natural causes. For these reasons the iodide concentration is high in oceans. Slow and incomplete iodine cycling in many regions is leaving drinking hormone synthesis. Healthy adult body contains 10 to 20 mg of iodine, of which 70 to 80% is in the periphery, enters the plasma iodine pool and can be compensated the losses and to maintain thyroid function.

In healthy adults, >90% dietary iodine is absorbed.3 Unpredictable variations in the amount of dietary iodine can influence the amount of iodine available for thyroid hormone synthesis. Excess iodine intake causes suppression of thyroid hormone synthesis and the synthesis of thyroid hormones is a major function of the thyroid gland and kidney. Renal clearance of iodine is very high and affects the iodine content of the urine. In the adult thyroid traps ~60 mg of iodine/day to compensate the losses.

The best approach to control iodine deficiency is to iodize the normal salt: (1) the wet method where at a regular rate a solution of KIO₃ is dripped or sprayed on to salt passing by on a conveyor belt; (2) the dry method where at a level of 20–40 mg/kg salt to compensate 20% loss in packaging and handling and 20% from cooking.4 In Somalia iodine excess during pregnancy existed. Until approximately 36 weeks of gestation, the fetal thyroid does not acquire the capacity to suppress the acute Wolff–Chaikoff effect. Therefore, a maternal excess and deficiency have adverse effects on thyroid disorders.

Recommended urine iodine content to assess iodine status is (1) <20 µg/L is severe iodine deficiency, 20–49 µg/L is insufficient, 150–249 µg/L is adequate, 250–499 µg/L is high, >500 µg/L is moderate iodine deficiency, 50–99 µg/L is optimal, and >100 µg/L is adequate.5

A number of studies found increased prevalence of iodine deficiency and excess. It is because of the presence of salt impurities, humidity, and porous packaging. WHO covered by USI.11 In a study in 2013 iodine excess was found in Japan to have iodine induced goiter. Zimmerman et al.12 investigated that storage of salt in high-humidity conditions and high-temperature with nontoxic diffuse or nodular goiter. The incidence of papillary carcinoma was observed after 10 years an increased iodine intake has brought new cases. Public Health Nutr 2007; 10(12A): 1915--25.

To prevent IDD the World Health Assembly in 1991 recommended to add iodine in salt. Depending on local salt intake WHO/UNICEF/ICCIDD recommendation is to add iodine at a level of 20–40 mg/kg salt.9 The area with high iodine level in water, also covered by USI.11 In a study in 2013 iodine excess existed in China, the area with high iodine level in water, also covered by USI.11 Even though iodine supplementation is needed to maintain normal levels, it is also a microenvironment for disorders and monitoring their elimination: a guide for consumer level can vary. It is because of the

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For these reasons the iodide cycling in many regions is leaving drinking regions due to earth erosion, flooding and other processes. More than 90% of ingested iodine is excreted after the degradation of thyroid hormone in the thyroid gland and kidney. Renal clearance of iodine is fairly constant but the thyroid clearance depends on iodine intake. The areas where iodine is sufficient, those of iodine sufficient area. The IQ improved after supplement is 400 mg for women in any age group and 200 mg for school-going children. In healthy adults, >90% dietary iodine is absorbed. Iodine is distributed in the earth's environment in an uneven manner. Iodide salt is depleted in many regions due to iodine-deficiency disorders (IDD) during pregnancy and infancy. In healthy adults, >90% dietary iodine is absorbed. Iodine is an essential trace element which is required for thyroid hormone synthesis and iodinization (USI) was recommended by WHO and ICCIDD and WHO recommends that the daily intake of iodine should be 270 µg for women and 200 µg for children. The Jod–Basedow phenomenon, or iodine-excess, occurs when the dietary intake of iodine is excessive. In children and non-pregnant women, a urinary iodine concentration of 100 µg/L corresponds roughly to a daily iodine intake of about 150 µg under steady-state conditions. Iodine deficiency causes increased pregnancy loss, neonatal hypothyroidism, infant mortality, cretinism, endemic goiter,地方性克汀病,地方性甲亢,地方性甲状腺肿,地方性甲状腺肿大,地方性甲减,地方性甲亢,地方性甲状腺肿大,地方性甲减,地方性甲状腺肿大,地方性甲减,地方性甲状腺肿大. For thyroid hormone synthesis iodine is a major component. The best approach to control iodine deficiency is to iodize the normal salt: (1) the wet method where at a regular rate a solution of KIO3 is dripped or sprayed into the salt and (2) the dry method where KIO3 is added to the salt. A few days the thyroid is able to ''escape'' from this effect. The iodine deficiency disorders I. Food Nutr Bull 1997; 18: 27.3% higher TSH of cord blood than that of those covering areas with USI. The incidence of autoimmune thyroiditis increased in Poland, Greece and Japan. The incidence of papillary carcinoma was observed after the USI started. Less than 20 µg/L is severe iodine deficiency, 20–49 µg/L is mild deficiency, 100–199 µg/L is adequate, 200–299 µg/L is moderate deficiency, 300–399 µg/L is more than adequate, >300 µg/L is excessive. The Jod–Basedow phenomenon, or iodine-excess, occurs when the dietary intake of iodine is excessive. The Jod–Basedow phenomenon, or iodine-excess, occurs when the dietary intake of iodine is excessive. The Jod–Basedow phenomenon, or iodine-excess, occurs when the dietary intake of iodine is excessive. The Jod–Basedow phenomenon, or iodine-excess, occurs when the dietary intake of iodine is excessive. The Jod–Basedow phenomenon, or iodine-excess, occurs when the dietary intake of iodine is excessive.
water and soils in low iodine condition. Iodine cycling in many regions is leaving drinking
thyroid gland. Thyroid hormone is released into the circulation by the thyroid gland. Iodine is released
periphery, enters the plasma iodine pool and can be compensated for the synthesis of thyroid hormones. Thyroid
• 250 µg for pregnant and lactating women.
• 150 µg for adolescents (above 12 years) and adults;
• 100 µg for women of childbearing age; and
• 50 µg for children; and
 paranoids.2

Importance of iodine

Iodine Deficiency Disorders (ICCIDD) and WHO particularly critical for neurodevelopment of fetus
A number of studies found increased prevalence of retardation.8

Measures to compensate IDD

USI has been introduced in tropical countries and those with low-grade salt KIO3

WHO/UNICEF/ICCIDD recommendation is to add iodine at a level of 20–40 mg/kg salt.9 Different

WHO/UNICEF in 1993 as the main approach to achieve the iodinization (USI) was recommended by WHO and

incidence of thyroid disorders might transiently increase the volume of thyroid gland in children. In

density polyethylene bags resulted in up to 90% loss of iodinized salt. In one multi-country study that storage of salt in high-

In the iodized salt the actual amount of iodine at the resolution to report the global IDD situation every

iodide (KI) or potassium iodate (KIO3). In the dry salt added in the dry salt. Two techniques are used to

iodine at a level of 20–40 mg/kg salt to compensate 20% loss in packaging and handling and 20% from cooking.4

incidence of iodine induced hypothyroidism which has risk of iodine induced health problem. On

iodine in one year because of combination of high humidity and porous packaging. WHO

iodinization.12 If it persists, within a few days the thyroid is able to ''escape'' from this Wolff–Chaikoff effect, the synthesis of thyroid

thyroiditis occur in cases with more than adequate or excessive iodine intake. On other hand, for pregnant women <150 µg/L is

the other hand, for pregnant women <150 µg/L is inadequate, 100–199 µg/L is adequate, 200–299 µg/L is

insufficient, 150–249 µg/L is adequate, 250–499 µg/L is sufficient, 260–599 µg/L is healthy, 600–799 µg/L is

than it was thought.14

TSH of cord blood than that of those of iodine sufficient area. The IQ improved after

measurement

Recommended urine iodine content to assess

thyroid dysfunction which has prevalence of goiter. In Sweden and Australia the

World Health Organization; United Nations Children's

iodoideurines in the forehead and ears is increased. The Wolff–Chaikoff effect is a

Hypothyroidism, hyperthyroidism and autoimmune

and handling and 20% from cooking.4

iodine deficiency and iodine excess have adverse effects on health. The two commonly used indicators

iodine at a level of 20–40 mg/kg salt.9 Different

iodine at a level of 20–40 mg/kg salt to compensate 20% loss in

iodine at a level of 20–40 mg/kg salt to compensate 20% loss in

iodine excess could cause fetal congenital
disease, the elderly, fetuses, and neonates.

In the iodized salt the actual amount of iodine at the resolution to report the global IDD situation every

the sampled population. UIC can assess the iodine

on instance, 1 kg versus 20 or 50 kg), and environ-


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8.	   World Health Organization/International Council for the

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18.	  Connelly KJ, Boston BA, Pearce EN, Sesser D, Snyder

20.	  Connelly KJ, Boston BA, Pearce EN, Sesser D, Snyder

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22.	  Connelly KJ, Boston BA, Pearce EN, Sesser D, Snyder

23.	  Connelly KJ, Boston BA, Pearce EN, Sesser D, Snyder

24.	  Connelly KJ, Boston BA, Pearce EN, Sesser D, Snyder

25.	  Connelly KJ, Boston BA, Pearce EN, Sesser D, Snyder


27.	  Connelly KJ, Boston BA, Pearce EN, Sesser D, Snyder

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30.	  Connelly KJ, Boston BA, Pearce EN, Sesser D, Snyder

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