less saturated fatty acids. At higher levels of consumption, these types of fatty acids can be harmful to the cardiovascular system. Therefore, the reduction is a plus for the meat alternatives.

In terms of protein quality, there can be differences between meat substitution products and meat products in their digestibility as well as in the composition of the amino acid profile. Here, the essential amino acids are decisive. In contrast to the non-essential ones, our body cannot produce these amino acids itself. Animal foods contain all essential amino acids in sufficient quantities, whereas plant proteins have to be combined. Meat alternatives based on soy, egg or milk can be compared to beef in terms of quality. Wheat- or gluten-based products, however, have a lower protein quality than comparable meat products. By combining them with other protein-containing foods or products such as legumes, however, a complete amino acid profile can be achieved. Studies also show that a higher intake of plant-based proteins may be associated with a lower risk of type 2 diabetes and overall mortality and cardiovascular mortality.

Therefore: when buying a meat or meat substitution product, always look at the list of ingredients and the nutritional information on the packaging!

### **To what level of processing are meat and meat substitute products actually classified?**

According to the NOVA classification, foods can be divided into four levels: 1. unprocessed and fresh foods, 2. processed ingredients, 3. processed foods and 4. intensely or highly processed foods. Meat as well as meat substitution products, along with fast food, baked goods, and confectionery, belong to the group of highly processed foods. This limits the nutritional quality of the food. Due to the heavy processing in the production of the food, part of the body's digestive process is already taken over. As a result, the body has to expend less energy to digest the nutrients. The result: the feeling of satiety lasts less long compared to unprocessed foods and the body demands food again more quickly. This in turn can lead to an energy surplus and weight gain. Accordingly, these food products should be avoided if possible or only consumed in small quantities.

### **What conclusion can we draw from this?**

The aspects of the product groups presented in the video show some factors that can have an influence on our health. Compared to meat products, the positive effects of vegetable proteins as well as the reduced use of saturated fatty acids would indicate a health advantage of meat substitution products. However, the results depend on the respective recipes of the products and have to be compared and tested individually. In addition, meat substitution products and meat products are generally not recommended due to the NOVA classification as highly processed foods. This means that meat substitution products can increase the variety on the market and therefore offer an alternative to reduce meat product consumption. However, they do not offer any added health value. The best option for a healthy diet is therefore to buy unprocessed food as much as possible and prepare the corresponding dishes yourself. With this in mind, have fun trying them out!

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