

January

Thyroid Health

Cardinal Pharmacy's

Health Topic of the Month



The thyroid gland is a small, butterfly-shaped gland located in the base of the neck just below the Adam's apple. Although relatively small, the thyroid gland plays a huge role in our body, influencing the function of many of the body's most important organs, including the heart, brain, liver, kidneys and skin. Ensuring that the thyroid gland is healthy and functioning properly is vitally important to the body's overall well-being.

HOW YOUR THYROID WORKS

Think of your thyroid as a car engine that sets the pace at which your body operates. An engine produces the required amount of energy for a car to move at a certain speed. In the same way, your thyroid gland manufactures enough thyroid hormone to prompt your cells to perform a function at a certain rate.

Just as a car can't produce energy without gas, your thyroid needs fuel to produce thyroid hormone. This fuel is iodine. Iodine comes from your diet and is found in iodized table salt, seafood, bread and milk. Your thyroid extracts this necessary ingredient from your bloodstream and uses it to make two kinds of thyroid hormone: thyroxine (T4) and triiodothyronine (T3). Once T4 is produced, it is stored within the thyroid's vast number of microscopic follicles. Some T3 is also produced and stored in the thyroid. When your body needs thyroid hormone, it is secreted into your bloodstream in quantities set to meet the metabolic needs of your cells. The network of communication between the hypothalamus, the pituitary gland, and the thyroid gland is referred to as the hypothalamic-pituitary-thyroid axis (HPT axis).

WHEN THINGS GO WRONG

The HPT axis is a highly efficient network of communication. Normally, the thyroid does out just the right amount of hormone to keep your body running smoothly. TSH levels remain fairly constant, yet they respond to the slightest changes in T4 levels and vice versa. But even the best networks are subject to interference.

When outside influences such as disease, damage to the thyroid or certain medicines break down communication, your thyroid might not produce enough hormone. This would slow down all of your body's functions, a condition known as **hypothyroidism** or underactive thyroid. Your thyroid could also produce too much hormone sending your systems into overdrive, a condition known as **hyperthyroidism** or overactive thyroid. These two conditions are most often features of an underlying thyroid disease.

When considering thyroid disease, doctors ask two main questions: First, is the thyroid gland inappropriately producing an abnormal amount of thyroid hormone? And second, is there a structural change in the thyroid, such as a lump—known as a nodule—or an enlargement—known as a goiter? Though one of these characteristics does not necessarily imply that the other is present, many thyroid disorders display both.

HOW COMMON IS THYROID DISEASE?

Thyroid disease is more common than diabetes or heart disease. Thyroid disease is a fact of life for as many as 30 million Americans—and more than half of those people remain undiagnosed. Women are five times more likely than men to suffer from hypothyroidism (when the gland is not producing enough thyroid hormone). Aging is just one risk factor for hypothyroidism.

HOW IMPORTANT IS MY THYROID IN MY OVERALL WELL-BEING?

The thyroid gland produces thyroid hormone, which controls virtually every cell, tissue and organ in the body. If your thyroid is not functioning properly, it can produce too much thyroid hormone, which causes the body's systems to speed up (hyperthyroidism); or it can create too little thyroid hormone, which causes the body's systems to slow down (hypothyroidism).

Untreated thyroid disease may lead to elevated cholesterol levels and subsequent heart disease, as well as infertility and osteoporosis. Research also shows that there is a strong genetic link between thyroid disease and other autoimmune diseases, including types of diabetes, arthritis and anemia.

Simply put, if your thyroid gland isn't working properly, neither are you.

HOW DO YOU KNOW IF YOU HAVE A THYROID PROBLEM?

First, you must understand how to recognize the symptoms and risk factors of thyroid disease. Since many symptoms may be hidden or mimic other diseases and conditions, the best way to know for sure is to ask your doctor for a TSH (thyroid-stimulating hormone) test, a simple blood test to verify your thyroid gland's condition. Also, take a minute and perform a self Neck Check. And because thyroid disease often runs in families, examinations of your family members and a review of their medical histories may reveal other individuals with thyroid problems.

WHAT ARE SOME OF THE REASONS TO CONSIDER A THYROID EVALUATION?

- **Family history:** A familiar place to look for thyroid disorder signs and symptoms is your family tree. If you have a first-degree relative (a parent, sibling or child) with thyroid disease, you would benefit from thyroid evaluation. Women are much more likely to be thyroid patients than men; however, the gene pool runs through both.
- **Prescription medications:** If you are taking Lithium or Amiodarone, you should consider a thyroid evaluation.
- **Radiation therapy to the head or neck:** If you have had any of the following radiation therapies, you should consider a thyroid evaluation: radiation therapy for tonsils, radiation therapy for an enlarged thymus, or radiation therapy for acne.
- **Chernobyl:** If you lived near Chernobyl at the time of the 1986 nuclear accident, you should consider a thyroid evaluation.



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