



# Thyroid Disease and Aging

## Patient Education Sheet

This sheet focuses on the diagnosis and treatment of thyroid disorders in older patients.

### Thyroid Disorders in the Older Patient

- The risk of developing a thyroid disorder increases with age. Hypothyroidism (too little thyroid hormone) occurs more commonly in older individuals, and 9% to 16% of people age 60 and over are believed to have mild thyroid failure (mild hypothyroidism).
- Thyroid disorders are often difficult to diagnose because the signs and symptoms are often subtle and may resemble common problems related to the natural aging process (eg, dry skin, constipation, fatigue, or muscle and joint pain).
- Older patients may experience fewer symptoms than younger patients, making it harder for doctors to discover thyroid disorders.

### The Thyroid Gland—The Basics

- The thyroid is a butterfly-shaped gland located at the base of the neck that lies on either side of the windpipe. It produces and releases thyroid hormone.
- Thyroid hormone affects every cell in the body and controls many of the body's functions.
- The amount of thyroid hormone made by the thyroid gland is regulated by the pituitary gland and the hypothalamus in the brain.
- The pituitary gland releases thyroid-stimulating hormone (TSH), which signals the thyroid to produce more thyroid hormone. When the pituitary gland senses that there is the right amount of thyroid hormone in the body, it will decrease thyroid hormone production.
- Physicians can measure the health of the thyroid gland by measuring levels of TSH.
- Too little thyroid hormone production causes a condition known as hypothyroidism; too much thyroid hormone production causes a condition known as hyperthyroidism.

### Hypothyroidism and Mild Thyroid Failure

- When a patient has hypothyroidism, he or she may feel tired and cold, have a slow heartbeat, or feel depressed.
- Mild thyroid failure is a mild form of hypothyroidism. In patients who have mild thyroid failure, thyroid hormone levels are normal, but the TSH level is elevated.
- Patients with mild thyroid failure often do not show any obvious signs, but untreated mild thyroid failure may lead to hypothyroidism.

### Hyperthyroidism and Mild Hyperthyroidism

- Patients with hyperthyroidism may feel jittery; and may experience nervousness, a rapid heartbeat, or unexplained weight loss.
- Patients with mild hyperthyroidism have normal thyroid hormone levels and a decreased TSH level. Untreated mild hyperthyroidism can progress to hyperthyroidism, which may lead to potentially harmful consequences, such as cardiovascular disorders.

### Goiter and Thyroid Nodules

- A goiter is an enlarged thyroid gland. It may be enlarged because it is not working properly or for other reasons, and it may shrink back to normal by itself.

- Thyroid nodules are lumps in the thyroid gland that may overproduce thyroid hormone. Thyroid nodules are often harmless, rarely cancerous, and tend to run in families. If the thyroid nodule is cancerous, the outcome with treatment is usually excellent. Most thyroid cancers can be removed with surgery and a complete recovery is common.

### Diagnosing Thyroid Disorders

- People are more likely to develop a thyroid disorder if they have a family history of thyroid disease, or have autoimmune conditions, such as Addison disease, type 1 diabetes, pernicious anemia, rheumatoid arthritis, or lupus.
- A physician will conduct a physical examination to look for signs and symptoms of a thyroid disorder. The physician will examine the patient's neck, where the thyroid is located, to determine whether a goiter is present. The physician will also examine the thyroid gland to determine whether there are any thyroid nodules present. Weight, blood pressure, and pulse will be measured, and eyes, skin, heart, and the nervous system will be examined as well.
- A physician will also conduct laboratory tests to diagnose a thyroid disorder. The most common is the TSH test, which is a blood test that measures the concentration of TSH in the blood. By measuring TSH, the physician can detect the earliest signs of a thyroid disorder. Thyroid antibody tests will help a physician determine whether a patient's immune system is affecting thyroid function. Another test, the radioactive iodine uptake test consists of having the patient swallow a radioactive iodine pill; 6 to 24 hours later, the physician will determine how much of the radioactive iodine was absorbed. Another laboratory test is a thyroid scan, which is an image taken of the thyroid gland.

### Treating Hyperthyroidism and Hypothyroidism

- The first treatment option for hyperthyroidism is radioactive iodine therapy. The iodine destroys thyroid cells, thereby decreasing the production of thyroid hormone.
- The use of antithyroid drugs is another treatment option for hyperthyroidism. Antithyroid drugs may be given for a period of time before radioactive iodine therapy to slow down the thyroid gland and to lower thyroid levels in the blood.
- A third option is surgical removal of the thyroid. This option is usually not recommended in older patients because of the trauma involved.
- Hypothyroidism is usually treated with thyroid hormone replacement therapy, using a synthetic thyroid hormone called levothyroxine sodium that mimics the hormone the thyroid gland is no longer producing enough of on its own. Treatment will continue for the rest of the patient's life, with a physician monitoring thyroid hormone levels once a year after the correct dose is achieved. When treating hypothyroidism, physicians will have special concern for older patients. Physicians will typically start older patients on a lower dosage than younger patients would receive and then slowly increase the dose until the right dose is determined. Once the dose is correctly adjusted, the physician will prescribe that dose of medication and monitor blood levels on a regular basis.

### More Information

- Patients who have further questions should contact their physician.