



OPTIONS CENTER HEALTH TOPIC



THYROID PANEL – Saliva Test

The thyroid gland is a very important gland located in the front of the neck. It secretes several life-sustaining hormones directly into the circulation. The activity of this gland in normal individuals is controlled by the pituitary gland in the brain. The thyroid hormones control energy production in the powerhouse (mitochondria) of our body cells. These hormones contain iodine and include the two pivotal and metabolically active hormones called Thyroxine (T4) and Triiodothyronine (T3).

Brain Control of the Thyroid

The pituitary gland in the brain secretes a powerful hormone called Thyroid Stimulating Hormone (TSH) which, in turn, stimulates the thyroid to produce its hormones. High T4 and T3 usually suppress TSH production, while low T4 and T3 stimulate its production. Elevated TSH usually implies a weak thyroid gland, while suppressed or low TSH values may suggest a hyperactive thyroid.

What is Thyroid Autoimmune Disease?

Our immune system, under certain conditions, may form antibodies and attack our thyroid gland tissue. The autoimmune state may follow an infection, trauma, or have no apparent known reason. About 10% of the normal US adult population (more in women than men) has an undetected (occult) autoimmune thyroid disease which can be detected by our saliva test.

Major Functions of Thyroid Hormones

The thyroid hormones exert multiple effects that are summarized in part below:

1. Metabolic Rate. Thyroid hormone is known to increase the metabolic rate, thus affording an optimal body temperature.
2. Carbohydrate Metabolism. Thyroid hormones stimulate all aspects of carbohydrate processing in the body. They increase the rate of glucose absorption from the bowel and promote secretion of insulin.
3. Fat Metabolism. Thyroid hormones mobilize fat from its body stores and stimulate the use of fat for the body's energy needs. This causes the person to lose fat. For this reason, long-term hyperthyroidism causes wasting of the body.
4. Effect on Vitamins. An increase in thyroid activity leads to rapid utilization of vitamins and cofactors. This can lead to marginal or outright vitamin deficiencies. Supplemental vitamins are usually recommended for hyperthyroid people.

5. Effect on Sexual Function. Both reduced and excessive thyroid hormone levels lead to reduced libido in both sexes. Additionally, in women with low thyroid hormone levels, persistent and excessive vaginal bleeding is common.
6. Effect on Sleep. Because of the exhausting effect of thyroid hormone on the musculature and central nervous system, hyperthyroid people often feel tired, yet they cannot sleep well. On the other hand, low thyroid causes sleepiness throughout the day.
7. Effect on Calcium Absorption and Bone Health. The thyroid produces an important hormone called *calcitonin* which tells calcium where it should go. When the thyroid is sluggish, it doesn't produce enough calcitonin. Calcium can then go to unwanted places, such as soft tissue, and cause arthritis. Bones may not get the calcium they need and this leads to osteoporosis.

Typical Symptoms of Low Thyroid Function (Hypothyroid)

- ▶ Fatigue/Lethargy
- ▶ Dry skin & hair
- ▶ Hoarse/slow speech
- ▶ Cold Intolerance
- ▶ Facial Swelling
- ▶ Constipation
- ▶ Weight loss/gain
- ▶ Excessive menstrual flow



Typical Symptoms of Overactive Thyroid Function (Hyperthyroid)

- ▶ Nervousness/Anxiety
- ▶ Fatigue
- ▶ Palpitations
- ▶ Increased Appetite
- ▶ Weight loss
- ▶ Increased sweating
- ▶ Bowel hyperactivity
- ▶ Sleep disturbances

Helen can help decide if the saliva test for the thyroid is appropriate for you. Call Options to make an appointment.

Information taken from [Diagnos-Techs, Inc. \(DTI\)](#) Thyroid Panel Patient brochure.