

## Treating Thyroid Disease Naturally

### Thyroid Disease and Dysfunction

Classic signs of thyroid hormone deficiency include fatigue, memory loss, cold hands and feet, muscle and joint pain, depression, high cholesterol, and constipation. Over the past 2 years, I have seen a large influx of patients that had been placed on thyroid hormones to treat the above symptoms. Many of these individuals responded well to thyroid hormone initially, but were no longer receiving as much benefit from its use. Furthermore, many of them continued to develop additional symptoms such as dry eyes, dry and bleeding nasal passages, and dry hair and skin. Most of them were also experiencing greater loss of hair.

#### What you should know about Thyroid Hormone Production:

Thyroid hormone production is under the influence of a chemical called thyroid stimulating hormone (TSH). TSH is made by the pituitary gland. When circulating levels of thyroxine (T-4) are low, TSH sends a message to your thyroid gland to start producing more T-4. The building blocks your body uses to make T-4 come from food constituents that we obtain from the diet (tyrosine – an amino acid from protein and certain minerals – iodine, zinc, etc). Once your body makes T-4, it must be activated by other nutrients (vitamins and minerals) into something known as T-3<sup>1</sup>. T-3 is the active form of thyroid hormone that works to increase the body's metabolism. However, certain nutrient deficiencies and stress can lead to a reduction in T-3 and instead the production of **Reverse T-3**. This form of T-3 is not as effective

and leads to symptoms of hypothyroidism. Unfortunately, Reverse T-3 cannot be distinguished from T-3 in traditional thyroid lab reports and this is a common oversight by many physicians. Once T-3 is made it will attach to the nucleus inside your cells and increase the body's metabolism appropriately. Once again, however, certain nutrient deficiencies can decrease the responsiveness of our body's cells to T-3, causing symptoms of hypothyroidism. For these reasons, lab reports commonly performed by physicians that look at TSH, T-4, and T-3, can be misleading. A simplified diagram of thyroid hormone production is listed below:

**TSH** → Stimulates the thyroid gland to make **T-4** → **T-4** Converts to either → **T-3** → or **Reverse T-3 (RT3)** → **RT3 is inactive.** → **Normal T-3 attaches to the cell nucleus** → **Once attachment of T-3 occurs** → **the body's metabolism increases.**

As if the above information were not complicated enough, there are also environmental factors that can also effect thyroid hormone production. Oral contraceptives and estrogen containing medications have been shown to reduce the conversion of T4 to T3<sup>2</sup>. Many herbicides and pesticides contain estrogen mimicking compounds known to effect thyroid hormone production. Soy foods and sodas can cause a reduction in thyroid hormone. Certain food allergies and selenium deficiency are linked to autoimmune thyroid dysfunction<sup>3,4</sup>. Heavy metal exposure through

air, water, dental fillings etc. have been linked to poor thyroid function.

Remember that thyroid disease is never just as simple as taking a medication whether it is bio-identical or not. Thyroid dysfunction has a cause. An astute physician will take an active roll in care and seek to perform a comprehensive exam and laboratory work up that will identify the cause. Keep in mind that your body has the ability to make its own thyroid hormone providing that all the essential nutrients necessary are present in the diet or through supplementation, providing that the environment is conducive to the expression of good health, and providing that the individual is properly educated in the care of his/her body. Many patients that come to me initially are taking some form of thyroid medication. Many were instructed that the medication was a life long necessity. And in many it is very common that the medication becomes unnecessary.

For more information on thyroid disease or to improve your health naturally you can visit [www.TownCenterWellness.com](http://www.TownCenterWellness.com) and sign up for our free natural health newsletter. Town Center Wellness at 281-240-2229.

<sup>1</sup> Moncayo R, et al. The role of selenium, vitamin C, and zinc in benign thyroid diseases and of selenium in malignant thyroid diseases: Low selenium levels are found in subacute and silent thyroiditis and in papillary and follicular carcinoma. *BMC Endocr Disord.* 2008 Jan 25;8:2.

<sup>2</sup> Pansini F, et al. Effect of the hormonal contraception on serum reverse triiodothyronine levels. *Gynecol Obstet Invest* 1987;23:133.

<sup>3</sup> Mazokopakis EE, et al. Effects of 12 months treatment with L-selenomethionine on serum anti-TPO Levels in Patients with Hashimoto's thyroiditis. *Thyroid* 2007 Jul;17(7):609-12.

<sup>4</sup> Negro R, et al. The influence of selenium supplementation on postpartum thyroid status in pregnant women with thyroid peroxidase autoantibodies. *J Clin Endocrinol Metab* 2007 Apr;92(4):1263-8. Epub 2007 Feb 6.

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