

THYROID HORMONE

I kept going from doctor to doctor searching for the cause of fatigue and feeling lousy. The doctors always told me that my thyroid was normal but I knew it wasn't. Thanks to being on the right dose and the right kind of thyroid, I finally feel normal.

Thyroid hormone is a metabolic hormone secreted by the thyroid gland. It regulates temperature, metabolism, and cerebral function, which results in increased energy, temperature and warmth. It increases fat breakdown resulting in weight loss as well as lower cholesterol. It protects against cardiovascular disease by lowering cholesterol. It improves cerebral metabolism and prevents cognitive impairment. It relieves symptoms of thin, sparse hair, dry skin, and thin nails. Thyroid affects every cell in the body.

People who suffer from low thyroid function tend to experience fatigue and low energy, slowness in their thinking and actions, forgetfulness, mental confusion, depression, arthritis-like pain and susceptibility to colds and infections. Many of these aspects are considered normal aging. However now we know that it is secondary to thyroid insufficiency. The thyroid hormone can be indispensable component of your hormone regimen. Thyroid production declines as we age, similar to other hormones. This is not considered to be true hypothyroidism but rather a thyroid insufficiency, which has in the past been thought to not require hormone replacement. Research has now shown that improving thyroid levels will alleviate many of the symptoms of thyroid insufficiency and allow our system to function more effectively and efficiently.

Thyroid hormone initially is produced in the thyroid gland as T-4. Once in the body, the circulating T-4 is converted to the active form of thyroid called T-3. As we age, this conversion becomes less effective. In addition, the production of T-4 also diminishes thereby resulting in less stimulation of the cells. Our body needs thyroid hormone for metabolism. If metabolism is low due to an inadequate supply of thyroid hormone it will adversely affect every organ and system in the body. We will have less energy as well as the symptoms of thyroid insufficiency. In addition, the conversion of T-4 to the active form of T-3 also diminishes, resulting in less stimulation of the cells. Mitochondria need thyroid hormone to burn oxygen and produce ATP, which is the fuel that runs the body if the mitochondria are weakened due to an inadequate supply of thyroid hormone, then we will not be able to burn up proper amounts of oxygen thereby giving us less energy and symptoms of thyroid insufficiency. In addition, we will be unable to keep up mentally and physically as we once did. Also our immune system becomes weaker and less effective. Physicians have been hesitant to supplement thyroid hormone largely due to lack of understanding of the importance of optimal thyroid levels and the relationship to improving the quality of life.

Over the years, I have seen hundreds of patients that complain of fatigue, lack of energy, weight gain and all the typical symptoms of low thyroid. Every time these patients have been seen by their doctors, they are told that there is no problem with their thyroid because their tests are normal. Patients seem to know that there is a problem with their thyroid, but physicians refuse to acknowledge this. Many patients treated with synthetic T-4 products will still experience hypothyroid symptoms even though the laboratory test values appear normal to their physician. This is because a physician tends to rely on one thyroid test, the TSH or thyroid stimulating hormone, which is an indirect measurement of thyroid function. The new paradigm is to measure the free hormones in our body, which is the Free T-3 level. The free hormones are the active hormones and are a more accurate indication of the body's metabolism of the hormone. Correcting these deficiencies of thyroid hormone to optimal levels with natural thyroid results in optimal blood levels, improved metabolism and resolution of symptoms. Even though thyroid levels might vary, symptoms might not improve until optimal levels are reached, levels similar to those present in our younger years. This is a concept not understood by most physicians, yet wholeheartedly embraced by patients.

Just because laboratory values fall within a normal range does not mean the levels are optimal or the best they can be. We believe there is room for improvement. Normal levels for a test are an average for the population. People might be low or high and this determines normal levels. But normal for a middle-aged person is low in comparison to a younger person. So a middle-aged level is just as low as everyone else at that age, rather than optimal for a younger person. Physicians call it *normal for your age*. Patients call it feeling lousy for your age. By optimizing thyroid levels, symptoms of low thyroid can be alleviated and health benefits assured.

Thyroid hormone in higher doses has shown to be an effective treatment of chronic fatigue syndrome (CFS). It helps patients with severe bouts of low energy. Treatment with optimal amounts of thyroid is the best way to improve how one feels and functions.

As for those who are taking thyroid, most physicians prescribe only synthetic T-4 medications. Unfortunately, many symptoms persist despite normal thyroid levels. The problem is a lack of conversion of T-4 to the active hormone, T-3. This is commonly seen in patients taking synthetic T-4 thyroid hormone. Due to inadequate conversion of T-4 to T-3, patients frequently experience low thyroid symptoms even though their doctors report "normal" TSH and T-4 levels. By using a combination of both T-4 and T-3 in a natural form, optimal levels of T-3 are obtained. A recent study in the NEJM proved that the synthetic T-4 by itself did not eliminate symptoms. It was only the combination of T-4 and T-3 together that resulted in clinical improvement and resolution of symptoms. We find the synthetic thyroid (T-4) replacements are

not as effective as the natural replacements, which mimic the hormone normally produced by the body. Natural thyroid with T-3 is the only way to optimize all thyroid measurement levels. Patients who switch from the synthetic to the natural usually notice an improvement in their symptoms similar to the NEJM study. In spite of the evidence that natural thyroid is much more efficacious, physicians will often prescribe only the T-4 due to drug company influence and habit.

Thin hair, brittle nails, dry skin are all related to low thyroid. Many women who suffer from hair loss and thin hair are usually told by their physicians there is nothing that can be done. In spite of normal thyroid tests, women often can stop hair loss, increase hair growth and increase hair thickness by optimizing their thyroid levels. All hormones are beneficial; low levels are detrimental.