

What You Need to Know About Your Thyroid Health



STORY AT-A-GLANCE

- The thyroid gland is a butterfly-shaped gland found inside your neck, right under your larynx or voice box.
- Your thyroid is responsible for producing the master metabolism hormones that control every function in your body.
- Hypothyroidism occurs when your thyroid produces too little thyroid hormone, a condition that is often linked to iodine deficiency.

Your thyroid, one of the largest endocrine glands, greatly influences almost every cell in your body. Aside from regulating your metabolism and weight by controlling the fat-burning process, thyroid hormones are also required for the growth and development in children and in nearly every physiological process in your body.

When your thyroid levels are out of balance, so are you. Too much or too little hormone secretion in this gland can spell trouble for your overall health and well-being.

Mounting research shows that 10 to 40 percent of people living in the United States have suboptimal thyroid function.¹ Poor thyroid function has been linked to serious health conditions like fibromyalgia, irritable bowel syndrome, acne, eczema, gum disease, infertility, and [autoimmune diseases](#), which is why it's imperative that you to learn how your thyroid works and what can cause it to go off kilter.

The Thyroid Gland: Understanding How It Works

The thyroid gland is a butterfly-shaped gland found inside your neck, right under your larynx or voice box. A two-inch long, brownish red, highly vascular gland, it has two lobes located on each side of the windpipe that are both connected by a tissue called the isthmus. A normal thyroid gland weighs somewhere between 20 and 60 grams.

Your thyroid is responsible for producing the master metabolism hormones that control every function in your body. It produces three types of hormones:

- Triiodothyronine (T3)
- Thyroxine (T4)
- Diiodothyronine (T2)

Hormones secreted by your thyroid interact with all your other hormones, including insulin, cortisol, and sex hormones like estrogen, progesterone, and testosterone. The fact that these hormones are all tied together and are in constant communication explains why a less-than-optimal thyroid status is associated with so many widespread symptoms and diseases.

Almost 90 percent of the hormone produced by your thyroid is in the form of T4, the inactive form. Your liver then converts the T4 into T3, the active form, with the help of an enzyme. T2, however, is currently the least-understood component of thyroid function and the subject of a number of ongoing studies.

If everything is working properly, you will make what you need and have the correct amounts of T3 and T4, which control the metabolism of every cell in your body. If your T3 is inadequate, either by scarce production or not converting properly from T4, your whole system suffers. T3 is critically important because it tells the nucleus of your

cells to send messages to your DNA to rev up your metabolism by burning fat. This is how T3 lowers cholesterol levels, regrows hair, and helps keep you lean.

Your T3 levels can be disrupted by nutritional imbalances, toxins, allergens, infections, and stress, and this lead to a series of complications, including thyroid cancer, hypothyroidism, and hyperthyroidism, which today are three of the most prevalent thyroid-related diseases. Now, let's discuss and delve deeper into these thyroid problems.

Hypothyroidism: The Sluggish Thyroid Syndrome

[Hypothyroidism](#) occurs when your thyroid produces too little thyroid hormone, a condition that is often linked to iodine deficiency.

Dr. David Brownstein, a board-certified holistic practitioner who has been working with [iodine](#) for the last two decades, claims that over 95 percent of the patients in his clinic are iodine-deficient.

In addition, 10 percent of the general population in the United States, and 20 percent of women over age 60, have subclinical hypothyroidism,² a condition where you have no obvious symptoms and only slightly abnormal lab tests.

However, only a marginal percentage of these people are being treated. The reason behind this is the misinterpretation and misunderstanding of lab tests, particularly TSH (thyroid stimulating hormone). Most physicians believe that if your TSH value is within the "normal" range, your thyroid is fine. But as I always say, the devil is in the details. More and more physicians are now discovering that the TSH value is grossly unreliable for diagnosing hypothyroidism.

How to Know If You Are Hypothyroid

Identifying hypothyroidism and its cause is tricky business. Many of the [symptoms of hypothyroidism](#) are vague and overlap with other disorders. Physicians often miss a thyroid problem since they rely on just a few traditional tests, leaving other clues undetected.

The most sensitive way to find out is to listen to your body. People with a sluggish thyroid usually experience:

- **Lethargy** — Fatigue and lack of energy are typical signs of thyroid dysfunction. Depression has also been linked to the condition. If you've been diagnosed with depression, make it a point that your physician checks your thyroid levels.

It's essential to note that not all tiredness or lack of energy can be blamed on a dysfunctional thyroid gland. Thyroid-related fatigue begins to appear when you cannot sustain energy long enough, especially when compared to a past level of fitness or ability. If your thyroid foundation is weak, sustaining energy output is going to be a challenge. You will notice you just don't seem to have the energy to do the things like you used to.

Some of the obvious signs of thyroid fatigue include:

- Feeling like you don't have the energy to exercise, and typically not exercising on a consistent basis
- A heavy or tired head, especially in the afternoon; your head is a very sensitive indicator of thyroid hormone status
- Falling asleep as soon as you sit down when you don't have anything to do

•**Weight gain** — Easy weight gain or difficulty losing weight, despite an aggressive exercise program and watchful eating, is another indicator.

•**Rough and scaly skin and/or dry, coarse, and tangled hair** — If you have perpetually dry skin that doesn't respond well to moisturizing lotions or creams, consider hypothyroidism as a factor.

•**Hair loss** — Women especially would want to pay attention to their thyroid when unexplained hair loss occurs. Fortunately, if your hair loss is due to low thyroid function, your hair will come back quickly with proper thyroid treatment.

•**Sensitivity to cold** — Feeling cold all the time is also a sign of low thyroid function. Hypothyroid people are slow to warm up, even in a sauna, and don't sweat with mild exercise.

•**Low basal temperature** — Another telltale sign of hypothyroidism is a low basal body temperature (BBT), less than 97.6 degrees Fahrenheit averaged over a minimum of three days. It is best to get a BBT thermometer to assess this.

Any of these symptoms can be suggestive of an underactive thyroid. The more of these symptoms you have, the higher the likelihood that you have hypothyroidism. Furthermore, if you have someone in your family with any of these conditions, your risks of thyroid problems become higher:

- Goiter
- [Diabetes](#)
- Multiple sclerosis (MS)
- Prematurely gray hair
- Autoimmune diseases, (i.e. rheumatoid arthritis, [lupus](#), [sarcoidosis](#), [Sjogren's](#))
- Elevated cholesterol levels

- Left-handedness
- [Crohn's disease](#) or [ulcerative colitis](#)
- High or low thyroid function

The more vigilant you are in assessing your own symptoms and risk factors and presenting the complete picture to your physician, the easier it will be for you to get the proper treatment.

How About If You Have a Hyperactive Thyroid?



Thyroxine or T4 is a hormone made by the thyroid gland carried throughout your body in your bloodstream. Many of your cells and tissues depend on thyroxine to work properly.

An overactive thyroid secretes too much T4, causing some of your body functions to accelerate. Physicians may use the term "thyrotoxicosis" instead of "hyperthyroidism." This condition is more common in women – about eight in 100 women and one 1 in 100 men develop hyperthyroidism at some point in their lives. It can occur at any age.³

Patient.co.uk lists several symptoms of hyperthyroidism:

- Feeling restless, nervous, emotional, irritable, sleeping poorly, and as if you're always on the go
- Difficulty concentrating

- Frequent bowel movements
- Irregular menstrual periods in women
- Weight loss (or weight gain, in rare cases)
- Rapid, forceful, or irregular heartbeat
- Lack of menstrual periods in women
- Protruding eyes or exophthalmos

Some of these symptoms may be unnoticeable at first and then become worse as your thyroxine levels start to shoot up even higher.

Untreated hyperthyroidism can lead to heart problems like atrial fibrillation, cardiomyopathy, angina, and heart failure. Hyperthyroid women can potentially have difficulty giving birth.

Diagnosing a Thyroid Issue

There are a few ways to diagnose an underactive or hyperactive thyroid, but I prefer using the following laboratory tests if you want to get the real score of your thyroid health:

•**TSH Test** — The higher your level of TSH, the higher the likelihood that you have hypothyroidism. The ideal level for TSH is between 1 and 1.5 milli-international units per liter.

•**Free T4 And Free T3** — The normal level of free T4 is between 0.9 and 1.8 nanograms per deciliter. T3 should be between 240 and 450 picograms per deciliter.

•**Thyroid Antibody Testing** — This includes thyroid peroxidase antibodies and anti-thyroglobulin antibodies. This measure helps determine if your body is attacking your thyroid, overreacting to its

own tissues (i.e., autoimmune reactions). Physicians nearly always leave this test out.

- Basal Body Temperature** — Although there are a few different protocols, the most commonly used is the Broda Barnes system,⁴ which is a measure of your basal body temperature at rest.

- TRH Stimulation Test** — For more difficult cases, TRH can be measured using the TRH stimulation test. TRH helps identify hypothyroidism that's caused by inadequacy of the pituitary gland.

Other tests that might be indicated for more complex cases are a thyroid scan, fine-needle aspiration, and thyroid ultrasound. But these are specialized tests that your physician will use only in a small number of cases, or in special situations.

Even if all your lab tests turn out normal, you still likely have subclinical hypothyroidism if you have multiple thyroid symptoms.

Are You At Risk of Thyroid Cancer?



According to the National Cancer Institute at the National Institutes of Health, there is an estimated 60,220 new cases and 1,850 deaths from thyroid cancer in the United States alone.⁵ Thyroid cancer is classified into four different types: papillary thyroid cancer, follicular

thyroid cancer, medullary thyroid cancer, and anaplastic thyroid cancer.

Just like with any type of [cancer](#), early intervention heightens your chances of remission and recovery. This is why you should always be on the lookout for possible clues. Below is a list of potential warning signs of thyroid cancer from Roswell Park Cancer Institute:⁶

- Unusual lumps, nodules, bumps or swelling in the neck
- Pain in the front of the neck or throat
- Hoarseness or other voice changes that do not go away
- A constant cough that is not due to a cold

The Cancer Treatment Centers of America explains that there are certain components that may heighten an individual's overall risk for this disease. These include:

•**GENDER** — Females are three times more vulnerable to developing thyroid cancer than males. Papillary thyroid cancer is typically found in women of childbearing age.

•**AGE** — Two-thirds of thyroid cancer cases occur between ages 20 and 55.

•**FAMILY HISTORY** — Familial medullary thyroid cancer, which is a rare type of thyroid cancer, is caused by an inherited mutation in the RET proto-oncogene. If you have inherited this gene mutation from your parents, your likelihood of contracting this disease is twice higher than other people. Having someone in the family with goiter, thyroid cancer, or other thyroid-related diseases.

•**IODINE DEFICIENCY** — Iodine is an essential ingredient for the secretion of thyroid hormones. An insufficiency in this nutrient can impair the thyroid significantly.

•**ENVIRONMENT** — Individuals who are exposed excessively or repeatedly to [radiation](#), including routine diagnostic X-rays (i.e. chest

or dental X-ray) and other radioactive materials are, especially during childhood, can potentially incur thyroid cancer and/or other forms of cancer.

4 Things That Wreak Havoc on Your Thyroid

These are some key contributing factors that can ruin your healthy thyroid function:

1. **[Gluten](#)** — Gluten, along with other food sensitivities, is a notorious culprit of thyroid dysfunction, as they cause inflammation. Gluten causes autoimmune responses in many people and can be responsible for Hashimoto's thyroiditis, a common autoimmune thyroid condition. Approximately 30 percent of the people with Hashimoto's thyroiditis have an autoimmune reaction to gluten, and it usually goes unrecognized.

Gluten sensitivity can cause your gastrointestinal system to malfunction, so foods you eat aren't completely digested, often leading to a leaky gut syndrome. These food particles can then be absorbed into your bloodstream, where your body misidentifies them as antigens – substances that shouldn't be there – and then produces antibodies against them.

These antigens are similar to the molecules in your thyroid gland. Because of this, your body accidentally attacks your thyroid. This is known as an autoimmune reaction, in which your body actually attacks itself. Testing can be done for gluten and other food sensitivities, which involves measuring your IgG and IgA antibodies.

Chris Kresser, an integrative medicine practitioner, recommends **[The Gluten-Free Challenge](#)**. This involves completely removing gluten from your diet for at least 30 days, and then adding it back right after.

"If symptoms improve during the elimination period, and return when gluten is reintroduced, a diagnosis of non-celiac gluten sensitivity (NCGS) can be made," Kresser explains.

2. Soy — Believe it or not, soy is not the wholesome health food the agricultural and food companies have led you to believe.

Virtually thousands of scientific studies now link soy foods to malnutrition, digestive stress, immune system weakness, cognitive decline, reproductive disorders, infertility, and a host of other problems, on top of the damage it causes your thyroid. Soy phytoestrogens are potent anti-thyroid agents that cause hypothyroidism and may cause thyroid cancer. In infants, consumption of soy formula has been linked to autoimmune thyroid disease.

Properly or traditionally fermented, organic, and unprocessed soy products such as natto, miso, and tempeh are fine – it's the unfermented soy products that you should stay away from, like soy meat, soy milk, soy cheese, etc.

To know more about the evils of soy, read [***The Whole Soy Story: The Dark Side of America's Favorite Health Food.***](#)

3. Bromines — Bromines are a common endocrine disruptor. Because bromide is also a halide, it competes for the same receptors that are used in the thyroid gland to capture iodine. This will inhibit thyroid hormone production resulting in a low thyroid state.

When you ingest or absorb bromine, it displaces iodine, and this iodine deficiency leads to an increased risk for cancer of the breast, thyroid gland, ovary, and prostate – cancers that we see at alarmingly high rates today. This phenomenon is significant enough to have been given its own name: the Bromide Dominance Theory.⁷

In addition to psychiatric and thyroid problems, bromine toxicity can manifest as skin rashes and severe acne, loss of appetite and abdominal pain, fatigue, a metallic taste in the mouth, and cardiac

arrhythmias. Bromine can be found regularly in a number of places, including:

- **Pesticides**, specifically methyl bromide, used mainly on strawberries, predominantly in California
- **Plastics**, such as those used to make computers
- **Bakery goods and some flours** often contain a "dough conditioner" called potassium bromate
- **Soft drinks**, including Mountain Dew, Gatorade, Sun Drop, Squirt, Fresca, and other citrus-flavored sodas – in the form of brominated vegetable oils (BVOs)
- **Medications** such as Atrovent inhaler, Atrovent Nasal Spray, Pro-Banthine (for ulcers), and anesthesia agents
- **Fire retardants** like [polybromo diphenyl ethers or PBDEs](#) is used in fabrics, carpets, upholstery, and mattresses

The more you can free your body of the toxic halides, the more iodine your body will be able to hang onto, and the better your thyroid will function. Laura Power, a nutritional biochemist, offers these suggestions for increasing secretion of fluorine and bromine:

- Increase your iodine and vitamin C intake
- Opt for unrefined sea salt
- Have Epsom salts baths
- Sweat in a far-infrared sauna

4. Stress and Adrenal Function — Stress is one of the worst thyroid offenders. Your thyroid function is intimately tied to your adrenal function, which is intimately affected by how you handle stress.

Many of us are almost always under chronic stress, which results in increased adrenaline and cortisol levels, and elevated cortisol has a

negative impact on thyroid function. Thyroid hormone levels drop during stressful times, which is when you actually need it the most.

When stress becomes chronic, the flood of stress chemicals – adrenaline and cortisol – produced by your adrenal glands interfere with your thyroid hormones, causing a whole gamut of health-related issues like obesity, high blood pressure, high cholesterol, and/or unstable blood sugar levels. A prolonged stress response can lead to adrenal exhaustion, which is also known as adrenal fatigue and which is often found alongside thyroid disease.

But that's not all. Environmental toxins place extra stress on your body, too. Pollutants such as petrochemicals, organochlorines, pesticides, and chemical food additives negatively affect thyroid function. For ultimate stress relief, I recommend you to read my article [8 Expert Stress-Busting Tips](#).

Iodine: Probably Your Best Weapon Against Thyroid Problems

Iodine is perhaps the biggest piece of the puzzle when it comes to thyroid hormones. It is a vitally important nutrient that is detected in every organ and tissue. It is essential for healthy thyroid function and efficient metabolism, and there is increasing evidence that relates low to numerous diseases, including cancer.

[Iodine](#) is a potent anti-bacterial, anti-parasitic, anti-viral and anti-cancer agent. It has four significant roles in your body, namely to maintain your weight and metabolism, to develop brain and cognitive function in children, to optimize fertility, and to strengthen your immune system.

Though thyroid health is often what people think of when they think of iodine, other tissues also absorb and use large amounts of

iodine,⁸ including your breasts, skin, salivary glands, pancreas, brain, stomach, cerebral spinal fluid, and thymus

Iodine deficiency or insufficiency in any of these tissues will lead to tissue dysfunction. Hence the following symptoms could provide clues that you're not getting enough iodine in your diet. For example, iodine deficiency in:

- Salivary glands** — Disables your saliva production, making your mouth dry
- Skin** — Results in rough and dry skin and inability to sweat normally
- Brain** — Lowers alertness and intelligence quotient (IQ) levels
- Muscles** — Produces nodules, scar tissue, pain, fibrosis, fibromyalgia

The [Total Diet Study, performed by the FDA](#), reported an iodine intake of 621 micrograms for two-year-olds between 1974 and 1982, compared with 373 micrograms between 1982 and 1991. During the same time period, the baking industry replaced iodine-based anti-caking agents with bromine-based agents.⁹

In addition to iodine's disappearance from our food supply, exposure to toxic competing halogens –bromine, fluorine, chlorine, and perchlorate– has dramatically increased. You absorb these halogens through your food, water, medications, and environment, and they selectively occupy your iodine receptors, worsening your iodine deficit. Here are more factors contributing to falling iodine levels:

- Diets low in fish, shellfish and seaweed
- Vegan and vegetarian diets
- Less use of iodide in the food and agricultural industry
- Fluoridated drinking water
- Rocket fuel (perchlorate) contamination in food

- Decreased use of iodized salt
 - Less use of iodide in the food and agricultural industry
 - Use of radioactive iodine in many medical procedures, which competes with natural iodine
-

How to Increase Your Iodine Levels Naturally

Sadly, it's thought that up to 40 percent of the population worldwide is at risk for iodine deficiency.¹⁰ As a matter of fact, iodine deficiency is one of the three most common nutritional deficiencies, along with magnesium and vitamin D.¹¹

Here are some helpful strategies to increase your iodine levels naturally:¹²

1. Eat organic as often as possible. Wash all produce thoroughly to minimize your [pesticide exposure](#).
2. Avoid eating or drinking from (or storing food and water in) plastic containers. Use glass and safe ceramic vessels.
3. If you have to eat grain, look for organic whole-grain breads and flour. Grind your own grain, if possible. Look for the "no bromine" or "bromine-free" label on commercial baked goods.
4. Avoid sodas. Make natural, filtered water your beverage of choice.
5. If you own a hot tub, look into an ozone purification system. Such systems make it possible to keep the water clean with minimal chemical treatments.

6. Look for personal care products that aren't laced with toxic chemicals. Remember: anything you put on your skin can potentially go into your bloodstream.

7. When in a car or a building, open windows as often as possible, preferably on opposing sides of the space for cross ventilation. Utilize fans to circulate the air. Chemical pollutants are in much higher concentrations inside buildings (and cars) than outside.

If you suspect that you are iodine-deficient, I strongly encourage you to visit your healthcare provider for a urine iodine challenge test.

You can also get an affordable prescription for SSKI or super-saturated potassium iodine, which you apply on your skin once a day. If when you touch something with slightly wet fingertips you see a yellowish stain, it means the iodine is coming out of your skin, indicating that your body has enough supply of iodine inside.

Simple Steps That You Can Do to Improve Your Thyroid Health

Here are simple ways that you can take in order to improve the performance of your thyroid:

- **Identify and treat the underlying causes** — Find out what's really triggering your thyroid problems – whether it's iodine deficiency, hormone imbalance, environmental toxicity, or inflammation – to address it appropriately. For best results, consult an integrative medical practitioner.

- **Load up on fresh iodine-rich foods** — As an alternative to iodine supplementation, eat enormous amounts of toxin-free sea vegetables or sea weeds like [spirulina](#), hijiki, wakame, arame, dulse, nori, and kombu, which are loaded with the thyroid-friendly nutrient, iodine, and other beneficial minerals. However, make sure that these are

harvested from uncontaminated waters. The recommended dose is about five grams a day or about one ounce per week. Raw milk and eggs contain iodine as well.

•**Pay attention to other key aspects of your diet** — Munch on [Brazil nuts](#), which are rich in selenium. Load up on foods high in vitamin A and omega-3 fatty acids. Veer away from gluten and soy-containing foods and beverages.

•**Minimize your stress levels** — Take a break, meditate, soak in the tub, go on vacation – do whatever works for you. Practice Emotional Freedom Technique (EFT), an energy psychology tool that excellently reduces stress.

•**Make an effort to limit your exposure to toxins** — Filter your air and water to avoid contact with poisonous contaminants. Use an infrared sauna and hot soaks to help your body combat infections and detoxify from petrochemicals, metals, PCBs, pesticides, and mercury. Taking [chlorella](#) for detoxification is also advised.

•**Avoid all sources of bromide as much as possible** — Bromides are a menace to your endocrine system and are present all around you. Despite a ban on the use of potassium bromate in flour by the World Health Organization (WHO), bromides can still be found in some over-the-counter medications, foods, and personal care products. Being a savvy reader of labels can save you from tons of toxic trouble.

•**Get adequate amounts of sleep** — Inadequate sleep contributes to stress and prevents your body from regenerating fully. For more helpful tips on getting high-quality sleep, please review my [33 Secrets to a Good Night's Sleep](#).

•**Exercise** — Exercise directly stimulates your thyroid gland to secrete more thyroid hormone and increases the sensitivity of all your tissues to thyroid hormone. It is even thought that many of the health benefits

of exercise stem directly from improved thyroid function. Walk your dog in the park, jog in the morning, and incorporate strength training and other core-building routines. You can also give Peak Fitness a try.