



Iodine Testing in Dried Urine

The Iodine Challenge

Approximately 2 billion people are iodine deficient. Iodine deficiency is resurfacing in developed countries like the U.S. and Western Europe as efforts are made to reduce the consumption of iodine-containing salt and foods (eggs and dairy) to lower blood pressure and blood lipids.

Adequate iodine is essential at all stages of life

In the developing foetus, an adequate iodine supply from the mother is essential for thyroid hormone production, which is vital for proper neurological development. In children and adults, iodine deficiency can lead to lower thyroid hormone synthesis and consequent symptoms and conditions of hypothyroidism.

High iodine levels can be problematic

High iodine levels, resulting from consumption of high iodine containing foods (e.g., seaweed) or iodine medications or supplements, can also disrupt normal thyroid function.

How much iodine is needed for optimal thyroid Health?

The World Health Organisation (WHO) and other international organisations recommend consumption of 150 µg of iodine daily for non pregnant adults and have set 1,100 µg as the upper level of tolerance.

Iodine's Role in Extrathyroidal Tissues

Iodine serves many different and protective roles in the body, including those of an antioxidant, antimicrobial, anti-proliferative, and anti-carcinogen. Iodine also forms bioactive conjugates with lipids and proteins, enabling it to function as an antiproliferative and prevent abnormal benign growths as well as cancers.

Iodine helps prevent infection

Iodine's effectiveness as an antimicrobial has been known for over a hundred years as it has been used for preoperative surgical skin preparation to prevent infection. Iodine from the bloodstream concentrates in a broad spectrum of tissues that are repeatedly exposed to infectious organisms. Uptake of iodide by these tissues and enzymatic formation of reactive iodine compounds serve the role of a protective antimicrobial, working in concert with the immune system.

We are here to help

If we can help in any way just call UK 01580 201 687 or Denmark +45 33 75 1000. Our highly experienced Nordic Laboratories Practitioner Support Team will be more than happy to provide you with assistance, including ordering test kits and checking on test progress.



Measure iodine levels in dried urine

Iodine plays many different roles in optimising health and it is essential that adequate iodine intake is maintained and problems associated with low or excessive iodine intake are identified and treated appropriately. Nordic Laboratories has a simple and convenient test to measure an individual's iodine level in urine dried on a filter strip – developed to circumvent the more cumbersome collection of all urine over a 24 hour period.

Advantages of Dried Urine

- Urine collection and shipment of the dried filter strips are simple and convenient for the patient and practitioner.
- Dual collections of urine directly on a filter strip, upon awakening and just before bed, are far more convenient and less subject to the inherent inaccuracies of a 24 hr urine collection.
- Iodine and creatinine in dried urine are exceptionally stable for weeks at room temperature allowing more flexibility in collection, shipment, testing, and storage.
- Iodine results expressed in μg iodine per litre urine and per mg creatinine helps to normalise results when problems exist with urine that is very concentrated or dilute.
- Iodine testing allows for determination of iodine status based on CDC and WHO guidelines for thyroid sufficiency, as well as extra-thyroidal sufficiency.

Iodine Sufficiency & the Thyroid Gland

Controversy exists as to how much iodine consumption is optimal. Sufficiency for the thyroid (about 150-300 μg daily consumption of iodine) is probably much lower than sufficiency for other tissues that are known to concentrate iodine, such as the breast. Studies in humans have shown that for iodine to be protective (prevent benign breast disease such as fibrocysts), a minimum of 3,000 μg and optimally 6,000 μg or more of daily iodine consumption is required. These breast-protective levels are more consistent with the amounts of iodine consumed in countries like Japan, where the breast cancer rate is only about one-fifth that of countries with much lower iodine consumption.

Assay Validation

The Iodine test we offer is included in the EQUIP (Ensuring the Quality of Iodine Procedures) iodine standardisation program where multiple urine samples are tested for iodine content and compared with values generated by ICP-MS at CDC and other labs performing iodine testing around the world.

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