

How to Have a Healthy Thyroid

There are many causes of low thyroid function and also many illnesses you probably never realized were caused by low thyroid. To cope with this problematic gland, you need to understand how you can use non-medicinal as well as medicinal treatments to correct thyroid hormone function. These thyroid discussions could very well contain answers that you and loved ones have been seeking that can restore health and make you feel good again.

The Thyroid Hormone Has Unexpected Functions

The thyroid gland, surrounding your trachea in your lower neck, secretes thyroid hormone, which plays a crucial role in the body's functions.

First, thyroid hormone determines the metabolic rate of every cell. This includes bringing nutrients into each cell as well as removing waste products. It increases blood flow, heart rate, heat and energy production as well as metabolism. It speeds up thinking, intestinal motility, thirst and urination. It lowers blood pressure, decreases total and LDL ("bad") cholesterol and improves HDL ("good") cholesterol.

Thyroid hormone is known to eliminate cellular waste products such as old, defective enzymes. Even your immune defenses against various infections *and* cancerⁱ are improved by adequate thyroid hormone. Moreover, it enables other

endocrine glands to improve their function and become better able to produce their respective hormones, including cortisol and the sex hormones.

In contrast, thyroid deficiency causes a "myxedema" of the tissues. This is essentially mucous waste products outside cells. This leads to a multitude of organ system dysfunction. When a person is thyroid deficient, not one cell in the body functions optimally. Subsequently, there is a long list of symptoms and illnesses that can be caused by the hypothyroid state.

Hypothyroidism Classification: Underclassified

Discussion among medical doctors about thyroid disease can be very controversial, and their perspectives often depend on where they received their medical training as well as their willingness to learn more about the thyroid. Therefore, what I write here will probably upset your doctor; that is to be expected.

You see, there are two main "camps" regarding this topic. First, almost all doctors in the United States are taught by endocrinologists who are the "authorities" on hormone management. And no family physician wants to be ostracized from his medical staff or local colleagues for practicing outside of the so-called "standard of care."

Then, there are other doctors in the United States who have learned additional information

from European endocrinologists on how to manage thyroid disease. Their standard of care comes from clinical successes and not necessarily from their local hierarchy of professional colleagues. I fit in the latter group. What I've learned has proven to make far more clinical sense than what I was taught by mainstream U.S. medicine regarding thyroid hormone deficiency.

According to our U.S. medical system, degrees of hypothyroidism are classified in this manner:

- **Primary hypothyroidism (90 percent):** Takes place when the thyroid gland itself is responsible for underproduction of thyroid hormone. This occurs due to Hashimoto's (autoimmune) thyroiditis, radioactive iodine treatment for previous hyperthyroid state and iodine deficiency.
- **Secondary hypothyroidism (5 percent to 10 percent):** Occurs when the pituitary gland does not secrete enough TSH (thyroid stimulating hormone) for the thyroid gland to respond and secrete sufficient thyroid hormones T4 (thyroxine) and T3 (triiodothyronine). Examples include pituitary damage caused by tumor, surgery or radiation.
- **Tertiary hypothyroidism (less than 5 percent):** Occurs when the hypothalamus does not secrete enough TRH (thyrotropin-releasing hormone) for the pituitary gland to respond and secrete sufficient TSH.

Unfortunately, this classification system misses the vast majority of cases of hypothyroidism in which the thyroid hormone is measured in the normal range but the hormone is not getting into cells to be used, thus resulting in a form of subclinical hypothyroidism. In the perspective taken by European endocrinologists, nearly 50 percent of Americansⁱⁱ have hypothyroidism under this broader classification.

Why Orthodox Physicians Don't Detect Low Thyroid Hormone Function

Want to know why the diagnosis of low thyroid state is so commonly missed? Well, in part, there is such a huge diversity of related symptoms that only the very few physicians trained by the proper European physicians will recognize it. I didn't give

credence to these many symptoms until recently, when this knowledge came to me by way of a formerly retired U.S. cardiovascular surgeon, Dr. William Pooley.

Pooley came back into practice because he found great satisfaction getting patients well using only hormone restoration and nutrition. I will always thankfully remember his kindness: He openly shared his clinical experience with me and led me to the work of Dr. Broda Barnes and the generations of the Hertoghe family of endocrine physicians from Belgium.

The main impediment to orthodox medicine properly dealing with the thyroid is its over-reliance on thyroid blood tests. We all know that thyroid hormone can be accurately measured in your bloodstream. However, let me share a little secret with you that your doctor does not want to hear: *Just because your serum thyroid hormone measurements are in the normal range does not necessarily mean you have normally functioning thyroid hormone in the cells of your body organs and tissues.*

The thyroid tests (T4, T3 and TSH levels) are notoriously unreliable for detecting hypothyroidism on the subtle level that contributes to illness. They do not necessarily reflect what is going on with thyroid hormone in the cells of your body. This may explain why you can feel terrible because of low thyroid hormone (the metabolic hormone of the body), yet your blood tests and your doctor say you are fine.

Thyroid Truths

Let me share with you what the European endocrinologists say about the unreliability of thyroid blood tests:

1. The TSH test, which is touted to be the best test for thyroid deficiency, is not sensitive enough. TSH is elevated only in severe primary hypothyroidism and will not be elevated at all in secondary (pituitary) hypothyroidism.
2. Hormones vary tremendously during the day, and these blood tests are only a snapshot in time. Stress, in particular, increases many hormones.
3. The laboratory reference ranges are taken from a

basically sick population, replete with all sorts of undiagnosed and untreated endocrine deficiencies, poor nutrition and other health issues. They do not represent values for optimal health.

4. Hypothyroidism is associated with a reduced blood volume and constriction of blood vessels, which causes T3 and T4 levels to be higher than they otherwise would be.
5. There is reduced lymphatic drainage associated with hypothyroidism, resulting in the accumulation of waste products in the connective tissues, including, especially, mucopolysaccharides that present a barrier against thyroid hormone getting to the target cells.
6. There is decreased clearance of thyroid hormone from the blood associated with thyroid deficiency, making the blood values deceptively higher than they otherwise would be.
7. There is decreased conversion of T4 into T3 (the biologically active hormone) in hypothyroidism.
8. There is decreased uptake of thyroid hormone by the target cells of target tissues in thyroid deficiency; and since thyroid hormone works inside the cells, the blood levels of TSH, T3 and T4 should not be expected to reflect what is happening inside the cells.

When the Thyroid Falters

In the United States, hypothyroidism (low thyroid) is four times more prevalent in women than in men. According to the statistics, hypothyroidism is estimated to be present in only .3 percent and subclinical hypothyroidism is estimated to be in 4.3 percent of the general American population. That's because we define the diagnosis based only on serum tests.

“Subclinical hypothyroidism” is defined biochemically as a normal serum T4 (thyroxine) level when the thyroid-stimulating hormone (TSH) level is elevated. (That tells the thyroid gland to secrete more T4.)

However, low thyroid hormone function is estimated to affect about 50 percent of American adults, according to the clinical experience of

Broda Barnes, M.D., and the generations of the Hertoghe family of endocrine physicians from Belgium. There are good reasons for their estimation, as I discovered the more I studied their reports.

Widespread Problem

If what these European endocrinologists say is true, then what could be the cause for such a widespread problem? We know from orthodox medicine about these causes for overt hypothyroidism:

- Hashimoto's thyroiditis.
- Radioactive iodine/surgery.
- Iodine deficiency.
- Low pituitary or hypothalamus fxn (specialized protein).
- Postpartum thyroiditis.
- Congenital hypothyroidism.

However, there are many more causes that contribute to this high prevalence of low thyroid function. Consider these contributing causes:

- **Xenobiotics/xenoestrogens:** Environmental chemicals that mimic and disrupt thyroid hormone metabolism and function. They are in plastics, pesticides, cosmetics, prescription medications and more. Examples of problematic medications include synthetic estrogens,ⁱⁱⁱ lithium, interferon alpha, interleukin-2, amiodarone and thalidomide.
- **Sex steroid hormones^{iv} (estrogen, testosterone, progesterone, etc.):** Can interfere with thyroid hormone function.
- **Emotional stress:** Down-regulates the hypothalamic-pituitary-adrenal (HPA) hormone cascade, including thyroid hormone,^v inhibits conversion of T4 to T3 (most active) due to low levels of the stress hormone cortisol,^{vi} thyroid receptors are 50 percent less responsive to thyroid hormone supplementation in the presence of low cortisol.^{vii} A 1994 study of refugees from East Germany who experienced chronic stress among refugees from East Germany were found to have a very high rate of hypothyroidism.^{viii}
- **Adrenaline:** When produced due to critical illness, it lowers thyroid hormone.^{ix} Hyperglycemia and metabolic syndrome are much

more prevalent in hypothyroidism^{x, xi} and are thought to suppress thyroid hormone.

- **Heavy metals:** May lower thyroid function. Mercury is especially problematic.
- **Chronic gut inflammation:** Food allergies and intolerance to ingredients such as gluten (the protein found in wheat, barley, rye) and their derivatives add to the autoimmune condition of Hashimoto's thyroiditis. Gluten sensitivity affects an estimated 10 percent to 20 percent of the general population.
- **Suboptimal nutrition furthers thyroid dysfunction:** Iodine; vitamins A, B and D; omega-3 fatty acids; selenium; and zinc can easily be deficient in the diet.

Symptoms Caused by Low Thyroid Hormone Function

Low thyroid hormone has the potential to cause illness in any body tissue or organ. When your metabolic rate slows, the indications are often subtle. However, if a low thyroid condition remains, late findings will make themselves evident.

Indicators include:

- Feeling tired in daytime when sitting or at rest.
- Sensitivity to cold; hands and feet often cold.
- Constipation, abdominal bloating or colitis symptoms.
- Unwanted weight gain, morning puffy face/swollen eyelids, water retention.
- Cardiovascular effects: hypertension, hypercholesterolemia.
- Depressed mood or anxiety upon waking.
- Menstrual disorders (excessive bleeding or painful menses).
- Endometriosis, infertility, miscarriages.
- Dry or slow-growing hair or nails, excessive hair loss, acne, eczema, psoriasis.
- Hoarse voice, slowed speech.
- Stiff or painful joints, rheumatoid arthritis or osteoarthritis, carpal tunnel syndrome.
- Memory/concentration impairment; confusion, depression, dementia.

- Hypoglycemia.
- Frequent colds, sore throats, earaches or other infections.
- Nighttime muscle cramps, burning or tingling, bradycardia (slow rate).
- Heavy menstrual bleeding, infertility, increased risk of miscarriages, premature deliveries and stillbirths.

The Self-Test by Barnes

Do the Barnes basal body temperature test at home to get an idea of how your thyroid is doing. Use a thermometer to check your axillary (armpit) temperature while still lying in bed for 10 minutes first thing in the morning before you get out of bed. Check at least three morning readings. If your temperature is consistently below the range of 97.8 F to 98.2 F and you have several symptoms, then you can be 90 percent certain you have low thyroid hormone function. For menstruating women it is best to check on days two, three and four of the menstrual cycle.

The Thyroid Affects The Entire Body

A little known fact: Low thyroid affects other organ systems. And more than 99 percent of U.S. doctors don't even understand this situation. The thyroid influences cardiovascular disease, kidney disease, high cholesterol, high blood pressure and possibly even cancer.

The Connection Between Thyroid Deficiency And Heart Disease

European endocrinologist Dr. Broda Barnes and the generations of the Hertoghe family of endocrine physicians from Belgium studied thyroid deficiency under a different model than U.S. doctors. These European endocrinologists learned to identify thyroid deficiency without lab tests and with physiological replacement doses. Their patients also found improvement of many other chronic diseases.

They estimated that the leading cause of heart disease is actually low thyroid function.

Furthermore, they found that thyroid deficiency correlates with cancer, osteoporosis, arthritis, dementia and many of the autoimmune diseases. In other words, by treating these patients with natural thyroid hormone supplementation (not synthetic T4), they found that these other chronic conditions improved or resolved, too.

Dr. Barnes reported in 1976 that when his thyroid-deficient patients were properly treated with natural thyroid hormone, it resulted in a 94 percent protection rate against heart attacks.^{xiv} Moreover, his report was preceded by other reports linking coronary artery disease to thyroid deficiency. When I consider that the latest medical literature is increasingly confounded by studies done with conflicts of interest by funding sources, I feel more confidence in the earlier studies. Two studies done more than a hundred years ago are of particular interest here.

In 1895, a group of prominent Austrian physicians used sheep and goats to learn more about thyroid function. They removed the thyroid glands from these experimental animals because they already knew that sheep and goats are vegetarians and that they never get arterial disease. All of the animals subsequently developed severe diffuse arteriosclerosis, including coronary artery disease of the heart.^{xv} To make their findings more impressive, 15 years later other Austrian physicians removed thyroid glands from sheep and goats; but in this group they gave hormone replacement from thyroid extract. None of these animals developed arteriosclerosis.^{xvi}

I'm glad that the medical literature is finally beginning to understand the improvement in certain chronic illnesses and report on the underlying thyroid deficiency. For starters: Studies show that heart disease risk factors improve when low thyroid is corrected. In 2009, a report in *Clinical Endocrinology*^{xvii} demonstrated that, in 56 women patients with subclinical hypothyroidism who had higher blood pressure and higher levels of other cardiac disease risk factors than normal, saw their blood pressure, total cholesterol, triglycerides, LDL-cholesterol, lipoprotein(a) and

homocysteine levels returned into the range of normal subjects after supplementing with L-thyroxine for 18 months.

Kidney Disease and Thyroid Function

In the January 2013 issue of *Thyroid*,^{xviii} authors reported that chronic kidney disease (CKD) is greatly improved when the subclinical hypothyroid state is treated with thyroid supplementation. These researchers followed for two years 113 subjects with CKD who supplemented with L-thyroxine. The scientists measured their eGFR (estimated Glomerular Filtration Rate, the best measurement of kidney filtration and function). They found the improvement to be very significant. (The decline rate of eGFR improved from -4.31 to -1.08 mL/min/year/1.73 m².)

Cancer and Thyroid Function

Does correcting low thyroid function prevent or help treat cancer? I'll share a few nuggets of what I've learned this past year on the subject. One of my mentors is William Pooley, M.D., a formerly retired clinical professor of surgery (for 25 years) at New York Medical College and senior cardiothoracic attending surgeon at Westchester Medical Center in New York. Amazingly, he returned to practice because he has found so much success reversing diseases by using the hormone balancing/targeted nutrition techniques of Barnes and his endocrine colleagues.^{xix}

Pooley explains the relationship between thyroid hormone and cancer this way: "I remember when I used to operate to remove lung and other cancers. After the operation, like most surgeons, I would go to the pathology lab to look at the cancer under the microscope with the pathologist. Invariably, there would be almost no sign of any immune response in the area of the tumor; a few white blood cells, perhaps, but that would be about all. I used to wonder why the immune system didn't recognize the cancer as the enemy and fight it. Now, I understand why. An optimally functioning immune system is absolutely dependent upon adequate amounts of thyroid hormone and, I might add, cortisol as well. Thyroid-

deficient people always have depressed immune systems, which often results in a greater susceptibility to infections, as well as an increased mortality from them. But a healthy immune system is also necessary to recover from any non-infectious degenerative disease like cancer.”

In 2009, Pooley personally visited the renowned Belgian endocrine physician, Dr. Therese Hertoghe. Regarding her experience (and that of the Broda Barnes Foundation) of patients with cancer she told him: “Every patient with cancer is thyroid-deficient.” Barnes reported that the incidence of cancer in his practice of some 5,000 patients (all of whom were properly treated with natural thyroid hormone) was about half that of the general population, representing about a 50 percent reduction in cancer incidence.

Furthermore, Pooley shared with me the work of Dr. Samuel Schwartz, performed in 1977. Schwartz followed the incidence of cancer in 74 of his thyroid-deficient patients over a period of 15 to 46 years. He identified two groups of patients: Those who received at least two grains of natural desiccated thyroid hormone, and those who received no treatment. In the treated group of 31 patients, there was only one case of cancer for an incidence of 3.2 percent. In the untreated group of 43 patients, there were 32 cases of cancer for an incidence of 74.4 percent. This appears to represent a 95 percent protection from all cancers in the properly treated thyroid-deficient group.

According to the clinical experience of Pooley, even autoimmune diseases improve much better when physiological replacement doses of natural thyroid hormone and cortisol (when clinically indicated) are used. These conditions include Hashimoto’s thyroiditis, rheumatoid arthritis, systemic lupus erythematosus, ulcerative colitis and Crohn’s disease.

The Science of Thyroid-Blocking Foods

An increasing awareness and incidence of low thyroid function has triggered great interest in finding ways to treat this condition without prescription medications. So let’s consider foods and nutrient supplements that impair thyroid hormone

function and contrast those with those that help keep your thyroid hormone function optimal.

If you do an online search for foods that can block your thyroid function, you find a list of foods reported by bloggers and natural health authors, but you’ll not easily find supporting scientific references.

Therefore, I have spent some time digging deeper to uncover some of the original science that has given rise to the lists of healthy foods that contain “goitrogen” (substances known to interfere with thyroid function). This list includes, for example, plants in the genus *Brassica*, which includes the cruciferous vegetables broccoli, cabbage, cauliflower, Brussels sprouts, turnip, Chinese cabbage, kale, spinach, rapeseed, common radish, horseradish, rutabaga, wasabi, capers, mustard oil, papaya, watercress and other less-known plants. All these contain glucosinolates that are converted into isothiocyanates by the enzyme myrosinase. The isothiocyanates are also known for their anti-cancer properties.

In addition, foods that slow the thyroid include foods such as pine nuts, peanuts, flax seeds, millet, sweet potatoes and even fruits such as strawberries, peaches and pears.

The science on vegetables in the genus *Brassica* dates back to 1928 with the discovery that cabbage consumption caused thyroid enlargement in laboratory animals.^{xxi} Later, various articles on dietary goitrogens in diverse animal species were reported, but only a relatively small number of foods had anti-thyroid activity in man.^{xxii} Of these foods, rutabaga was consistently the most potent. Then, in 1949, it was reported that anti-thyroid compounds equal in potency to thiouracil (a thyroid-blocking medication used by patients for Grave’s hyperthyroid state) were isolated from rapeseed and the seeds of turnip, cabbage and kale. This was called “goitrin,” or L-5-vinyl-2-thiooxazolidone.^{xxiii} Then goitrogens were found in the edible portions of cabbage, kale and rapeseed.^{xxiv}

Original studies^{xxv} indicated that cooking would destroy the anti-thyroid properties in foods like rutabaga and turnip. Heat obliterated the

enzyme myrosinase, the chemical that liberated active goitrogens.

Later, however, this was called into question. In 1959, researchers^{xxvi} from the University of Oregon demonstrated that cooked crucifers could still produce goitrogenic effects even after myrosinase was inactivated.

More recently (1999), researchers also reported^{xxvii} that watercress can be cooked but still convert glucosinolates to isothiocyanates (goitrogens), although there were less of these anti-thyroid factors than in raw watercress. (Keep in mind that isothiocyanates are well-known for their anti-cancer effects.)

Researchers^{xxviii} in 1994 reported that glucosinolates (goitrogens) were the cause of lowered fertility in cows, sheep and pigs fed diets with rapeseed meal, presumably in large part from goitrogen's (anti-thyroid) effects on fertility.

Researchers in 1989 reported^{xxix} that diets predominately of millet (rich in C-glycosylflavones) produces goitrogenic and antithyroid effects similar to small doses of the anti-thyroid medication methimazole.

Soy Questions

While there may be health advantages to soy-related foods, soy isoflavones have been clearly shown to inhibit thyroid peroxidase (TPO), the important enzyme needed to produce thyroid hormone naturally in your body.^{xxx, xxxi} A look at the literature, however, shows that iodine deficiency greatly worsens this anti-thyroid effect, and iodine supplementation is protective.^{xxxii} Moreover, experimental animals were shown to easily compensate effectively; so even when eating soy, they actually had no real effective lowering of thyroid hormone.^{xxxiii}

Polyunsaturated fatty acids (PUFAs), which include the omega-3, -6 and -9 fatty acids from plants and fish, are widely recognized for their heart healthy properties. PUFAs also include corn, safflower, soybean, sunflower and cottonseed oils. Some people have made claims that all PUFAs can compete for protein binding sites and thereby block the effects of thyroid hormone.^{xxxiv} But, on

the contrary, the omega-3 PUFAs were reported in the *Journal of Nutritional Biochemistry* (2010) by Brazilian researchers to increase thyroid hormone action in the liver, an important mechanism in their lipid-lowering effect.^{xxxv}

Finally, the peer-reviewed science also shows us that “most flavonoids” (natural substances found in colorful fruits and vegetables) are potent inhibitors of thyroid peroxidase.^{xxxvi}

Frankly, I'd like to see a clinical trial that can demonstrate the interaction of eating the various goitrogenic foods while receiving adequate iodine. I think only then we can really know whether to forbid such foods.

Other Blockers of Thyroid Hormone

There are other foods to avoid if you're worried about your thyroid.

Coffee consumption within 30 minutes of thyroid hormone supplementation is well-known to block thyroid hormone intestinal absorption.^{xxxvii} Also, antacids, calcium and iron supplements taken within four hours of thyroid hormone can have a similar effect. Women who take more than 1,600 mg of calcium daily (this includes supplements plus foods) can drive down thyroid function.^{xxxviii}

There is a list of medications^{xxxix} (here) known to lower thyroid function, none of which I hope you are taking. Mercury exposure has been correlated with lower thyroid hormone levels.

Yet, another factor that suppresses thyroid hormone is stress. Stress triggers secretion of cortisol, known to inhibit thyroid hormone production by lowering thyrotropin,^{xlii} a.k.a. thyroid stimulating hormone (TSH).

Gluten Complications

This is an even bigger problem for the thyroid gland: gluten.

Clearly, the gluten protein found in wheat, barley, rye, spelt, kamut and triticale is not safe for people with celiac disease. Celiac disease affects about 1 percent of the American population, but its prevalence is two to five times higher in people with autoimmune thyroid disease.^{xliii}

The problem with gluten begins with agglutinin (the lectin protein in wheat). Agglutinin has been shown in lab tests to induce a condition like celiac disease, destroying the intestinal lining's tight cell junctions. That leads to leaky gut, spaces in the intestinal wall that allows problematic proteins and molecules to pass from the intestines into the bloodstream. Once in the blood, they trigger autoimmune inflammation^{xliv, xlv, xlvi} of various types, including the autoimmune condition Hashimoto's thyroiditis. The good news is that autoantibodies can disappear six months after you begin a gluten-free diet.^{xlvi, xlviii}

Foods and Nutrient Supplements to Boost Thyroid Function

Dietary ways to improve thyroid function include:

- Eat good animal protein from shellfish and fish, animal meats, fowl, cheeses, eggs and dairy; but consume pastured beef, eggs from range chickens, mercury-free fish and shellfish and raw dairy. There is also protein in fruits, vegetables, seeds and nuts, too.
- Eat fresh and steamed organic produce from leafy greens, green beans, colorful vegetables, fruits, seeds, nuts and non-gluten grains such as brown rice, oats (certified gluten-free), buckwheat, quinoa, cornmeal, popcorn, sorghum, teff and amaranth. Remember the science about the goitrogenic foods, and eat a balanced selection of produce.
- Eat healthy oils such as coconut oil, avocado, olive oil and omega-3 oils.

Herbs and Nutrients for the Thyroid

Herbs and nutrients can offer invaluable help for your thyroid. Many have been studied and found to enhance thyroid function.

First of all, you must have enough iodine in your diet or as a supplement in order for your thyroid gland to manufacture active thyroid. As of 2009, it was estimated that 2 billion individuals globally still had insufficient iodine intake, predominately in South Asia and Africa. At the same time, 50 percent of Europeans remained mildly iodine deficient.^{xlix}

While lack of iodine can be one cause of hypothyroidism, this cause is not as common in North America as other areas of the world. Moreover, too much iodine intake has shown to also be a problem for the thyroid gland, causing hypothyroidism and autoimmune thyroiditis.

Iodine is most plentiful in seaweed, seafood, dairy products, grain products, eggs and less so in fruits and vegetables.^l To find out if you are getting iodine in a healthy range for your individualized needs, have a healthcare provider paint a small (half-dollar size) area on your inner forearm skin with 2 percent iodine tincture. If it disappears in less than 12 hours, you're considered iodine deficient; 12-24 hours means you're mildly deficient. Alternatively, you could get a 24-hour urinary iodine level measured after a 50 mg iodine/iodine tablet oral load. If it is low, supplementation could be recommended at 150-200 mcg daily.^{li}

Nutrient supplements important for healthy thyroid function are:

- **Selenium:** 200 mcg daily; selenium deficiency^{lii} can exacerbate the effects of iodine deficiency and less so for vitamin A or iron deficiency; iron, zinc and copper deficiency can adversely affect thyroid hormone metabolism, too.^{liii}
- **Zinc:** An essential element for the basic biochemical reactions of the thyroid gland and hormones. In 2009, it was shown that low serum thyroid hormone levels improved after six months of zinc supplementation.^{liv}
- **Vitamin D-3:** Required by the thyroid gland. In a 2011 issue of *Thyroid*, low levels of vitamin D were associated with worsened thyroid function in patients with Hashimoto's thyroiditis.^{lv} Make sure you are getting sufficient vitamin D3 or 20 minutes of sunlight daily (enough sunlight for your skin to make adequate amounts).
- **Manganese:** Required by the thyroid gland to produce T4. 37 percent of Americans don't get enough manganese in their diets, negatively impacting the thyroid.
- **Molybdenum:** A trace mineral found in some foods such as legumes, grains and leafy greens. Supports the function of your nervous system and your kidneys. It's a cofactor involved in the

metabolism of your thyroid. Without it, your thyroid can't function properly.

Herbs that Enhance Thyroid Function

- **Sea Kelp (*Ascophyllum nodosum*):** Provides natural iodine. Also protects thyroid cells from inflammation.^{lvi} Decreases the risk of autoimmune thyroid disease.^{lvii}
- **Bladderwrack (*Fucus vesiculosus*):** Provides a natural iodine source. Also, it has anti-estrogen properties, thereby reducing the risk of thyroid gland inflammation by estrogen in both men and women.^{lviii, lix}
- **Hops (*Humulus lupulus*):** Contains xanthohumol, which enhances iodine uptake by the thyroid^{lx} and represses the activation of the pro-inflammatory molecule NF-kappaB,^{lxi, lxii} thereby decreasing pro-inflammatory cytokines TNF-alpha, IL-6.
- **Coleus (*Coleus forskohlii*):** Stimulates iodine uptake; boosts thyroglobulin, T4 & T3 production: enhances T3 and T4 secretion.^{lxiii}
- **Brahmi (*Bacopa monniera*):** Provides direct thyroid stimulation by increasing serum T4 by 41 percent but not T3 in lab experiments.^{lxiv}
- **Ashwagandha (*Withania somnifera*):** Raises serum levels of thyroid hormones by acting directly on the thyroid gland.^{lxv, lxvi} (Even raised thyroid hormone excessively in a woman who took too high a dose of ashwagandha.^{lxvii})
- **Guggul (*Commiphora mukul*):** Directly stimulates T3 production by influencing liver enzymes.^{lxviii}
- **Rosemary (*Rosmarinus officinalis*) and Sage (*Salvia officinalis*):** Contain carnosic acid (thought to increase thyroid hormone-specific receptors on the nuclei of target tissue cells.^{lxix, lxx})

Dealing with Thyroid Hormones

If you're concerned about which thyroid hormone to take, you should know that you'll do better with natural thyroid hormone replacement rather than synthetic forms. You may also need to know how to find a physician who will treat low thyroid hormone conditions and not just lab values.

Testimonial to Natural Thyroid Hormone

According to the Synthroid website,^{lxxi} “The active ingredient in Synthroid is called levothyroxine sodium. It is a synthetic hormone identical to thyroxine—the hormone that the thyroid gland naturally makes.” According to IMS statistics,^{lxxii} in April 2011, Synthroid was the fourth most prescribed medication in America, with 70.5 million prescriptions. That places it just behind hydrocodone (a narcotic), Zocor (a cholesterol-reducing statin), and Lisinopril (a blood pressure drug).

I'd like to reveal more about synthetic levothyroxine that maybe your doctor won't share with you.

Recently, a reader commented on her experience with Synthroid, which is not uncommon. She wrote: “A wonderful doctor that I went to for 43 years did not think the blood tests gave accurate results. She gave me 1/4 grain [15 mg] of natural thyroid a day, and I felt life trickling through my body. Over the period of a year, I was gradually raised to 1 full grain [60 mg], and I felt terrific. I was treated with natural hormone for 17 years. When natural hormone went off the market because Synthroid announced that their artificial thyroid was as effective, I could no longer get the natural thyroid. The synthetic did nothing for me. My blood pressure went up; I gained weight, developed allergies; and my muscles became less elastic, causing my muscles to cramp and joints to slide.”

Maybe Synthroid is not really identical to natural thyroid hormone, and many people are discovering this the hard way^{lxxiii} and reporting it.^{lxxiv}

As a matter of fact, if you look at the structural and functional properties of each substance you can see they are actually very different.

It was reported even as early as 1959 that by altering the basic structure of the thyroxine molecule, many important beneficial effects of the hormone are lost.^{lxxv}

A common mistake in managing hypothyroidism with Synthroid, which contains only synthetic T4, is that this will bring TSH levels into a more normal range, thus lowering the secretion of

T3, the more biologically active thyroid hormone. When the patient doesn't feel better despite a normal TSH serum level, the doctor will often then blame continuing symptoms on depression, fibromyalgia or a psychosomatic cause and may even prescribe an antidepressant. Instead, the physician should prescribe both natural T4 and T3 in combination as needed to eliminate signs and symptoms of hypothyroidism without producing any signs or symptoms of hormone excess.

The Solution

You want the natural desiccated thyroid hormones (a.k.a. thyroxine), with natural enzymes to enhance conversion of T4 to the more active T3 hormone peripherally. Common names are Armour, Naturethroid, Westthroid and compounded T4+T3. These come from pigs' thyroid glands.

The same reader who had such trouble with Synthroid as quoted above then asked: "Do you know where I could find a doctor who does not worship blood test results and who might find a form of thyroid that helps me once again?" Similarly, I believe many of you also want to find such a physician. Therefore, I've listed a few ideas for you on how to find a physician near you who will prescribe natural desiccated thyroid hormone.

You need to find a doctor who is willing to prescribe natural desiccated thyroid based on signs, symptoms and body temperature primarily, not on TSH levels, though free T3, free T4, thyroid antibodies and reverse T3 (rT3) should be measured.

If your doctor is open to learning this, it will be very helpful: There are many reasons why measurable thyroid levels may not reflect exactly how thyroid hormone is functioning in the peripheral body tissues and cells. Finally, if your doctor understands the role of cortisol and adrenal dysfunction/fatigue and how to guide you to treatment, it will allow your thyroid hormone to work properly in the peripheral tissues. Usually, they need to be treated together; and you'll find your proper dose of thyroid hormones will need to increase for many months until both are optimized and you are feeling great (without signs or symptoms of thyroid excess).

Here are some ideas to finding an appropriate healthcare provider:

- Go to your favorite local compounding pharmacy and ask the pharmacist which providers prescribe natural thyroid hormone to patients.
- Ask your friends if they know of natural medicine-oriented practitioners in your area, including those who use saliva hormone testing. (They will likely understand adrenal dysfunction.)
- Email the Broda Barnes foundation to ask if there are doctors trained or registered with the organization in your area: info@BrodaBarnes.org.
- Seek out a naturopathic doctor (ND) near you who may be able to prescribe natural thyroid hormone or who may know who can locally.

Many Aspects

The many aspects of low thyroid hormone I've discussed have not become part of mainstream medicine. Yet, millions of people with classic symptoms and signs of this illness still go undiagnosed, untreated or even mistreated. Correcting the low thyroid hormone condition has a huge bearing on all other tissues of the body. It produces far-reaching beneficial effects on health, including the reversal of many common chronic illnesses.

This is a relatively easy condition to diagnose and treat. Initial treatment should entail using diet, nutrient supplements and thyroid-enhancing herbs. Then, physiological replacement doses of natural thyroid hormone can ensure reversal of signs and symptoms of low thyroid hormone.

Sources

ⁱ Schwartz, Samuel: "The Relationship of Thyroid Deficiency to Cancer: A 50-year Retrospective Study," *Journal of IAPM*, Vol. VI, No. 1, 1977. As reported by Dr. Schwartz in 1977, they studied the incidence of cancer in 74 thyroid deficient patients over a period of 15 to 46 years. There were two groups of patients: (1) a treated group who received at least 2-3 grains of natural desiccated thyroid hormone and (2) an untreated group who received no treatment at all or less than one grain of natural desiccated thyroid hormone (a clearly insufficient dose for all but small children). In the treated group of 31 patients, there was only one case of cancer for an incidence of 3.2%. In the untreated group of 43 patients, there were 32 cases of cancer for an incidence of 74.4%. This represents about a 95% protection from all cancers in the properly treated thyroid deficient group.

ⁱⁱ Barnes, Broda O: *Solved: The Riddle of Heart Attacks*, Robinson Press, Fort Collins, CO, 1976.

ⁱⁱⁱ Arafah BM. Increased need for thyroxine in women with hypothyroidism during estrogen therapy. *N Engl J Med*. 2001 Jun 7;344(23):1743-9.

^{iv} Tahboub R, Arafah BM. Sex steroids and the thyroid. *Best Pract Res Clin Endocrinol Metab*. 2009 Dec;23(6):769-80.

- v Sapolsky, R. M., Krey, L. C., McEwen, B. S. (1986). "The Neuroendocrinology of Stress and Aging: The Glucocorticoid Cascade Hypothesis." *Endocrine Reviews*. 7 (3): 284–301.
- vi Ongphiphadhanakul, B, Fang, SL, Tang, KT, Patwardhan, NA, Braverman, LE (1994). "Tumor necrosis factor-alpha decreases thyrotropin-induced 5'-deiodinase activity in FRTL-5 thyroid cells." *European Journal of Endocrinology*. 130 (5): 502–7.
- vii James L. Wilson, N.D., D.C. Ph.D. Lecture in fellowship training Module I of the American Academy of Anti-aging Medicine (A4M).
- viii Bauer, M, Priebe, S, Kürten, I, Gräf, KJ, Baumgartner, A (1994). "Psychological and endocrine abnormalities in refugees from East Germany: Part I. Prolonged stress, psychopathology, and hypothalamic-pituitary-thyroid axis activity." *Psychiatry Research*, 51 (1): 61–73.
- ix Dünser MW, Hasibeder WR. Sympathetic overstimulation during critical illness: adverse effects of adrenergic stress. *J Intensive Care Med*. 2009 Sep-Oct;24(5):293-316.
- x Kota SK, Meher LK, Krishna S, Modi K. Hypothyroidism in metabolic syndrome. *Indian J Endocrinol Metab*. 2012 Dec;16(Suppl 2):S332-3.
- xi Pacifico L, Anania C, Ferraro F, Andreoli GM, Chiesa C. Thyroid function in childhood obesity and metabolic comorbidity. *Clin Chim Acta*. 2012 Feb 18;413(3-4):396-405.
- xii Chen A, Kim SS, Chung E, Dietrich KN. Thyroid hormones in relation to lead, mercury, and cadmium exposure in the National Health and Nutrition Examination Survey, 2007-2008. *Environ Health Perspect*. 2013 Feb;121(2):181-6.
- xiii Yorita Christensen KL. Metals in blood and urine, and thyroid function among adults in the United States 2007-2008. *Int J Hyg Environ Health*. 2012 Oct 5. pii: S1438-4639(12)00108-3.
- xiv Barnes, Broda O: *Solved: The Riddle of Heart Attacks*, Robinson Press, Fort Collins, CO, 1976.
- xv von Eiselsberg, AF: "On the Vegetative Disturbances in Growth of Animals after Early Thyroidectomy," *Archives Klinik Chirurgie*, 49:207, 1895.
- xvi Pick, EP, Pineless, F: "Research on the Physiologically Active Substance of the Thyroid," *Exp Path Ther*. 7:518, 1910.
- xvii Adrees M, Gibney J, El-Saeity N, Boran G. Effects of 18 months of L-T4 replacement in women with subclinical hypothyroidism. *Clin Endocrinol (Oxf)*. 2009 Aug;71(2):298-303.
- xviii Shin DH, Lee MJ, Oh HJ, et al. Thyroid hormone replacement therapy attenuates the decline of renal function in chronic kidney disease patients with subclinical hypothyroidism. *Thyroid*. 2013 Jan 2. [Epub ahead of print]
- xix Personal communication with Dr. Pooley, 2012.
- xx <http://en.wikipedia.org/wiki/Goitrogen>
- xxi Chesney AM, Clawson TA, Webster B. Endemic goitre in rabbits. I. Incidence and characteristics. *Bull. Johns Hopk. Hosp*. 1928; 43:261.
- xxii Greer MA, Astwood E B. The antithyroid effect of certain foods in man as determined with radioactive iodine. *Endocrinology*. 1948, 43, 105.
- xxiii EB Astwood, Monte A Greer, Martin G. Ettlenger. I-5-Vinyl-2-Thioxazolidone an antithyroid compound from yellow turnip and from brassica seeds. *J. Biol. Chem*. 1949, 181:121-130. Found online at: <http://www.jbc.org/content/181/1/121.full.pdf>
- xxiv Altamura MR, Long, L, Jr., Hasselstrom T. Goitrin from fresh cabbage. *J. Biol. Chem*. 1959, 234, 1847.
- xxv Greer MA, Ettlenger MG, Astwood, EB Dietary factors in the pathogenesis of simple goiter. *J. Clin. Endocr*. 1949, 9, 1069.
- xxvi Greer MA, Deeney JM, Antithyroid activity elicited by the ingestion of pure goitrin, a naturally occurring thioglycoside of the turnip family. *J Clin Invest*. 1959 September; 38(9): 1465–1474. Find online at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC293276/>
- xxvii Getahun SM, Chung FL. Conversion of glucosinolates to isothiocyanates in humans after ingestion of cooked watercress. *Cancer Epidemiol Biomarkers Prev*. 1999 May;8(5):447-51.
- xxviii Mawson R, Heaney, RK, Zdunczyk Z and Kozłowska H (1994), Rapeseed meal-glucosinolates and their antinutritional effects Part 5. Animal reproduction. *Nahrung*, 38: 588–598. Reproduced in *Molecular Nutrition and Food Research* online 19 OCT 2006 at: <http://onlinelibrary.wiley.com/doi/10.1002/food.19940380607/abstract#fn1>
- xxix Gaitan E, Lindsay RH, et al. Antithyroid and Goitrogenic Effects of Millet: Role of C-Glycosylflavones. *The Journal of Clinical Endocrinology & Metabolism*. April 1, 1989 vol. 68 no. 4 707-714.
- xxx Doerge DR, Chang HC. Inactivation of thyroid peroxidase by soy isoflavones, in vitro and in vivo. *J Chromatogr B Analyt Technol Biomed Life Sci*. 2002 Sep 25;777(1-2):269-79.
- xxxi Divi RL, Chang HC, Doerge DR. Anti-thyroid isoflavones from soybean: isolation, characterization, and mechanisms of action. *Biochem Pharmacol*. 1997 Nov 15;54(10):1087-96.
- xxxii Doerge DR, Sheehan DM. Goitrogenic and estrogenic activity of soy isoflavones. *Environ Health Perspect*. 2002 Jun;110 Suppl 3:349-53.
- xxxiii Chang HC, Doerge DR. Dietary genistein inactivates rat thyroid peroxidase in vivo without an apparent hypothyroid effect. *Toxicol Appl Pharmacol*. 2000 Nov 1;168(3):244-52.
- xxxiv Tim Brimeyer's Hypothyroid Revolution found online at: www.hypothyroidismrevolution.com. Also, Ray Peat, PhD makes this claim found online at: <http://raypeat.com/articles/articles/fats-functions-malfuctions.shtml>
- xxxv Souza LL, Nunes MO, Paula GS, Cordeiro A, Penha-Pinto V, Neto JF, Oliveira KJ, do Carmo Md, Pazos-Moura CC. Effects of dietary fish oil on thyroid hormone signaling in the liver. *J Nutr Biochem*. 2010 Oct;21(10):935-40.
- xxxvi Divi RL, Doerge DR. Inhibition of thyroid peroxidase by dietary flavonoids. *Chem Res Toxicol*. 1996 Jan-Feb;9(1):16-23.
- xxxvii Benvenista S, Bartolone L, Pappalardo MA, Russo A, Lapa D, Giorgianni G, Saraceno G, Trimarchi F. Altered intestinal absorption of L-thyroxine caused by coffee. *Thyroid*. 2008 Mar;18(3):293-301.
- xxxviii Presented at the American Academy of Anti-aging Medicine Module I Fellowship training (personal notes).
- xxxix <http://en.wikipedia.org/wiki/Goitrogen>
- xl Yorita Christensen KL. Metals in blood and urine, and thyroid function among adults in the United States 2007-2008. *Int J Hyg Environ Health*. 2012 Oct 5. pii: S1438-4639(12)00108-3.
- xli Chen A, Kim SS, Chung E, Dietrich KN. Thyroid hormones in relation to lead, mercury, and cadmium exposure in the National Health and Nutrition Examination Survey, 2007-2008. *Environ Health Perspect*. 2013 Feb;121(2):181-6.
- xlii Re RN, Kourides IA, Ridgway EC, Weintraub BD, Maloof F. The effect of glucocorticoid administration on human pituitary secretion of thyrotropin and prolactin. *J Clin Endocrinol Metab*. 1976 Aug;43(2):338-46.
- xliiii Ch'ng CL, Jones MK, Kingham JG. Celiac disease and autoimmune thyroid disease. *Clin Med Res*. 2007 Oct;5(3):184-92.
- xliiii Fasano A (2001) Pathological and therapeutic implications of macromolecule passage through the tight junction. In *Tight Junctions*. CRC Press, Inc, Boca Raton, pp 697–722.
- xliiii Yu QH, Yang Q (2009) Diversity of tight junctions (TJs) between gastrointestinal epithelial cells and their function in maintaining the mucosal barrier. *Cell Biol Int* 33:78–82.
- xliiii Fasano A (2001) Intestinal zonulin: open sesame! *Gut* 49:159–162.
- xliiii Ventura A, Neri E, Ughi C, Leopaldi A, Città A, Not T. Gluten-dependent diabetes-related and thyroid-related autoantibodies in patients with celiac disease. *J Pediatr*. 2000 Aug;137(2):263-5.
- xliiii Mainardi E, Montanelli A, Dotti M, Nano R, Moscato G. Thyroid-related autoantibodies and celiac disease: a role for a gluten-free diet? *J Clin Gastroenterol*. 2002 Sep;35(3):245-8.
- xliiii Zimmermann MB. Iodine deficiency. *Endocr Rev*. 2009 Jun;30(4):376-408.
- l NIH office of Dietary Supplements Fact Sheet at: <http://ods.od.nih.gov/factsheets/Iodine-HealthProfessional/>
- li NIH office of Dietary Supplements Fact Sheet at: <http://ods.od.nih.gov/factsheets/Iodine-HealthProfessional/>
- lii Triggiani V, Tafaro E, Giagulli VA, Sabbà C, Resta F, Licchelli B, Guastamacchia E. Role of iodine, selenium and other micronutrients in thyroid function and disorders. *Endocr Metab Immune Disord Drug Targets*. 2009 Sep;9(3):277-94.
- liii Arthur JR, Beckett GJ. Thyroid function. *Br Med Bull*. 1999;55(3):658-68.
- liiii Kandhro GA, Kazi TG, Afridi HI, Kazi N, Baig JA, Arain MB, Sirajuddin, Shah AQ, Sarfraz RA, Jamali MK, Syed N. Effect of zinc supplementation on the zinc level in serum and urine and their relation to thyroid hormone profile in male and female goitrous patients. *Clin Nutr*. 2009 Apr;28(2):162-8.

^{lv} Tamer G, Arik S, Tamer I, Coksert D. Relative vitamin D insufficiency in Hashimoto's thyroiditis. *Thyroid*. 2011 Aug;21(8):891-6.

^{lvi} Saker KE, Fike JH, Veit H, Ward DL. Brown seaweed- (Tasco) treated conserved forage enhances antioxidant status and immune function in heat-stressed wether lambs. *J Anim Physiol Anim Nutr (Berl)*. 2004 Apr;88(3-4):122-30.

^{lvii} Duthoit C, Estienne V, Giraud A, Durand-Gorde JM, Rasmussen AK, Feldt-Rasmussen U, Carayon P, Ruf J. Hydrogen peroxide-induced production of a 40 kDa immunoreactive thyroglobulin fragment in human thyroid cells: the onset of thyroid autoimmunity? *Biochem J*. 2001 Dec 15;360(Pt 3):557-62.

^{lviii} Skibola CF, Curry JD, VandeVoort C, Conley A, Smith MT. Brown kelp modulates endocrine hormones in female sprague-dawley rats and in human luteinized granulosa cells. *J Nutr*. 2005 Feb;135(2):296-300.

^{lix} Skibola CF. The effect of *Fucus vesiculosus*, an edible brown seaweed, upon menstrual cycle length and hormonal status in three pre-menopausal women: a case report. *BMC Complement Altern Med*. 2004 Aug 4;4:10.

^{lx} Radovic B, Schmutzler C, Kohrle J. Xanthohumol stimulates iodine uptake in rat thyroid-derived FRTL-5 cells. *Mol Nutr Food Res*. 2005 Sep;49(9):832-6.

^{lxi} Albini A, Dell'Eva R, Vene R, Ferrari N, Buhler DR, Noonan DM, Fassina G. Mechanisms of the antiangiogenic activity by the hop flavonoid xanthohumol: NF-kappaB and Akt as targets. *FASEB J*. 2006 Mar;20(3):527-9.

^{lxii} Colgate EC, Miranda CL, Stevens JF, Bray TM, Ho E. Xanthohumol, a prenyl-flavonoid derived from hops induces apoptosis and inhibits NF-kappaB activation in prostate epithelial cells. *Cancer Lett*. 2006 Mar 22.

^{lxiii} Laurberg P. Forskolin stimulation of thyroid secretion of T4 and T3. *FEBS Lett*. 1984 May 21;170(2):273-6.

^{lxiv} Kar A, Panda S, Bharti S. Relative efficacy of three medicinal plant extracts in the alteration of thyroid hormone concentrations in male mice. *J Ethnopharmacol*. 2002 Jul;81(2):281-5.

^{lxv} Panda S, Kar A. Changes in thyroid hormone concentrations after administration of ashwagandha root extract to adult male mice. *J Pharm Pharmacol*. 1998 Sep;50(9):1065-8.

^{lxvi} Panda S, Kar A. *Withania somnifera* and *Bauhinia purpurea* in the regulation of circulating thyroid hormone concentrations in female mice. *J Ethnopharmacol*. 1999 Nov 1;67(2):233-9.

^{lxvii} van der Hooft CS, Hoekstra A, Winter A, de Smet PA, Stricker BH. Thyrotoxicosis following the use of ashwagandha. *Ned Tijdschr Geneesk*. 2005 Nov 19;149(47):2637-8.

^{lxviii} Panda S, Kar A. Gugulu (*Commiphora mukul*) induces triiodothyronine production: possible involvement of lipid peroxidation. *Life Sci*. 1999;65(12):PL137-41.

^{lxix} Steiner M, Priel I, Giat J, Levy J, Sharoni Y, Danilenko M. Carnosic acid inhibits proliferation and augments differentiation of human leukemic cells induced by 1,25-dihydroxyvitamin D3 and retinoic acid. *Nutr Cancer*. 2001;41(1-2):135-44.

^{lxx} Danilenko M, Wang X, Studzinski GP. Carnosic acid and promotion of monocytic differentiation of HL60-G cells initiated by other agents. *J Natl Cancer Inst*. 2001 Aug 15;93(16):1224-33.

^{lxxi} <http://www.synthroid.com/WhatsSynthroid/Default.aspx>

^{lxxii} http://timewellness.files.wordpress.com/2011/04/ihii_useofmed_report.pdf

^{lxxiii} See blogs from "Doctor's Hall of Shame" at Stop the Thyroid Madness website found at: <http://www.stopthethyroidmadness.com/give-me-a-break/>

^{lxxiv} <http://www.stopthethyroidmadness.com/t4-only-meds-dont-work/>

^{lxxv} *American Journal of the Medical Sciences*. Sept 1959, vol 238, issue 3: p261-73. Online at: http://journals.lww.com/lamjmedscil/Citation/1959/09000/A_Dissociation_of_Thyroid_Hormonal_Effects_By.1.aspx



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