

THYROID HORMONES (T3 AND T4) IN 24H URINE

A Solution to the Diagnosis of HYPOTHYROIDISM

Many structural or functional abnormalities of the Thyroid gland can lead to deficient production of thyroid hormones. The clinical state resulting therefrom is termed **hypothyroidism**. The onset of hypothyroidism may be subtle and often may go undetected for many years while the patient's health gradually deteriorates. Hypothyroidism is one of the most under-diagnosed conditions.

The diagnosis of this illness by conventional doctors and endocrinologists is made almost exclusively from blood tests. Routinely, Thyroxin (T4) and Thyroid Stimulating Hormone (TSH) are measured in plasma or serum. These tests correlate poorly with the clinical status of the thyroid-diseased patient.^{1,2} The explanation is that TSH is grossly in feedback with serum T4 only, not so much with serum T3, while the patients well-being depends on the free T3 that is disposable inside the cells.

Clinical research had pointed out that the 24h urine free T3 (and T4) test is a reliable test, more accurate than serum T4 and free T4 and serum TSH test in the diagnosis of thyroid disease and the follow-up and treatment. It has a far better correlation with the clinical thyroid status of a patient than any classical test.^{1,2}

REMARK

Under treatment it is useless to determine T3 in 24h urine before the desired dose is taken for at least two months. Conversely it takes three weeks before a new clinical steady state is obtained after stopping treatment.¹

TEST INDICATIONS

The eight main symptoms of hypothyroidism are:

- Fatigue (unusual, persistent, esp. on awakening)
- Depression (with tendency towards suicide)
- Coldness
- Headache (migraine, tension headache)
- Muscle cramps
- Constipation
- Arthritis (rheumatoid pain, joint, tendon and muscle swelling and stiffness)
- Prolonged Achilles' tendon reflex

Other testindications are:

- Amenorrhea
- Basal temperature (low, < 36.7 C)
- Burning or tingling pain in the extremities
- Carpal tunnel syndrome
- Cholesterol, triglycerides and homocysteine (increased)
- Delayed Fertility
- Dysmenorrhea
- Growth and intellectual retardation
- Hair (coarse and dry)
- Hair loss
- Heart rate and pulse pressure (decreased)
- Hoarseness
- Repeated Infections esp of sinus, respiratory and urinary tract
- Lack of appetite
- Memory (impaired)
- Mixoedema
- Premenstrual tension
- Skin (dry, scaly and thick)
- Weight change (unexplained)

COMPLEMENTARY TESTS

- Elements in blood (esp zinc, selenium and manganese)
- Stress test

LITERATURE

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3. Norman G Schneeberg M.D. 'Hypothyroidism: the missed diagnosis', Endocrinology 8-12.

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