

Thyroid Cancer

Thyroid cancer forms in the thyroid gland, an organ at the base of the throat that makes hormones affecting heart rate, blood pressure, body temperature, and weight. It also plays a role in regulating the body's calcium. Papillary and follicular carcinomas are the two most common types of thyroid cancer. Additional types include oxyphil cell carcinoma, medullary thyroid carcinoma, and anaplastic carcinoma., and very rare forms are thyroid lymphomas, thyroid sarcomas, and other rare tumors.

Main Types

- **Papillary thyroid cancer:** About 80 percent of all thyroid cancers are diagnosed as papillary carcinoma. This type typically grows slowly, is highly treatable, and is seldom fatal, although it sometimes spreads to the lymph nodes.
- **Follicular thyroid cancer:** About 10 percent of thyroid cancers are diagnosed as follicular carcinoma, which is a subtype of papillary thyroid cancer. It is most common in people without enough iodine in their diet. It doesn't usually spread to the lymph nodes, but can spread to other parts of the body.
- **Hurthle cell cancer:** About 3 percent of thyroid cancers are oxyphil cell carcinoma. This type of thyroid cancer is more difficult to diagnose and treat.
- **Medullary thyroid cancer (MTC):** About 4 percent of all thyroid cancers are diagnosed as MTC, which forms from cells in the thyroid gland that typically helps control calcium levels. It can spread to other body parts before a thyroid nodule is detected. Because it does not take in radioactive iodine, treatment for MTC is more difficult and the prognosis not as favorable.
- **Anaplastic thyroid cancer:** About 2 percent of all thyroid cancers are diagnosed as anaplastic thyroid cancer. This type is believed to occasionally develop from a papillary or follicular cancer. It can grow and spread quickly and is difficult to treat.

Statistics

- In 2018, 53,990 new cases of thyroid cancer are expected to be diagnosed in the United States, with 2,060 deaths.
- In Texas, an estimated 3,631 new thyroid cancer cases will be diagnosed, and 158 deaths are expected in 2018.
- Approximately 3 of 4 cases of thyroid cancer occur in women. It is most frequently diagnosed in people ages 45-54.
- The incidence rate of thyroid cancer in the U.S. has increased by 4 percent per year from 2005 to 2014 and has become the most rapidly increasing cancer type in the U.S. due to advances in screening and detection methods.

Risk Factors

- **Age:** Risk of developing thyroid cancer peaks in women during their 40s and 50s, while men are usually diagnosed in their 60s and 70s.
- **Gender:** Women are three times more likely to develop thyroid cancer than men.
- **Radiation:** Exposure to high levels of radiation increases risk, especially if exposed at a young age.
- **Low Iodine:** People who do not get enough iodine in their diet have a higher risk.
- **Family history:** Those with a family history of thyroid disease or thyroid cancer, familial medullary thyroid cancer (FMTC); colon growths or familial adenomatous polyposis (FAP); familial nonmedullary thyroid carcinoma; Cowden disease; Carney complex, type I; or multiple endocrine neoplasia type 2A and 2B syndrome have a higher risk.
- **Personal history:** Individuals with an enlarged thyroid, a condition called goiter, may have a higher risk.

Symptoms and Signs

- Enlargement of the neck
- Difficulty swallowing or breathing
- Persistent cough
- Hoarseness or voice changes
- Persistent pain in the front of the neck
- Noticeable lump in the neck

Tips for Prevention

Doctors aren't sure what causes most cases of thyroid cancer, so there's no prevention. Those with an inherited gene mutation for familial medullary thyroid cancer (MTC) may choose to have the thyroid gland removed to prevent a future thyroid cancer. Genetic counseling and testing for the gene are available.

Treatment Options

Several factors determine the best course of treatment including the type and stage of the cancer and the patient's overall health. Thyroid cancer may be treated with surgery, thyroid hormone treatment, radioactive iodine therapy, radiation therapy, chemotherapy, or targeted therapy. Most patients receive a combination of treatments.

Source: American Cancer Society, National Cancer Institute, and Texas Cancer Registry