

Women And Hypothyroidism



**January 2005
KSC/CCAFS Women's Health Education and Wellness
Program**

Heather Torbett, MPH

The Thyroid Gland

The thyroid, though just a small gland in the lower front of the neck, is a very important gland in the human body. This gland secretes a hormone into the blood stream to target the cells of each tissue and organ in the body. The thyroid hormone serves the purpose of keeping the brain, heart, muscles and other organs working the way they should and, further aids the body in using energy as well as helps regulate the bodies' temperature.

Thyroid Disorders

Thyroid diseases can be disruptive to one's lifestyle, not to mention expensive to take care of, however, they are quite common and very treatable.

Roughly 15% of the American population has some type of thyroid disorder. Thyroid disorders are disruptive to average functioning because they impair one's physical and mental abilities. The disorders also lead to morbidity in the United States each year.

In order to discover thyroid disorders at early stages, doctors are test thyroid hormone levels routinely. Unfortunately research shows that many thyroid disorders are going undiagnosed by many Americans since they are associated with major epidemics in the United States such as osteoporosis, cardiovascular disease, hyperlipidemia and neurological disease. Researchers are calling these, "hidden thyroid disorders." It is recommended that patients have his/her thyroid checked at least once a year for changes

Fortunately the disorders are treatable and many times preventable. There are many reputable therapies available for thyroid disorders of which you will find mentioned in this information packet. Thyroid disorders can be avoided with the proper iodine nutrition; using less iodine can be worse than using too much. However, researchers have discovered that Americans have plenty of iodine in their diets and are getting more than enough iodine from table salt alone. People consuming moderate amounts of seafood, dairy products and meat, or regularly taking iodine-containing vitamin supplements are unlikely to become deficient. Deficiencies of selenium, vitamin A, and iron are all composite effects of iodine deficiency on the production of the thyroid hormone. The best way to control the thyroid gland is to find appropriate diagnosis and treatment before the problem gets out of hand.

Hypothyroidism

There are many types of thyroid disorders such as goiter, hypothyroidism, hyperthyroidism and other autoimmune disorders. The most commonly diagnosed thyroid disorder is hypothyroidism. Hyperthyroidism, not to be confused with hypothyroidism, is another common thyroid disorder. Hyperthyroidism occurs when the thyroid gland is overactive and produces an excessive amount of thyroid hormone. Though both disorders are equally important, we will focus on Hypothyroidism because it is the most common thyroid disorder for women in the United States.

Hypothyroidism or 'underactive thyroid' occurs when the thyroid gland does not produce a sufficient amount of thyroid hormone for the body. As mentioned above, this lack of thyroid hormone can lead to problems with the brain, heart and other organ disfunctions, as well as a loss of energy. Hypothyroidism is caused by an autoimmune disease wherein the immune system starts to destroy the thyroid gland. The disorder is very common effecting 1 out of every 100 people, and 3 out of every 100 women of childbearing age. Hypothyroidism becomes more common with age effecting almost 10% of older women.

Hypothyroidism is a hereditary condition. Doctors have discovered the disorder tends to run in the family line. Past research and studies prove that the chance of developing a thyroid disorder increases if you have a history of hypothyroidism or hyperthyroidism in your family.

Hypothyroidism slows the metabolism and in turn affects every system in the body.

Causes of Hypothyroidism

- *Autoimmune disease.* The bodies' immune system mistakes thyroid gland cells for invaders and attacks the cells. The thyroid then will not have enough cells to function properly to secrete the thyroxine hormone needed for normal organ function.
- *Surgical removal of part or all of the thyroid gland.* If any of the thyroid gland has been removed the person will become hypothyroid because there will not be enough of the gland to produce a sufficient amount of the thyroxine hormone to keep the blood levels normal.
- *Radiation Treatment.* Certain diseases or cancers will be treated with radioactive iodine in order to destroy the thyroid gland, which will leave no thyroid for thyroxine production for the blood stream.
- *Congenital hypothyroidism.* A person who is born with no thyroid or only part of a thyroid gland.
- *Thyroiditis.* An inflammation in the thyroid gland causing the thyroid to let go of all of the stored thyroxine into the blood at once leading to hyperthyroidism; then the thyroid becomes under-active.
- *Medicines.* Amiodarone, lithium, interferonalph, and interleukin-2 can prevent the thyroid gland from making thyroxine normally.

- *Too much or too little iodine.* The thyroid must have the right amount of iodine to produce thyroxine. Too much iodine can cause or worsen hypothyroidism.
- *Damage to the pituitary gland.* The pituitary gland tells the thyroid how much thyroxine to produce. If this gland is damaged the thyroid may stop making enough thyroxine.
- *Rare disorders that infiltrate the thyroid.* Some rare diseases may deposit abnormal substances into the thyroid which can conflict with the thyroid's production of thyroxine.

Signs of Hypothyroidism

Changes in behavior such as:

- Inability to concentrate
- Difficulty reading and/or calculating
- Loss of interest in personal relationships

Symptoms of Hypothyroidism

- Generalized fatigue
- Unexplainable weight gain
- Thinning hair
- Dry scaly skin
- Finger nails break easily
- Constipation
- Disruption of normal menses
- Aching muscles
- Slow heart rate

Thyroid Hormone Treatment

Hypothyroidism is the most common reason for needing thyroid hormone replacement. Thyroid hormone treatment is used to assist the thyroid gland in normal functioning, which is called 'replacement therapy.' 'Suppression therapy' is another form of hormone treatment used to prevent further growth of thyroid tissue. The goal of these therapy treatments is to replicate the normal function of the thyroid gland. The synthetic hormone used in treatment is the T4 (synthetic thyroxine). The T4 hormone works in the same way as a patient's own thyroid hormone. When taking the hormone replacement, it is important not to take too much or too little of the hormone or to switch brands of the hormone. Physicians will place his/her patients on a certain amount and brand of the hormone based on age, weight and other medical conditions. The physician will continue to monitor the function and process of the gland during this time. The hormone comes in several different brands, so it is important to stick to the brand that works best for you, each person will be different from the next.

The hormone is usually taken only once a day. This little amount is enough to produce a balanced level of hormone in the body. It is recommended

that the patient take the hormone early in the morning on an empty stomach, so that food in the stomach will not affect the proper absorption of the hormone. It is best to get on a set schedule for taking the medication; take it the same way and the same time each day. It is suggested that you take a pill as soon as possible if you miss taking it at your normal time. It is safe to take two pills in one day if you miss the day before, one in the morning and the other at night.

Check with your physician for further information on thyroid hormone. He/she can safely explain hormone interaction with medications as well as when and when not to take hormone replacements. As mentioned above, each individual's case with a thyroid disorder will differ from the next, a physician will have to make the right decision for you based on the test results and proper measurements.

Thyroid and Weight

The thyroid hormone regulates an individual's metabolism or basal metabolic rate (BMR). The metabolism is determined by the amount of oxygen the body is using during a certain amount of time. If the metabolism is not using a proper amount of oxygen then the BMR is low and the body is not using enough energy. Studies have shown that patients whose thyroid glands are not working properly tend to have low BMR's.

It is common to gain a bit of weight with hypothyroidism, this extra weight is attributable to excess consumption of salt and water. In general, an individual will gain about 5-10 lbs. due to thyroid problems.

It is suggested that if weight gain is the only symptom that comes with hypothyroidism, it is unlikely that the weight gain is solely due to having a thyroid disorder.

References and Resources

American Thyroid Association

www.thyroid.org