

PATIENT INFORMATION

HYPOTHYROIDISM

Hypothyroidism is a condition in which your body lacks adequate thyroid hormone. If you have been diagnosed by your physician as having hypothyroidism, you are one of over five million Americans having this common medical condition. Some degree of thyroid hormone deficiency may effect as many as 5-10% of all women.

WHAT ARE THE SYMPTOMS OF HYPOTHYROIDISM?

People with hypothyroidism may experience these symptoms:

- Fatigue
- Weakness
- Weight gain or increased difficulty in losing weight
- Intolerance to cold
- Muscle aching and cramps
- Constipation
- Depression
- Memory loss
- Abnormal menstrual cycles or heavy menses
- Facial and hand puffiness
- Slow movements
- Irritability
- Decreased libido
- Coarse, dry hair
- Dry, rough pale skin
- Hair loss

The number and severity of symptoms vary with the duration and degree of thyroid hormone deficiency. In fact, some individuals with hypothyroidism have no symptoms at all.

Hypothyroidism may cause the thyroid gland, located at the base of the neck, to become inflamed and enlarged. Although the enlarged gland may not be noticeable when looking at the neck, the first sign of a swollen thyroid (also called a goiter) may be a “tight collar.” Left untreated, hypothyroidism and its symptoms usually worsen. Rarely, complications can result in severe life-threatening depression, heart failure or coma. Hypothyroidism can be easily diagnosed with a blood test and is easily treated.

WHAT IS THE THYROID AND WHAT DOES IT DO?

The thyroid gland is a butterfly-shaped gland located at the base of the neck. Its job is to produce the thyroid hormone. This travels throughout the body, where it influences metabolism. Among other things, metabolism refers to the way that we burn calories, fat and sugar, and build muscles.

WHAT CAUSES HYPOTHYROIDISM?

If the thyroid gland is inflamed or otherwise injured, it may be unable to produce enough thyroid hormone to meet the body’s needs. The most common cause of thyroid gland failure is called *autoimmune thyroiditis* (or Hashimoto’s disease), a form of thyroid inflammation caused by the patient’s

own immune system. Ordinarily, our immune system fights only outside invaders, like bacteria, and never attacks part of ourselves. In autoimmune thyroiditis, however, the immune system damages the patient's own thyroid gland (fortunately, the immune system otherwise continues to work fine).

HOW DO YOU MAKE THE DIAGNOSIS?

To be sure that a person's symptoms are really due to hypothyroidism, it is very important that blood tests be done to confirm the diagnosis.

Accurate and reliable laboratory tests can measure blood levels of TSH. In the typical person with an underactive thyroid gland the TSH level will be high. Once treatment for hypothyroidism has been started, it probably will continue for the patient's life. Therefore, it is of great importance that the diagnosis be firmly established.

HOW DO YOU TREAT HYPOTHYROIDISM?

The most satisfactory treatment is the oral administration of levothyroxine once daily, preferably in the morning. This medication, pure synthetic T₄, replaces the T₄ that the thyroid gland fails to secrete. It comes in multiple strengths, which means that an appropriate dosage can be found for each patient. The dosage should be re-evaluated and possibly monthly until the proper level is established. The dose should then be re-evaluated annually.

Patients may notice a slight response to therapy within 1 to 2 weeks, but the full metabolic response to thyroid hormone therapy is often delayed. It may take several weeks after restoration of normal serum thyroid hormone levels for the patient to feel completely normal.

It is very important that a patient receive the correct amount of thyroid hormone. Not enough hormone may be indicated by continued fatigue, mental dullness or muscle cramps. Excessive thyroid hormone could cause symptoms of nervousness, palpitations, insomnia, or osteoporosis.

Levothyroxine can be safely taken with most other medications but it is best taken on an empty stomach without any other food or vitamins. (esp. calcium or iron supplement, which can bind to the medication and reduce absorption) Patients taking cholestyramine (a compound used to lower blood cholesterol), carafate (used for stomach ulcers), digoxin (used for heart conditions), or medications for seizures should check with their physician about potential interactions.

Women taking levothyroxine who become pregnant should feel confident that the medication is exactly what their own thyroid gland would otherwise make. However, they should check with their physician since the levothyroxine dose may have to be increased during pregnancy.

Many studies have looked at adding liothyronine (T₃) to the levothyroxine (T₄) does not provide any additional utility.