



Thyroid Disease

The thyroid gland is located at the base of the neck. It has 2 sides and is shaped like a butterfly. It produces 2 hormones that control metabolism in the body. These hormones are T4 (thyroxin) and T3 (triiodothyronine). The thyroid gland is controlled by thyroid stimulating hormone (TSH) that is released from the pituitary gland located at the base of the brain. TSH tells the thyroid to make more T4 and T3.

Hypothyroidism

Hypothyroidism is a condition where not enough T4 or T3 is being produced by the thyroid gland. Hashimoto's thyroiditis is the most common cause of hypothyroidism. This condition is an autoimmune in which antibodies are produced against the thyroid gland. The pituitary gland then increases TSH to tell the thyroid to produce more T3 and T4. Often the thyroid gland enlarges as it is producing more thyroid hormone. This enlargement is called a goiter.

The symptoms of hypothyroidism are slow to develop and may take months or years before any symptoms are noted. Symptoms include fatigue, weight gain, decreased appetite, feeling cold when others do not, constipation, "puffy" eyes, hair loss, brittle nails and change in menstrual periods.

The diagnosis of hypothyroidism can be made by physical exam and laboratory tests. The TSH test shows elevated values and thyroid antibodies may be detected. The treatment of hypothyroidism is medication. The optimal dose of replacement thyroid hormone is determined by measuring TSH levels in the blood. The thyroid dose may need to be increased in women who are pregnant.

Hyperthyroidism

This is sometimes called an overactive thyroid because the thyroid produces too much thyroid hormone causing the metabolism to speed up. The most common cause of hyperthyroidism is a disorder called Graves Disease. Women with this disease make a substance that stimulates the thyroid gland to make too much thyroid hormone.

Symptoms of hyperthyroidism include fatigue, nervousness, weight loss, rapid heart rate, hand tremors, increased sweating, feeling hot when others do not, diarrhea and changes in menstrual periods. Patients may also notice a wide-eye stare or bulging eyes.

Treatment of hyperthyroidism can be antithyroid medicine that may lower the thyroid hormone. If the medications do not work, an endocrinologist may recommend using radioactive iodine to destroy part or all of the thyroid gland. In some cases, surgery may be needed.

Thyroid Nodules

Thyroid nodules are small bumps in the thyroid gland. They may be palpated by the patient or the physician. Tests to help determine whether the nodule is cancer or benign include ultrasound, radioactive thyroid scan or needle biopsy. If the nodule is benign, thyroid medication can be used to suppress the nodule. If cancer is found surgical is usually curative.