

CAUSES OF DEFICIENCY OF THE MACROELEMENT MAGNESIUM
IN CHILDREN AND WAYS TO ELIMINATE THEM.

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Annotation: *If there is a lack of magnesium in the human body, appetite is lost, body temperature drops, mental depression, nervousness, and vasoconstriction occur. Deficiency of this trace element causes insomnia, headaches, premature aging, anemia and nervous problems. Ensuring sufficient magnesium in the body is a guarantee of long life and always being healthy and energetic.*

Key words: *magnesium, calcium, vitamin, stress, neurosis, headache, muscle pain, heart rhythm.*

Biologically active elements necessary for the body are important for the child to be strong, healthy and happy. Such elements include magnesium, which is involved in many important processes. Of the eleven chemical elements that play an important role in the functioning of the human body, magnesium is needed in the least amount. The mass fraction of magnesium in the human body is only 0.05%, which seems very little. But magnesium-containing compounds are involved in all major biochemical processes in the body, including muscle function, nerve cell function, protein synthesis, and bone formation. In addition, magnesium compounds are regulators of many metabolic reactions, activate hundreds of enzymes, increase the digestion of B vitamins. The most important function of magnesium compounds is as a controller in the transmission of nerve impulses. With the help of impulses, the brain controls the body and receives information about the state of the body through them, resulting in a successful response to the stimulus. Therefore, magnesium deficiency primarily affects the processes related to the nervous system. In addition, there may be interruptions when muscle contractions and blood pressure rise. In addition, with a lack of an element, irritability occurs, a person constantly experiences stress and cannot get rid of it. Maintaining magnesium balance is very important for the developing body, that is, during childhood and adolescence. Children are more prone to stress and emotional. No matter where they are, at home, in kindergarten, at school, children have to quickly learn about the world around them, remember and process a large amount of information. Therefore,

the lack of magnesium in a child has a negative effect on the child's well-adjustment in the community and at school.

Adapting to school life is not an easy task. In each class, new demands are placed on the child, which, of course, leads to psycho-emotional stress. Control work and test assignments are also a serious cause of stress. Nevertheless, if the student does not have useful elements, the risk of irritability, memory impairment and increased concentration increases. This, in turn, affects the quality of sleep. Magnesium enters our body with food and water. Thus, the main reason for the lack of magnesium in the child's body is improper nutrition. Children's favorite foods include fast food, sweets, and sodas. Naturally, by eating such foods, one cannot get enough magnesium.

Magnesium deficiency in children can be identified by several signs:

- the child becomes careless and gets tired quickly;
- frequent mood disorders, nervousness, fear and anxiety, hyperactivity, aggressive behavior are observed.
- the child complains of headache, muscle pain;
- heart rhythm disorder;
- it is difficult for the child to fall asleep, his sleep is superficial, he is restless when he sleeps;
- due to the stress that occurs in children, they have bad relations with others, it is difficult for them to adapt to kindergarten and school conditions.

Increased magnesium deficiency in children leads to the following consequences:

- the occurrence of problems related to reading and learning;
- frequent occurrence of heart problems;
- the development of neurosis, etc.

In order to prevent magnesium deficiency in the body of children, it is necessary to increase the consumption of food products rich in this element, as well as to change the lifestyle. The amount of magnesium is recorded in the following table (mg of magnesium per 100 g of product): Amount of products (mg)

Nuts 270, Barley 150, Almonds 234, Oats 121, Pistachios 121, Millet 83, Sunflower 317, Soya 226, Buckwheat 200, Beans 103, Parsley 85, Peas 88, Sorrel 85, Dates 56, Spinach 82, Banana 42, Dill 70, Dark chocolate 133.

However, this approach has several drawbacks. Because many children eat less healthy foods such as spinach and peas. Nuts can cause allergies in children. In addition, only 45% of magnesium in food is absorbed by the body.

It is necessary to reduce the amount of phosphates in the food in order to prevent magnesium deficiency in the food consumed. Phosphates are mainly absorbed through sweet carbonated drinks. In addition, excess animal fats and

sugar in food products should be avoided. Eating large amounts of calcium-rich foods can also lead to magnesium deficiency. Therefore, it is necessary to pay attention to the presence of calcium in food products. It is advisable to consult a nutritionist. In addition, it is necessary to take into account the increased demand for magnesium to ensure bone formation and the strength of bone tissue during the period of active growth of the child. We have already mentioned that stress and excessive mental and physical work increase the need for magnesium.

In conclusion, it can be said that the trace element magnesium is important for the body, because magnesium controls the process of "information" in the body, with the help of which impulses are transmitted along the nerve fiber. Depletion of magnesium has a negative effect on the distribution of "information" throughout the body, as a result of which the control of vital processes is disturbed, the immune system is derailed. Therefore, determining its quantitative index in living organisms, as well as determining its content in daily food, is important for improving the health of the body and increasing the mental capacity of a person.

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