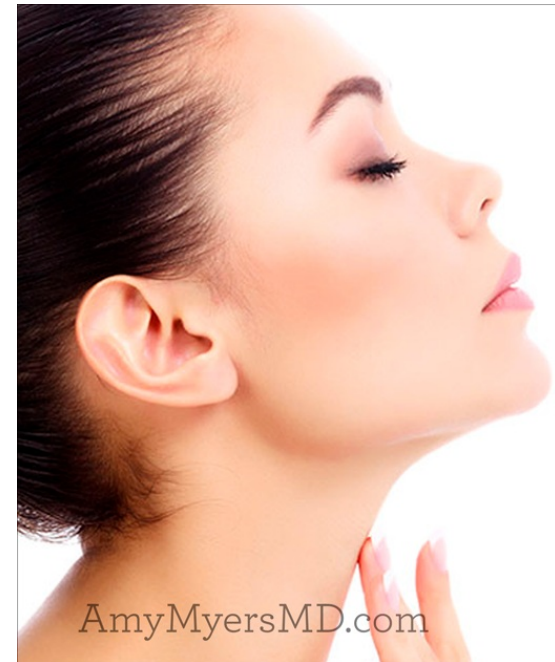


Four Essential Nutrients for Thyroid Function

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Four Essential Nutrients for Thyroid Function

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Your thyroid is your body's engine, not only because it powers your whole body, but also because it requires many different interconnected parts, working in unison, to run smoothly. That includes a number of important chemicals and nutrients. This week I will cover the important role that four of those nutrients, iodine, selenium, zinc, and iron play in your thyroid health and how you can maintain healthy levels of each.

The Importance of Iodine in Thyroid Health

As I've [mentioned previously](#), iodine is one of the two building blocks of your thyroid hormones. Your thyroid converts tyrosine (the other building block) into thyroglobulin and attaches between one and four iodine atoms to create T1, T2, T3, and T4 respectively. Without enough iodine, your thyroid simply can't produce its hormones.

Healthy iodine levels can be maintained by eating seafoods such as [seaweed](#) and saltwater fish, as well as taking a daily iodine supplement. I carry a [thyroid support supplement](#) in my store that combines iodine and tyrosine to provide both of the building blocks of your thyroid hormones. It is very important to maintain sufficient levels of iodine to reduce the risk of iodine displacement, where other chemicals with similar structures (namely fluorine, chlorine, and bromine) are absorbed and stored by your thyroid in place of iodine. For more information on this, take a look at [this article](#).

The Importance of Selenium in Thyroid Health

The enzyme that converts T4 (the inactive form of thyroid hormone) to T3 (the active form), is a selenium-dependent enzyme, so without enough selenium your thyroid hormones are stuck in their inactive state, [causing hypothyroidism symptoms](#).

Sufficient levels of selenium also help prevent and reverse autoimmune thyroid. When your body converts iodide (the form iodine that you ingest, such as table salt, which is sodium iodide) into iodine, the process produces hydrogen peroxide. Hydrogen peroxide is an oxidant and damages thyroid cells, which can trigger an autoimmune response. Selenium acts to neutralize the hydrogen peroxide, and research has shown that increasing selenium levels in patients with autoimmune thyroid disease [reduces their level of thyroid peroxidase antibodies](#) (TPOAb).

There are many foods that are naturally rich in selenium, most notably brazil nuts. If you are following The Myers Way® Autoimmune Protocol, I recommend avoiding nuts for the first 30 days and then adding them back in if you can tolerate them. Fortunately, meats, fish, and shellfish are also high in selenium, so there are plenty of opportunities to maintain sufficient levels of selenium through your diet. To ensure that you maintain sufficient selenium levels, I also recommend supplementing your diet with at least 200 mcg of selenium, either from a [high-quality multivitamin](#) or a thyroid support supplement.

The Importance of Zinc in Thyroid Health

Like selenium, zinc plays a role in the enzyme needed to convert T4 to T3. Zinc is also necessary to trigger your hypothalamus' thyroid hormone receptors, meaning that without enough zinc, your hypothalamus can't accurately gauge thyroid hormone levels to increase production when levels are low. Because of these two factors, [studies have linked](#) zinc deficiency with decreased thyroid production and hypothyroidism.

Beef is good source of dietary zinc, and, as with iodine and selenium, I recommend taking a [zinc supplement](#) and/or a [high-quality multivitamin](#) with at least 25mg of zinc. Zinc can actually deplete your body's copper levels, so it is also advised to pair your zinc supplement with a copper supplement.

The Importance of Iron in Thyroid Health

Iron contributes two key steps to thyroid hormone production. First, the enzyme that converts iodide to iodine (so that it can combine with tyrosine to become thyroid hormones) is [dependent on iron](#). Second, like selenium and zinc, iron is required to convert T4 to T3.

I find that most of the women I treat in my clinic are deficient in iron, specifically ferritin, the protein that stores your iron, since they are menstruating monthly. It is particularly common among women following a vegetarian or vegan diet, but I see it frequently in those following a paleo diet as well.

Beef or chicken liver, clams, mussels, oysters, and spinach are all great sources of dietary iron. For a delicious and simple way to prepare liver, check out our recipe for [Organic Beef Liver with Bacon and Rosemary](#). You can also supplement your iron intake from food with an [iron supplement](#).

Testing Your Iodine, Selenium, Zinc, and Iron Levels

There are two different tests that are used to measure iodine levels, but I don't use either of them in my clinic, as they are unreliable. One is a skin test where an iodine tincture (the orange liquid they use when you're having blood drawn) is applied to the skin, and over the course of 24 hours you observe how quickly it is absorbed by the skin. The second is an iodine loading test where patients take a 50mg dose of iodine and then collect their urine over 24 hours to measure how much iodine they absorbed vs expelled. The thinking is that the more iodine is absorbed by your body, the more deficient you are. The problem with these tests is that everyone absorbs nutrients at different rates, and the tests don't account for individual body chemistry. Instead, I recommend keeping your dietary and supplement iodine intake between 150 and 450 mcg daily and monitoring your thyroid function for hypothyroidism symptoms that might indicate a deficiency.

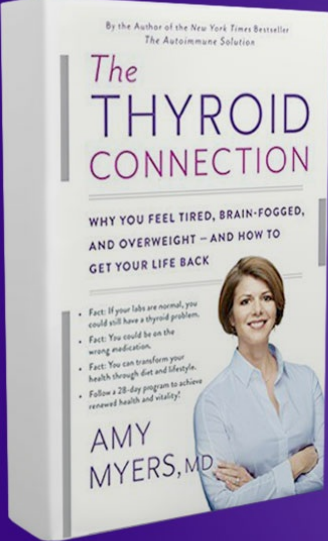
I determine selenium and zinc levels as part of a very comprehensive set of tests that I frequently order for my patients called an [ION® \(Individual Optimal Nutrition\) Panel](#). The panel analyzes both urine and blood samples to measure levels of key vitamins, minerals, antioxidants, and organic, fatty, and amino acids. It provides a very complete picture of a patient's nutrient status and offers very insightful clues to what might be causing their health conditions. If you're seeing a [Functional Medicine doctor](#), consider requesting a comprehensive workup such as the ION® panel, and if not, a conventional doctor can run standard blood tests to determine your selenium and zinc levels.

When checking for iron deficiency, be sure to ask your doctor to test your ferritin levels, rather than the standard iron tests, which measure your hemoglobin and hematocrit levels. Hemoglobin and hematocrit levels will only register as low if you have a severe iron deficiency, whereas ferritin is the storage protein for iron, and a better indication of the actual amount of iron available in your body. Your ferritin levels can be checked through a standard lab, and you should aim to keep your levels between 50-100 ng/mL.

If you find that you are deficient in any of these four nutrients essential for thyroid health, I recommend eating a diet full of whole, nutrient-rich foods and taking supplements where necessary. You can find [a huge variety of recipes](#) on my site that contain the foods mentioned here, and all of the supplements are available in [my store](#).

Restore Thyroid Function & Take Your Health Back

In my new book, [The Thyroid Connection](#), I cover everything you need to know about thyroid disease, including its true underlying causes, how to work with your doctor, how to choose the right medication, and a 28-day program to get your life back.



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