WHAT MUST BE INDICATED ON THE PACKAGING?

1. „Food supplements“ (Nahrungsergänzungsmittel) as the binding designation
2. Information on nutrients characterising the product, e.g. „with calcium and vitamin D“
3. List of ingredients
4. Allergenic ingredients must be emphasised
5. Recommended daily consumption in portions
6. Warning label „Do not exceed the recommended daily consumption.“
7. A note that food supplements are no substitute for a balanced diet
8. A note to keep the product out of the reach of small children
9. Indication of quantity
10. Best-before date
11. Name or company and address of manufacturer, packer or seller
12. Nutritional information and indication of daily requirements

AND LAST BUT NOT LEAST...

Vitamins, minerals and secondary plant substances are important components of a healthy, balanced diet. They have their most beneficial effects in natural food, in combination with all ingredients. Food supplements – including fruit and vegetable extracts – in contrast, cannot compensate for unbalanced eating habits and an unhealthy lifestyle.

A targeted food supplementation can only make sense in individual cases. These include, for example, folic acid taken shortly before and in the early stages of pregnancy.

More information on this is available at:

www.verbraucherzentrale.de
www.klartext-nahrungsergaenzung.de

Klartext Nahrungsergänzung

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verbraucherzentrale

verbraucherzentrale

APPETITE FOR PILLS?

Benefits and risks of food supplements

BIG PROMISES – SMALL BENEFITS

If there is an apparent lack of time for a balanced diet or doubts arise about the quality of the food on offer in supermarkets, many promisingly advertised food supplements become interesting. But what actually are the benefits of vitamin pills and similar products?

FOOD SUPPLEMENTS ARE NOT MEDICATIONS!

Food supplements are legally defined as concentrates of nutrients or other substances, often in the form of capsules or tablets, which are intended to supplement the normal diet. Therefore, in legal terms, they are not medications but food.

Unlike medications, which are intended to heal or prevent illnesses, food supplements are **not** subject to any regulatory approval procedure, in which the benefits and risks are tested before they enter the market. Food supplements may not be put up as medications or advertised with promises of healing.

WHICH SUBSTANCES MAY BE ADDED TO FOOD SUPPLEMENTS?

The sole regulation at the European level deals with the type of vitamins, mineral substances and trace element compounds that may be added. No specifications exist to date regarding the maximum quantities. No specific regulations exist concerning the numerous other substances to be found in food supplements.

These include:

- plant preparations, so-called botanicals (such as ginkgo),
- secondary plant compounds (such as phytoestrogens),
- amino acids and their compounds (such as L-carnitine, glucosamine),
- natural oils (such as fish oil, evening primrose oil),
- products of animal origin (such as shark cartilage, mussel extracts),
- algae, gelatine…

These other substances are consumed in food supplements in a concentrated/isolated form and cannot categorically be assumed to be harmless. The Consumer Advice Centres therefore demand that:

- manufacturers prove that a food supplement presents no health risk to any population group (including potential risk groups), before they enter the market (positive lists required!).
- manufacturers prove the benefits promised for the product.

The European legislative body has reacted to the wide range of foods with unproven health claims by adopting the Regulation on Nutritional and Health Claims. It is intended to ensure that health claims can only be made if the advertised benefits have been proven. But there is a catch here: So far, the European Commission has only approved specific statements on vitamins and minerals as well as a few other substances. The large number of advertising promises relating to herbal substances have so far remained unevaluated and may currently still be used.

THE FAIRY TALE OF THE UNDERSUPPLY OF VITAMINS

Providers of food supplements often fuel consumer fears of them not being sufficiently provided with vital nutrients. Fruits and vegetables, for instance, are supposedly lower in nutrients nowadays than they used to be due to depleted soils as a result of intensive farming methods. The reality, however, is rather different: neither are the soils depleted, nor does food contain fewer nutrients. Germany is not a vitamin-deficient country.

RISKS AND SIDE-EFFECTS

Despite being legally classified as such, food supplements in fact differ from conventional food products. As they contain nutrients in a concentrated/isolated form, overdoses are more likely. For example, it has long since been known that the intake of additional amounts of beta-carotene by smokers may facilitate lung cancer. If women take too much vitamin A during the initial weeks of pregnancy, they risk developmental disorders in the child. Products containing high levels of antioxidative vitamins A, C and E for protection against cardiovascular diseases are also not recommended. Certain trace elements, such as iron, should only be taken in the event of a proven deficiency and only after consultation with a doctor, due to the risks associated with an uncontrolled intake. In addition, an excess of individual nutrients can interfere with the absorption of other nutrients (calcium and magnesium; plant sterols and fat-soluble vitamins). Furthermore, interactions with medication are possible – for example, iron blocks the absorption of the thyroid hormone thyroxine if taken at the same time. Persons wishing to take food supplements in addition to their medication should therefore always consult their doctor or pharmacist beforehand.

ADULTERATED FOOD SUPPLEMENTS ON THE INTERNET

At first sight, food supplements, often advertised as purely herbal, appear to be natural and harmless. In fact: It is these preparations in particular, which are sold via the internet, that can contain substances hazardous to health, some of them having strong pharmacological effects. Often these preparations are only exposed by chance; either by random testing or when health damage occured after intake.

Maximum recommended daily intake by the German Federal Institute for Risk Assessment (BfR) for **vitamins** in food supplements (FS)[1]:

Valid as of 2021

Vitamin		Unit	Max. daily intake from FS	Additional recommendations and warnings by the BfR
A		mg	0[2]	
Beta carotene		mg	3,5	
D		µg	20	Products containing a daily dose of up to 20 µg can still be classified as FS (corresponding to max. recommended daily intake when the body is unable to produce its own); products with higher levels are to be viewed as medication
E tocopherol		mg	30	Inconclusive data; high doses may have negative health implications
K	K1	µg	80	Should only be consumed after consulting a physician if taken in conjunction with anticoagulants
	K2	µg	25	
Niacin	Nicotinic acid	mg	4	
	Nicotinamide	mg	160	Warning for pregnant women: FS containing more than 16 mg/day are not suitable
	Inositol hexanicotinate	mg	4,4	
B6 pyridoxine		mg	3,5	
Folic acid		µg	200	
		µg	400	Food supplements for neural tube defects (NRD) risk reduction (women of childbearing age and pregnant women in the first trimester)
B12 cobalamin		µg	25	
C		mg	250	
B1 thiamine		mg	–	According to the current state of knowledge, no maximum daily intake is needed for FS; however, potential undesirable effects cannot be ruled out
B2 riboflavin		mg	–	–"–
Pantothenic acid		mg	–	–"–
Biotin[3]		µg	–	Persons who have to undergo a laboratory test should inform their doctor or the laboratory staff that they are taking or have recently taken biotin

[1] Recommendations by the BfR, taking into consideration the supply situation in Germany and more importantly the risk posed by the excessive intake of individual substances. These apply to adolescents aged 15 and over and to adults. For children under the age of 15, special considerations and lower product doses may be required.

[2] Option 1 (https://www.bfr.bund.de/cm/349/proposed-maximum-levels-for-the-addition-of-vitamin-a-to-foods-including-food-supplements.pdf)

[3] Laboratory test failures can occur (e.g. thyroid hormone levels, sex hormone levels, cardiovascular marker levels)

Maximum recommended daily intake by the German Federal Institute for Risk Assessment (BfR) for **minerals** in food supplements (FS)[1]:

Valid as of 2021

Mineral	Unit	Max. daily intake from FS	Additional recommendations and warnings by the BfR
Boron	mg	0,5[2]	Warning: not suitable for children and adolescents
Calcium	mg	500	Warning for FS containing a daily dose of more than 250 mg: further FS containing calcium should be avoided
Copper	mg	1[2]	Warning: not suitable for children and adolescents
Chloride	mg	0	
Chromium	µg	60	
Fluoride	mg	0	
Iodine	µg	100	Pregnant and breastfeeding women: 150 µg/day
Iron	mg	6	Warning for men and for post-menopausal or pregnant women: consult a physician before taking
Magnesium	mg	250	Recommended daily intake should be spread out over two or more portions
Mangan	mg	0,5	
Molybdenum	µg	80	
Natrium	mg	0	
Phosphor	mg	0	
Potassium	mg	500	
Selenium	µg	45	
Silicon compounds			
Silicon dioxide	mg	350[3]	
Silicic acid (silica gel)	mg	100[3]	
Choline-stabilised orthosilicic acid	mg	10[3]	
Organic silicon (monomethylsilantriol)	mg	10[3]	
Zinc	mg	6,5	Warning for FS containing a daily dose exceeding 3,5 mg: further FS containing zinc should be avoided

[1] Recommendations by the BfR, taking into consideration the supply situation in Germany and more importantly the risk posed by the excessive intake of individual substances. These apply to adolescents aged 15 and over and to adults. For children under the age of 15, special considerations and lower product doses may be required.

[2] Recommendation for adults aged 18 and over

[3] Maximum levels for silicon