Changes In the Reproductive System of Girls with Vitamin D Deficiency

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ABSTRACT

In order for the human body to function properly, well-coordinated work and interaction of all its systems is necessary. There are many components involved in the life support process. Destabilization of the amount of one of them threatens the development of serious ailments. Vitamin D deficiency is especially dangerous. Vitamin D deficiency can lead to serious violations of life support systems and pathologies of internal organs.

Keywords: *Vitamin D, immune system, deficiency, reproductive function, symptoms*

Why is there a lack of vitamin D in the body.

Many scientists attribute calciferol to hormones, due to its participation in cell reproduction and the normalization of metabolic processes. However, the main function of the vitamin is to regulate the processing of calcium and phosphorus in the small intestine. The element directly affects the human body, namely:

- strengthens the immune system;
- participates in the production of pancreatic insulin for the correct functioning of the gastrointestinal tract;
- inhibits the growth of tumor cells;
- increases libido, stimulates reproductive function;
- involved in the endocrine system - regulates the activity of endocrine glands;
- affects the nervous system, improving memory and attention;
- regulates blood clotting;
- is responsible for the normalization of blood pressure;
- improves the condition of the skin, nails, hair.

Among the main causes of vitamin D deficiency are failures in the work of self-synthesis or a violation caused by malnutrition. In addition, there are several other factors that lead to deficiency:

1. dark skin independently protects itself from an excess of calciferol, which is especially pronounced in residents of the southern regions;
2. destabilize the synthesis of sunscreen lotions and creams;
3. exposure to ultraviolet radiation is significantly reduced in the city, where the content of dust and harmful emissions is increased in the air;
4. living in countries with low solar activity also causes vitamin D deficiency;
5. in the elderly, the skin is no longer so efficient at synthesizing calciferol.

As mentioned above, malnutrition has a strong effect on the nutrient content:

- a high content of the element falls on meat, fish dishes, eggs, which are avoided by vegetarians, automatically falling into the risk group;

• unbalanced and incorrectly constructed diets lead to vitamin deficiencies;

• pregnancy and lactation causes a double consumption of calciferol. In this case, only the mother can restore the vitamin, the baby receives the element along with milk or in utero - nothing else.

There are other reasons for the shortage:

• excess weight and lack of physical activity;

• diseases of the gallbladder, liver or kidneys;

• inflammatory processes of the small intestine;

• drug treatment, which reduces the acidity of the stomach.

An excess of vitamin D is just as dangerous as its deficiency. At the same time, weakness, fever, high blood pressure, slowing of the pulse, the development of osteoporosis, muscle and joint pain, constipation, diarrhea, nausea, general weakness, etc. are observed. Elevated levels of calciferol in the blood are caused by:

• drug overdose;

• simultaneous intake of synthetic substitutes, oily fish and seafood into the stomach;

• ultraviolet burns, exposure.

If you have noticed in yourself or in your loved ones a violation of the gastrointestinal tract, convulsive syndrome, muscle or joint pain, a feeling of constant thirst, neurological abnormalities, arterial hypertension, most likely the cause is an overdose of vitamin D.

In adults

For many years it was believed that only children needed vitamin D for the correct functioning of all body systems. Studies have shown that under its influence calcium enters the bones, contributing to their proper formation and development, excluding the appearance of rickets. As for the mature age group, it was believed that there could be no deficiency of the element in men and women over 18 years old, since the body is sufficiently exposed to sunlight. Further research in this area has proven otherwise. The micronutrient in adults controls cell division, has an anti-inflammatory effect, stimulates the activity of the immune system and promotes the production of antibacterial particles in the body, ensures optimal functioning of the nervous system, and causes the production of "antidepressive" mediators - dopamine and serotonin. With its shortage, there is:

• fragility of bones;

• muscle weakness, periodic convulsions;

• frequent colds;

• lack of mood;

• irritability and depression;

• loosening of teeth, frequent caries;

• loss of appetite.

Among women

In addition to reproductive failures, the threat of infertility and tumors of the mammary glands, among the pronounced symptoms, mood swings and depression are usually observed against the background of defects in the skin, hair and nails, weight loss, loss of appetite, burning in the throat, and insomnia. The lack of a proportion of vitamin D in the body provokes increased sensitivity to infections, atherosclerosis, arterial hypertension.

Conclusion

To maintain the optimal amount of vitamin D in the body, babies over the age of one need to receive 600 IU per day, and adults - 800 IU. Those who are at risk are recommended daily physical activity, walking during the daytime (at least 20 minutes), a balanced diet, including foods that contain vitamin D. It is also necessary to maintain a normal weight and monitor the work of all body systems with special attention to the intestines, liver and kidneys. If the next of kin is diagnosed with osteoporosis or hypovitaminosis D, consult a doctor immediately.

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