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## IODINE DEFICIENCY IS A REGIONAL PROBLEM

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**Abstract**: In this article, iodine deficiency and a number of problems related to it are discussed ways of disease occurrence, pathogenesis, etiology, treatment, prevention, drugs its application, classification, properties are mentioned in detail.

**Key words:** Iodine deficiency, thyroid gland, iodized salt, metabolism, birth defects.

If we consider the rest of the world, the air content of the Republic of Uzbekistan is low in humidity is a country with a dry continental climate. That is why the human organism in our country Deficiency of iodine balance, which is necessary for almost 75% of the population, causes serious problems is issuing. This is especially true of a number of endocrine diseases associated with iodine deficiency, In particular, goiter (Bazedov's disease) is spreading widely among the population. Iodine is vital it is a micronutrient and is consumed with food. For thyroid hormones iodine is essential. If there is a constant lack of iodine in the body, the thyroid gland the production of hormones slows down, which in turn are the main aspects of metabolism We fill the daily necessary amount of iodine mainly through iodized table salt.

But we all know that this is also a perfect solution. Iodine deficiency only affects the body not unilateral, but multilateral. For example, the main and general substance partial disruption of the metabolism, affecting the central nervous system, mental capacity, physical, mental, it has been found that it affects sexual development and protein synthesis. According to the World Health Organization,

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more than 665 million people worldwide suffers from endemic goiter and other diseases of the thyroid gland. And 1.5 billion people there is a risk of developing iodine deficiency diseases. Among these diseases, bulls in the following years becoming an urgent issue for most countries of the world, including Uzbekistan is going.

So, what are the factors that cause this disease?

- -What are its health risks?
- What kind of disease is gout?
- In the front part of the human neck, there is a thyroid gland that resembles a butterfly. this body part in the activity of the nervous system, digestion, bone tissue and metabolism is important.

The thyroid gland secretes 3 different hormones, which support the normal growth, maturation, and development of the body provides, supports the normal functioning of organs such as the stomach and intestines. Which of them? if there are problems in the process of synthesizing one, this in itself is a path to serious diseases in the human body opens. Goiter is considered to be an enlargement of this gland (normally the weight of the thyroid gland is 20-30 grams) the disease is mainly caused by iodine deficiency. Iodine deficiency is caused by a person's lifestyle, can be caused by diet, stress, environmental conditions and several other factors. When there is a deficiency of iodine in the human body, the thyroid gland sends a small amount of iodine to the cells. As a result of this, the synthesis of hormones decreases, and the body has to balance this process affects the pituitary gland of the brain. As a result, the thyroid gland enlarges and goiter develops. Chronic iodine deficiency and thyroid dysfunction can cause mental retardation, depression, dry skin, hair loss, constipation, diarrhea, infertility, decreased sexual activity, bone causes changes in development, short stature and diseases such as osteoporosis, hypertension and atherosclerosis will be.

- In medicine, there are mainly endemic and sporadic types of goiter. Including endemic smallpox characterized by rapid enlargement of the thyroid gland, this disease is often found in the environment there is a lack of it, there is a lot in the



regions far from the oceans and seas (including Uzbekistan). occurs. There are diffuse, nodular and mixed types of endemic goiter.

# What are the main symptoms of the disease?

- In the early stages of goiter, not even the slightest signs of it are noticeable. But then the front of the neck the part protrudes. As a result, the enlarged thyroid gland crushes nerves and blood vessels. This through which the patient has shortness of breath, sudden changes in voice and hoarseness, choking, profuse sweating, difficulties in swallowing, dizziness, etc., are observed. At the same time, disturbances occur in the nervous system, mood changes often, and everything in the body processes slow down, especially gastrointestinal function is disturbed. Unfortunately, most people do not pay serious attention to the fact that they are developing this disease. But that's it Ignoring the disease does not lead to good results. Nodular goitre is a group of thyroid diseases with different origins and morphologies occurs with the development of mass nodes. Nodular goitre is a visible cosmetic defect in the neck area, a feeling of tightness in the neck, thyrotoxicosis may be accompanied by symptoms. Diagnosis of nodular goitre is based on palpation data, thyroid ultrasound examination of the gland, indicators of thyroid hormones, fine needle puncture based on biopsy, scintigraphy, X-ray of the esophagus, CT or MRI. In endocrinology, the term "nodular goiter" is associated with various nosological forms refers to the volumetric formation of the gland. Symptoms of nodular goitre are detected in 40-50% of the population; in women, nodular goitre occurs 2-4 times more often and is often combined with uterine fibroids. By palpation, as a rule, nodules with a diameter of more than 1 cm are identified; of circumstances in more than half the nodules are not palpable and only during ultrasound examination of the thyroid gland is found. Multinodular goiter when two or more nodular formations are found in the thyroid gland is called The importance of identifying and monitoring patients with nodular goitre exclusion

of cancer, as well as functional autonomy of the thyroid gland and thyrotoxicosis the need to determine the risk of development, to prevent the occurrence of cosmetic defects and compression syndrome related to Causes of nodular goitre The reasons

for the development of thyroid nodules are not fully known. Nodular colloid proliferation The etiology of goiter is unclear: most often as an age-related change in the thyroid gland is considered. In addition, iodine deficiency predisposes to colloid goiter. In regions with iodine deficiency cases of multinodular goitre with symptoms of thyrotoxicosis are common. Among the risk factors for the development of nodular goitre are genetic diseases (Klinefelter et al Down syndromes), harmful effects of the environment (radiation, toxic substances), trace elements lack, drugs, smoking, stress, viral and chronic bacterial and infections, especially includes chronic tonsillitis. Symptoms of nodular goiter In most cases, nodular goitre does not have a clinical appearance. Large nodules in the neck area betrays as a visible cosmetic defect - its front surface is significantly thickened. Knotted with goitre, the expansion of the thyroid gland occurs mainly asymmetrically. As the nodules grow, they compress the neighboring organs (esophagus, trachea, nerves and blood vessels). begins, which is accompanied by the development of mechanical signs of nodular goiter. Larynx and trachea tightness, "lump" feeling in the throat, constant hoarseness, increased breathing, long-term manifested by dry cough, suffocation attacks. Esophageal constriction makes swallowing difficult. Symptoms of vasoconstriction include dizziness, ringing in the head, and superior vena cava syndrome may develop. Pain in the area of the node due to its rapid increase in size, inflammation or blood may be related to his departure. Usually, the work of the thyroid gland is not disturbed with nodular goitre, but hyperthyroidism or hypothyroidism is possible. Bronchitis, pneumonia, COPD with hypofunction of the thyroid gland there is a trend; heart pain, hypotension; drowsiness, depression; gastrointestinal diseases (nausea, loss of appetite, flatulence). Dry skin, hair loss and low body temperature is characteristic. Against the background of hypothyroidism, growth and mental development in children may slow down; in women - menstrual disorders, spontaneous abortions, infertility; in men - decreased libido and potency. Symptoms of thyrotoxicosis in nodular goiter are long-lasting low-grade fever, tremors in the hands, insomnia, nervousness, constant hunger, weight loss, tachycardia, exophthalmos, etc.



mcg - for newborns and babies up to 12 months;

90  $\mu$ g – for children 2-6 years old;

120 μg - for schoolchildren aged 7-12;

 $150 \mu g$  – for adults over 12 years old;

200 μg - for pregnant and lactating women.

A consequence of iodine deficiency. Diseases caused by iodine deficiency include a number of pathological conditions, including goitre, hypothyroidism, cretinism, deaf-muteness, deafness, spastic paraplegia, mental retardation, smallness, increase in stillbirths, birth defects and perinatal deaths including 7 symptoms of iodine deficiency

- 1. Feeling tired
- 2. Depression, drowsiness
- 3. Decreasing mental intelligence
- 4. Hormonal metabolism disorder
- 5. Noise in the ears
- 6. Ventilation
- 7. Anemia, dizziness

Especially hair loss (dry, brittle hair, excessive shedding when combing), dry skin, constipation (constipation), fatigue, drowsiness, depression, memory loss, etc are typical signs of hypothyroidism (sudden reduction of thyroid gland activity). Thyroid gland diseases, its enlargement (goiter), increase in activity (hyperthyroidism), decrease (hypothyroidism), inflammation (thyroiditis) and the appearance of a tumor of dangerous and safe quality. We are required to comply with the following recommendations.

-Salt quality and iodization treatments;

-Factors affecting loss of iodine in salt - packaging, salt transportation, storage, food preparation; local cooking styles (use of salt and cooking characteristics).

The remedy for iodine deficiency consists of iodine and iodized potassium, and differs in that its composition additionally includes  $\beta$ -cyclodextrin and iodocasein, in which components the ratio is as follows, e.g. %: crystalline iodine - 5.4;

potassium iodide - 54.1;  $\beta$ -cyclodextrin - 35.1; iodocasein - 5.4 creates. Summary: Eat as many iodine-rich foods as possible to meet your daily iodine intake we should consume products. Or, of course, regular preventive and curative iodine preparations we must accept it. We pay close attention to the problem of iodine deficiency and try to find as positive a solution as possible. and we will try hard to protect public health.

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