Minerals and trace elements for a functioning immune system.

A good supply of minerals and trace elements, among other things, is the basis for the proper functioning of our body and therefore also our immune system. Unfortunately, these are often no longer sufficiently available in our daily diet. Due to incorrect storage, processing and preparation, but also due to soil depletion and plant diversity, the daily diet often no longer provides everything the body needs. It is also possible that these substances are absorbed, but are not or only insufficiently absorbed by the body or are utilised or consumed to a greater extent. At first, deficiencies often remain asymptomatic. At some point, however, the nutrient stores become depleted. Subclinical changes can then occur, such as tiredness, susceptibility to infections, long convalescence, etc.

However, as this changes over long periods of time and also affects a large proportion of the population, it is often regarded as a normal condition. And even if pronounced deficiency symptoms eventually occur and specific symptoms develop, these must be diagnosed as a nutrient deficiency, which in practice still happens relatively rarely even at this late stage.

Magnesium

Magnesium is essential for optimal immune system function and the regulation of inflammation - magnesium deficiency can lead to temporary or long-term immune dysfunction and has a significant impact on the innate and acquired immune system. In studies (1), a clear relationship between magnesium deficiency and the escalation of systemic inflammation has been observed. In particular, there is an influence on various inflammatory mediators, and T-cell function also appears to correlate with magnesium levels. Last but not least, magnesium is important for the synthesis and distribution of vitamin D and thus indirectly important for the function of the immune response.

According to the German Nutrition Society (DGE), magnesium deficiency is rare in Germany (2). However, studies have come to different conclusions. A study in the USA in 2005 found that 68% of adults consume less magnesium than the recommended daily amount (3) and in Germany, the 2008 national consumption study found that around 1/3 of the population consumes too little magnesium (4).

To cover the magnesium requirement, you can choose your daily diet so that it is as rich in magnesium as possible. Any additional requirement can be covered, for example, by supplementing with the alkaline preparation ALKALA® ‘S’, from the group of alkaline preparations. It consists of the salts potassium citrate, magnesium citrate and calcium citrate. ALKALA® ‘S’ is also part of the SANUM alkalising cure. MAPURIT® offers another option for magnesium substitution. The recommended daily dose of 300 mg is contained in 2 capsules.

MAPURIT® also contains 100 mg of vitamin E, a fat-soluble antioxidant which also plays an important role in the functioning of the immune system.

Zinc & Selenium

Zinc and selenium also play an important role in immune function. Zinc is a co-factor for numerous enzymes, has an effect on the TH1/TH2 balance and on the activation status of T helper cells. Zinc deficiency is also associated with increased CRP and an increase in pro-inflammatory cytokines and can lead to dysregulation of the immune system. Selenium primarily has an antioxidant and detoxifying effect on the body. It also influences immune cell function by playing a role in the development and activation of T cells. It also modulates the production of cytokines and thus regulates the course of inflammation to prevent an excessive immune response that weakens the immune system.

It has long been said that zinc and selenium deficiencies are rare in a balanced mixed diet. However, it can be assumed that a balanced mixed diet is not found on many plates in this country, as the average diet tends to be high in fat and carbohydrates and low in vital substances. In addition, there can always be an increased need or consumption, e.g. due to illness, medication or old age. Senior citizens in particular often suffer from a zinc deficiency (5). Vegetarianism can also cause a zinc deficiency if there is an increased consumption of pulses and cereals, because the phytic acids they contain can block absorption. As far as selenium is concerned, it is now known that European soils are quite poor in this trace element. Animal feed, on the other hand, may be enriched with selenium. Plants are therefore relatively low in selenium, which is why vegetarians and vegans are more likely to be in a state of selenium deficiency (6).

A zinc deficiency can be compensated for by supplementing the preparation ZINC + BIOTIN Biofrid, which also contains biotin, i.e. vitamin B7, to support the skin and mucous membranes.

Taking SELEN Biofrid can supplement your daily selenium intake. This preparation is available in two different dosages: 30 µg or 100 µg per daily dose.
If you do not need to supplement your diet with selenium, but simply want to do something for your zinc or selenium metabolism, you can use SELENOKEHL® D4 drops and/or ZINKOKEHL® D4 drops. This supports improved absorption and distribution of zinc or selenium in the body.

Trading forms

ALKALA® "S"
Powder
Recommended dosage
1-2x 1 level teaspoon daily in a glass of water with a meal

MAPURIT®
40/100 capsules
Recommended dosage
2x 1capsule daily

ZINC + BIOTIN Biofrid
40/100 capsules
Recommended dosage
1x 1 capsule daily

Selen/Selen 100 Biofrid
30 µg – 20/100 capsules
100 µg – 100 capsules
Recommended dosage
1x 1 capsule daily

ZINKOKEHL® D3 Drops
10/30/100 ml bottle
Dosage
Children from 12 years: acute up to 6x 5 drops daily, chronic 1-3x 5 drops daily.

SELENOKEHL® D4 Drops
10/30 ml bottle
Dosage
Children from 12 years: 1-3x 5 drops daily

For further product information, please refer to the respective instructions for use.

List of references
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