Iodine:

Iodine deficiency in the United States and many western societies has been practically limited due to the iodization of table salt. However, there are still people who live in areas where there is iodine deficiency in the soil used in their agriculture, or because they are not aware of The type of salt consumed and the impurities in it, etc. suffer from iodine deficiency, or people who live in low-altitude areas receive large amounts of goitrogenic substances, which reduce iodine consumption by the thyroid gland.

Normally, the body contains 20-30 mg of iodine, more than 75% of which is located in the thyroid gland, and the rest is distributed in different tissues of the body, such as mammary glands, gastric mucosa, and blood.

Absorption, transport, storage and disposal:
Iodine is easily absorbed in the form of iodide. It exists in the blood circulation in a free form bound to proteins, but the bound form of iodine is more abundant. Iodine is excreted mainly through urine, but small amounts are also due to bile secretion. It is present in feces.
Function :
Dietary iodine is necessary for thyroid hormone synthesis. Iodine is stored in thyroid food and is used for the synthesis of T3 and T4. Selenium is important in iodine metabolism due to its presence in one of the enzymes responsible for the formation of active T3 from thyroglobulin stored in thyroid food.

food sources:

Seafood such as oysters, crabs, sardines and other saltwater fish are the richest sources. The best way to ensure adequate intake of iodine is to use refined iodized salt in food preparation.

Precautions:

Pregnant and lactating women should be especially careful about getting enough iodine. Since iodine deficiency has its greatest effect on the fetus and newborn child, vegetarians who do not consume animal products and depend on soy for their protein source are at risk. More iodine deficiency than normal people.

Complications of iodine deficiency in different periods of life:

During pregnancy: miscarriage, fetal brain development disorder, birth of a baby with severe mental and physical retardation and deafness and muteness (cretinism.(

Childhood: mental retardation, organ growth delay, physical disability, muscle disorders, speech disorder, hearing disorder.

Iodine deficiency reduces children's IQ by 13.5 points.

Adolescence: goitre, hypothyroidism, retardation of mental and physical development.

Adults: goitre, early fatigue, reduced efficiency.

Why refined salt:

Impurity of salt causes its salinity to be hidden.
Iodine collected from salt mines contains the following impurities:

- ☐ Calcium sulfate or gypsum, which is unrecognizable due to its whiteness.
- ☐ Mud that darkens the color of salt.
- ☐ Heavy metals, which are insignificant in terms of quantity, but important in terms of causing adverse effects and poisoning in the human body.

Refining salt in industries is a basic solution to remove salt impurities.

Due to its purity, iodine in refined salts is better preserved in the cooking process.

How much and what kind of salt to use

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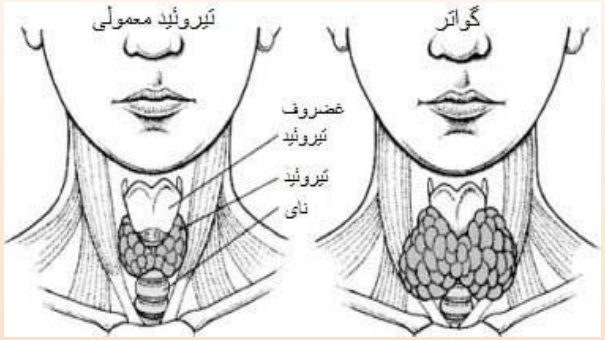

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Iodine is not stored in the body for a long time; As a result, it is necessary to receive a small amount of it regularly through food, and the easiest way to get iodine is to use refined iodized salt.

Warning: the required amount of salt is 3 to 5 grams per day

Iran is one of the most consuming countries in terms of salt consumption, so that the average salt consumption in Iran is 2 to 3 times the world standard, so reduce your salt intake to the recommended amount per day and definitely add this amount at the end of cooking for To get enough iodine for the body, it should be added to the food and on the other hand, put the recommended amount of refined iodized salt.

Interference:

Some foods contain substances called goiters that interfere with the body's ability to absorb or use iodine. These foods include broccoli, cabbage, cauliflower and broccoli. Other foods that contain goitrogens are canola oil, soybeans, turnips, peanuts, and cassava. These foods do not cause iodine deficiency unless accompanied by a very restricted diet.

Selenium deficiency enhances the effects of iodine deficiency. Vitamin A deficiency can also enhance iodine deficiency.