

**Title:** Understanding Hypothyroidism

**Name:** Kelsey Pautz

**Plain Language Summary:**

**The thyroid gland**

The thyroid is a gland located in your neck. It is told to send thyroid hormones out into the blood by a second gland that is in your brain. More specifically, the gland in your brain sends out a hormone called thyroid stimulating hormone, which tells the thyroid to start making hormones. In primary hypothyroidism, the thyroid gland is not making enough of the hormones.

**What can cause the gland to stop making enough thyroid hormone?**

There are many reasons the thyroid gland stops making thyroid hormone. One reason could be you have a disease where your body attacks your thyroid, and it stops working well because it is injured. If you had surgery on your neck, the gland may have been damaged. The gland could also have been injured by a medication you are taking, but this is less common. Additionally, decreased output can be a normal part of aging, while some people are born with the condition. While less likely, it is possible that the hormones are low because you are missing nutrient called iodine. This nutrient is needed to make the thyroid hormones. This cause is rarely seen in the United States because iodine is added to table salt, which Americans eat a lot of each day. It may also seem like the thyroid is not working if it is not receiving a message to turn on from the gland in your brain. There is a lot to think about, but there are tests your doctor can run to determine the cause.

**What are the signs the gland isn't making products?**

First, you should know what the products of the thyroid gland do in your body. A few of these roles include determining how fast to break down the food you eat, what temperature your body is at, and how much of a mineral called calcium is in your blood.

If the thyroid can't make thyroid hormone, you may notice many changes. These may include feeling tired, depressed, unable to handle cold, weight gain, constipation, swelling in your eyelids, face, and legs, dry skin, rough hair, muscle cramps, and a slow heart beat.

**Beside the changes described above, is this bad for my health?**

When your gland isn't working, there is more fat called cholesterol in your blood. The fat can build up in your blood vessels, which can lead to serious problems with your heart. The large amount of weight gain that occurs puts you at risk for other diseases like diabetes and high blood pressure. These diseases can hurt organs like your heart and kidneys. Your mental health – mood, energy level- can also be seriously affected.

**How do doctors decide if my gland isn't working right?**

If your doctor thinks you might not have enough thyroid hormone based on the symptoms you describe, he can measure you TSH levels as well as your thyroid hormone levels. To run these tests, a sample of your



blood will have to be drawn. This will give your doctor an idea of what is causing your low hormone level and how to treat it.

### **What can be done to treat my primary hypothyroidism?**

A man made version of the hormones you are missing have been put into a pill that you can take to increase your hormone levels back to the normal range. The medication will have to be taken throughout your life. However, the amount of medicine you need may change over time. So, it is important to return to your doctor as she/he suggests, so the blood test can be repeated. The results of the test will help your doctor choose how much medication you need. The right dose is needed to keep you feeling your best.

### **For more information online:**

Hypothyroidism

<http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001393/>

Hypothyroidism (underactive thyroid)

<http://www.mayoclinic.com/health/hypothyroidism/DS00353>

### **Key Words:**

Hypothyroidism

High TSH

Thyroid hormone

Underactive thyroid

Levothyroxine

\*\*\*\*\*NOTE: word assesses the whole document at an 8<sup>th</sup> grade reading level, if you remove the internet web sites and key words so it is just the summary it drops to a 7<sup>th</sup> grade level. Words not at a 6<sup>th</sup> grade level I tried to explain.

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