



The hype around hemp

Foods and food supplements containing hemp: a must-have in a healthy diet or to be enjoyed with caution?

Hemp noodles, hemp tea, hemp chocolate – products with hemp are taking over the supermarket shelves, health stores and online shops, and are literally on everyone's lips.

The hemp plant, also known by its Latin name cannabis, has been used in many ways for centuries, whether for the production of fibres for textiles or as a remedy, but also as narcotic drug. Now it's making a comeback as a commercial crop. Numerous products containing hemp have made it onto the market in recent years. These mainly comprise foods and food supplements, but also include creams, e-cigarettes and even feed additives for pets. These products often contain hemp seeds, oil or protein powder obtained from these seeds as an ingredient. The seeds of the hemp plant are rich in valuable amino and fatty acids, similar to linseeds.

What causes the high?

Unlike the seeds and roots of the plant, the other parts of the plant – for example the leaves and flowers – produce so-called cannabinoids. Among the best-known of these are tetrahydrocannabinol (THC) and cannabidiol (CBD). The legal situation governing products containing the leaves or flowers from cultivated hemp or extracts derived from them is complex. In individual cases, such products can be deemed by the competent authorities as being narcotic drugs.

THC is primarily held responsible for the intoxicating, psychoactive effect of cannabis products. THC has a perception-altering effect, and is listed as a narcotic drug in Germany. Therefore, in foods containing hemp, THC comes under the spotlight in respect of potential health risks.

In an assessment from 2015, the European Food Safety Authority (EFSA) concluded that an effect on the central nervous system and the cardiovascular system is to be expected after ingesting smaller amounts of THC. This may lead to mood swings and fatigue. As a consequence, the EFSA derived an 'acute reference dose' (ARfD) of 0.001 milligrams of THC per kilogram of body weight. This value indicates the estimated maximum intake of THC that can be consumed in the course of one day via food without a detectable health risk.

Excess THC from food containing hemp

Current model calculations by the German Federal Institute for Risk Assessment (BfR) on the intake of THC via food consumption indicate that the consumption of hemp tea in particular could lead to an exceedance of the ARfD from EFSA. Hemp seeds and foods made from them such as hemp seed oil can also sometimes have a high THC content due to contaminations that occur during production and processing. "Children in particular are at increased risk of consuming too much of the



Products containing hemp are taking over the supermarket shelves: there are still a lot of unanswered questions concerning potential consequences for health.

substance because of their low body weight,” says Professor Dr. Bernd Schäfer, Head of the Food Toxicology unit at the BfR. Standardised maximum levels for THC in food do not yet exist. The introduction of maximum levels for hemp seeds and products made from them is currently being discussed at EU level, however.

The manufacturers of products that contain CBD claim in their marketing slogans that CBD has a calming and pain-relieving effect, and helps with sleep disorders. But what can research tell us about the effect of CBD on people? So far, there is an approved (and prescription-only) medicinal product in Germany with CBD as an active ingredient for the treatment of certain forms of epilepsy – where a positive effect has been proven. “Conversely, most of the effects advertised as being positive for health have not yet been scientifically proven,” emphasises Schäfer. There is also still limited understanding of the potential harmful effects of CBD in foodstuffs.

Adverse effects cannot be ruled out

The EFSA is currently assessing the safety of CBD as part of several authorisation processes for novel foods. “However, it is already known from the medicinal use of CBD for certain forms of epilepsy that CBD can cause undesirable effects, at least at higher intake levels. These include a sedative, or sleep-inducing effect, and disturbances of liver function,” says Schäfer. “Based on current understanding, there can certainly also be interactions

with other medicinal products. However, according to current knowledge, there seems to be no intoxicating/narcotic effect in contrast to other cannabis ingredients.”

How are products containing CBD regulated in retail?

Just now, products containing CBD are increasingly found on the market with a food supplement declaration. According to the German Federal Office of Consumer Protection and Food Safety (BVL), these products are currently not marketable, however, because they are considered to be novel foods which must be authorised by the European Commission before they are marketed. But no product containing CBD has yet been authorised as a novel food because the EFSA has not yet completed the necessary safety assessment.

What you need to know: The consumption of foodstuffs is generally not permitted to result in harm to health. Furthermore, the ingredients in foodstuffs, including food supplements, are not permitted to have any pharmacological effect. This means they are not allowed to have any properties for healing or alleviating illnesses – because as soon as they do, they are classified a medicinal products, not foods. ■

More information:
www.bfr.bund.de/en > A-Z Index: Hemp