Iodine is a trace element, essential in the synthesis of thyroid hormones. Iodine deficiency affects about two billion people and is the leading preventable cause of intellectual disabilities. From 20 to 30 mg of iodine that exist in the adult human body, 8-10 mg are concentrated in the thyroid gland, which has a special need for this element. For adults who lead a normal way of life is enough 60-70 µg daily (one µg per kilogram), but it is considered that optimal quantity is about 100-200 µg daily. Recommendations are between 40 and 50 µg for infants up to 12 months, 70 - 90 µg for children up to seven years, 120-150 µg for students. In areas where there is little iodine in the diet, iodine deficiency gives rise to hypothyroidism. An efficient prophylaxis of endemic dystrophy is administration of iodized salt. The addition of iodine to table salt has largely eliminated this problem in the wealthier countries and served as a method of prophylaxis of endemic goiter. For iodine loss prevention, salt must be pure, kept in cool dry spaces and used only within the validity period.

We conducted the market analysis of the salt assortment present in the food shop. The assortment is presented by 27 types of kitchen salt, of which 7 are expensive. From the remaining 20 types, only 6 are iodized. Under laboratory conditions, using ionometry and spectrophotometry, we tested these 6 types of iodine salt for real iodine presence. The experience has been repeated over 15 days to see the dynamic stability of iodine in salt, and over the next 2 years, the experience has been repeated every 6 months to see the changes that have occurred.

In most salt samples tested, iodine concentration was determined within the normal range, except for one type of salt imported from the European Union, with a 19.42 mg/kg concentration at first test and 17.96 mg/kg after 15 days, which proves instability of the iodine compounds and a concentration below the initial limit. Otherwise, was determined the elimination of the iodine compounds from 1 to 4 percent in 15 days from the initial concentration at the opening of the pack and during the 6 months, the percentage reached 10% of the initial concentration.

In the Republic of Moldova most of the salt on the market is non-iodized. Iodized salt in the Republic of Moldova corresponds to the iodine load of 83% of the total volume marketed in municipal food shop networks.