

A Primer on Thyroid Health

BY **BIJANA KADAKIA, ND**

When people refer to a glandular issue contributing to weight gain or difficulty losing weight, the gland they may be referring to is the thyroid gland. The thyroid gland is a

butterfly shaped organ located in the throat which produces two thyroid hormones, T3 and T4, which play an important role in regulating metabolism. Metabolism, in this sense, isn't just how quickly we burn calories. Metabolism refers to all the processes of the body. Dysfunction in the thyroid gland can cause symptoms as diverse as heart palpitations, hair loss, weight issues (both gain and loss), body temperature control, constipation, fatigue, anxiety and dry skin.



Evaluating if thyroid is the cause of your symptoms can be started with a simple blood test. The first line of testing is usually a TSH or thyroid stimulating hormone. TSH is released by the pituitary gland to tell the thyroid to produce and secrete more thyroid hormones. It is affected by the levels of thyroid hormone circulating through the body and by other hormones, including cortisol, one of our major stress hormones. We expect to see TSH rise in cases of hypothyroid,

because lower levels of thyroid hormone stimulate the pituitary to release more TSH. However, TSH is inhibited by high levels of circulating cortisol, which means that a normal TSH may not be the whole story.

At True Health, we usually include testing the levels of free T4 and free T3 in our thyroid panels, because this helps to round out the information provided by TSH. If the hormone levels themselves are off, a normal TSH becomes less reliable. Testing the levels of T4 and T3 also allows us to consider if appropriate conversion is happening. T3 is considered the "active" form of thyroid hormone and less of this is secreted directly from the thyroid gland. T4 is the inactive form, but is usually easily converted to T3 by the body. The levels

of T3 and T4 can point to issues of conversion which can often be addressed with targeted nutritional supplements that aid the process.

If the levels of T4 and T3 are low, we can also consider supplementing with thyroid hormone to correct this imbalance. This usually results in improvement in the symptom picture, but can be a little more complicated depending on the cause of the low thyroid levels. Two common causes of thyroid issues are adrenal fatigue and autoimmune thyroiditis, also known as Hashimoto's disease. The adrenal glands are the glands that secrete cortisol in response to stress. An analogy I use with patients is that we used to release cortisol only when we were being chased by a bear, but now we're faced with bears all day in the form of traffic, financial concerns, war and other stressors. For some people, this fatigues these organs resulting in dysfunctional production of cortisol which feeds back into the control loops that control the thyroid, like TSH. In this case, supplementing thyroid hormones may help somewhat, but without addressing the adrenal glands, symptoms may continue or the patient may need increasing levels of thyroid hormones over time. In next month's article, Dr. Rogers will address the adrenal gland in more detail.

In the much more potentially complicated case of Hashimoto's or autoimmune thyroiditis, the body's immune system is attacking the

thyroid gland itself and sometimes the thyroid hormones it produces. This affects the type of thyroid medication and supplementation that should be used. For example, thyroid supplements containing iodine may not be appropriate for people with Hashimoto's hypothyroidism as it can cause toxicity symptoms. Likewise, certain glandular forms of thyroid medication may also be attacked by the body's immune system, resulting in no improvement or even worsening of symptoms. Even more concerning is that many patients have been taking thyroid hormones or glandular treatments for years without ruling out autoimmunity as a cause. This results in an underlying increase in immune activity, increased inflammation, further destruction of the thyroid gland and may contribute to the development of additional autoimmune conditions.

At True Health Medicine, we understand thyroid disease and have experience evaluating both thyroid function and its underlying causes. If you have or suspect thyroid dysfunction, visit our website or call to make an appointment.



Bijana Devo Kadakia is a naturopathic physician and licensed acupuncturist with True Health Medicine, PC, a group practice of naturopathic physicians and acupuncturists. The clinic is located at 8555 SW Tualatin Road, Tualatin, OR. 503-691-0901.