



Thyroid Cancer

WHAT IS THYROID CANCER?

The thyroid gland is located in the front of your neck just below the larynx (voice box). It produces hormones that regulate your metabolism—how your body uses energy. Thyroid cancer occurs when tumors, also known as nodules, grow in the thyroid gland.

Most nodules (about 90%) are benign (noncancerous), but those that are cancerous can spread throughout the body and be life-threatening.

DID YOU KNOW?

Most people with thyroid cancer have no symptoms.

WHAT CAUSES THYROID CANCER AND WHO IS AT RISK?

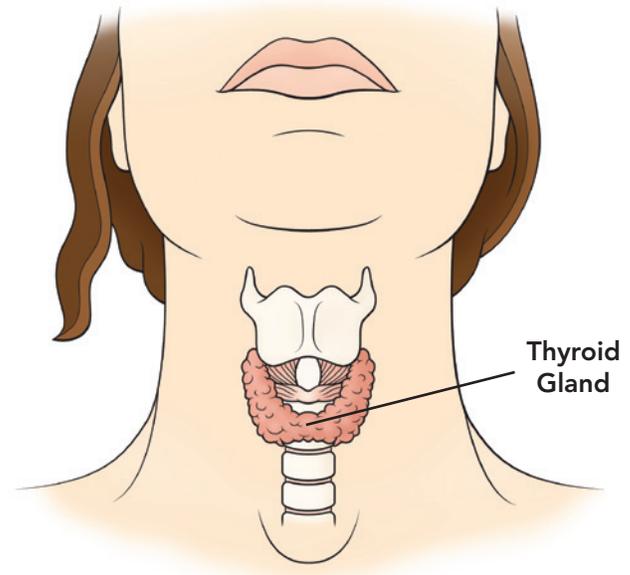
The exact cause of thyroid cancer is not known, but people with certain risk factors are more likely than others to get the disease. These risk factors include

- Radiation treatments to the head, neck, or chest, especially in infancy or childhood
- Family history of thyroid cancer
- A large or rapidly growing nodule
- Age older than 40

Having a risk factor does not mean that you will get thyroid cancer, and some people who do get the disease have no risk factors. Still, having a thyroid nodule with any of these risk factors requires evaluation.

WHAT ARE THE DIFFERENT TYPES OF THYROID CANCER?

- **Papillary** is the most common type. It affects about 8 out of 10 people with thyroid cancer (or 80%). It usually grows very slowly and often spreads to the lymph nodes in the neck. Spreading to the lungs or bones is rare. It affects women twice as often as men, and the typical patient's age is 30 to 50 years. If caught when the tumor is small (less than 1/2 inch) and confined to the thyroid gland, the cure rate is very high—close to 100% in young patients.



- **Follicular** is the second most common type (about 10 to 15% of cases). It rarely spreads to the lymph nodes but can sometimes spread to the lungs or bones. It affects women twice as often as men, and the typical patient's age is 40 to 60 years. If caught when the tumor is small and confined to the thyroid gland, the overall cure rate is high—almost 95% in young patients. The cure rate decreases somewhat with older people.
- **Medullary** is much less common (about 5% of cases). When it doesn't spread beyond the thyroid gland, patients have a 90% chance of surviving for ten years, a 70% chance when it spreads to the lymph nodes in the neck, and a 20% chance when it spreads to distant sites (such as the liver, bone, or brain). This type of thyroid cancer can run in families and requires careful evaluation to determine if other family members may be at risk.
- **Anaplastic** is the least common form (about 1 to 2% of cases) and the most aggressive. It is common for the cancer to return after treatment and the chance of living more than 6 to 12 months is very low. It affects more men than women, mostly people older than 65 years. It is very rare in young patients.

- **External radiation.** To kill cancer cells and shrink tumors, radiation is directed at the nodules from a source outside the body. This type of treatment is less common, but some people, especially those who have advanced cancer and cannot have surgery, can benefit from external radiation.
- **Chemotherapy.** This is the use of drugs to kill cancer cells. Chemotherapy may be beneficial to patients with anaplastic thyroid cancer but is rarely used to treat the other forms, except in clinical trials for advanced disease.

HOW IS THYROID CANCER DIAGNOSED?

Typically, you might find a nodule yourself. Or your doctor might find a nodule during a routine examination.

The most reliable way to diagnose thyroid cancer is with a fine-needle aspiration. This procedure uses a thin needle inserted into the nodule to remove cells or fluid from the nodule for examination under a microscope. This test is very precise for identifying cancerous or "suspicious" nodules and can often identify the type of cancer.

HOW IS THYROID CANCER TREATED?

The treatment varies, depending on the type of cancer and whether it has spread. Treatment options include

- **Surgery.** Your surgeon removes part or, more commonly, all of your thyroid gland, and any abnormal lymph nodes. Some surgeons also remove nearby lymph nodes even if they are not visibly abnormal. After surgery, you will need to take thyroid hormone for the rest of your life to replace the thyroid hormones you can no longer produce.
- **Radioactive iodine (RAI) therapy.** This treatment consists of swallowing a small amount of radioactive iodine to destroy thyroid tissue not removed by surgery. RAI can also treat thyroid cancer that has spread to the lymph nodes and other parts of the body.

WHAT SHOULD YOU DO IF YOU THINK YOU HAVE A THYROID NODULE?

If you think you have a thyroid nodule, see an endocrinologist (a specialist in hormone-related conditions) for diagnosis and treatment. Then get the recommended treatment and follow up with your doctor as needed.

Questions to ask your doctor

- What kind of thyroid cancer do I have?
- What treatment do I need for it?
- What are the risks and benefits of each of my treatment options?
- What else can I do to stay healthy?
- Should I see an endocrinologist?

RESOURCES

- Find-an-Endocrinologist: www.hormone.org or call 1-800-HORMONE (1-800-467-6663)
- Hormone Health Network information about thyroid disorders: www.hormone.org/Thyroid/index.cfm
- National Cancer Institute (National Institutes of Health): www.cancer.gov/cancertopics/types/thyroid
- Mayo Clinic: www.mayoclinic.com/health/thyroid-cancer/DS00492
- Thyroid Cancer Survivors' Association: thyca.org
- American Thyroid Association: www.thyroid.org

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March 2010, 3rd Edition

The Hormone Health Network offers free, online resources based on the most advanced clinical and scientific knowledge from The Endocrine Society (www.endo-society.org). The Network's goal is to move patients from educated to engaged, from informed to active partners in their health care. This fact sheet is also available in Spanish at www.hormone.org/Spanish.

Thyroid Cancer Fact Sheet



www.hormone.org