

*Test nr.*

*Collected*

*Patient Name*

*Doctor Name*

*Patient nr.*

*Practitioner Address*

*DOB*

*Sex*

*Received*

*Tested*

Test Name	Result	Units	Range
Iodine/Cr	47.58	L µg/g Cr	100-1100 (100-300 optimal)
Creatinine	2.69	mg/mL	0.3-3.0

**Therapies**

None Indicated

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**Lab Comments**

**IODINE:**

Urinary iodine/creatinine falls into the reference range that is considered very low on the day tested. According to the Center for Disease Control (CDC) and other agencies that have studied the relationship of thyroid function to iodine deficiency and iodine excess in large population groups, cutoffs for degrees of iodine deficiency, sufficiency, and excess in ug/L urine (very similar when expressed as ug/g creatinine) are: < 20 = severe iodine deficiency; 20-49 = moderate iodine deficiency; 50-99 = mild iodine deficiency; 100-300 = no iodine deficiency; > 300 = iodine excess (Zimmerman MB, Endocrine Reviews 2009, 30(4): 376-408). Iodine is an essential component of thyroid hormones, T3 and T4 and when urinary iodine levels drop below about 50 ug/g creatinine the thyroid gland is less able to synthesize adequate thyroid hormones. The presence of goitrogens in common foods (e.g. soyfoods and cruciferous vegetables) as well as environmental toxins (perchlorate, polybrominated biphenols, bromine, fluoride, arsenic, mercury) can exacerbate a low iodine condition by inhibiting iodine uptake and thyroid hormone synthesis.

Your iodine test result represents an average of the urinary iodine excreted for a single day, and is reflective of your dietary/supplement iodine consumption over the last several days. If your daily diet is representative of the day you tested then you are likely iodine insufficient, and should consider increasing intake of foods that contain iodine (e.g. seafoods, seaweed, dairy, eggs) or take a supplement containing at least the RDA for iodine. It is important to note that this test, and any other 24 hr urine iodine test, can not be used to determine if you have a chronic iodine deficiency, which requires multiple testing over at least 10 days or blood testing of other markers of iodine deficiency (i.e. blood levels of total T4, TSH, and thyroglobulin). Iodine deficiency over weeks and months results in lower blood levels of total T4 and higher levels of thyroglobulin and TSH. Prolonged deficiency over months and years results in thyroid gland enlargement in the form of thyroid nodules or goiter. Thyroid hormone and thyroid marker testing, in combination with urinary iodine, help confirm a chronic iodine deficiency problem. Since the iodine in this test result is exceptionally low, the thyroid deficiency blood markers should be evaluated to determine if the low iodine is affecting thyroid hormone synthesis.

Natural sources of iodine are highest in seafoods (fish, seaweed) with lesser amounts found in milk products and eggs. Vegans who do not eat sea vegetables or take iodine supplements are more likely to suffer from iodine deficiency and associated iodine deficiency disorders (e.g. thyroid problems). For an excellent and brief NIH-sponsored Medline review on iodine dosage recommendations and potential side effects of iodine supplementation please view: [www.nlm.nih.gov/medlineplus/druginfo/natural/35.html](http://www.nlm.nih.gov/medlineplus/druginfo/natural/35.html)