

# 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. Thyroid lymphoma or sarcoma are very rare.

## Main Types

- **Papillary thyroid cancer:** About **80%** of all thyroid cancers are diagnosed as papillary carcinoma. Although this type can spread to the lymph nodes, papillary cancers typically grow slowly, are highly treatable, and are seldom fatal.
- **Follicular thyroid cancer:** About **10%** of thyroid cancers are diagnosed as follicular carcinoma. It is most common in people without enough iodine in their diet. It does not usually spread to the lymph nodes but can spread to other parts of the body.
- **Medullary thyroid cancer (MTC):** About **4%** of all thyroid cancers are diagnosed as MTC, which forms from "C cells" or parafollicular cells that typically help control calcium levels. It can spread to other body parts before a thyroid nodule is detected. Because it does not take up radioactive iodine, a commonly used treatment for other types of thyroid cancer, treatment for MTC is more difficult and the prognosis not as favorable.
- **Hurthle cell cancer:** About **3%** of thyroid cancers are oxyphil cell (or Hurthle cell) carcinoma. This type of thyroid cancer is more difficult to diagnose and treat and is more likely to spread to lymph nodes.
- **Anaplastic thyroid cancer:** Less than **2%** of all thyroid cancers are anaplastic thyroid cancer. This type is believed to occasionally develop from a papillary or follicular cancer. It can grow and spread quickly and is more difficult to treat.

## Statistics

- In 2023, 43,720 new cases of thyroid cancer are expected to be diagnosed in the United States, with 2,230 deaths.
- In Texas in 2023, an estimated 3,730 new thyroid cancer cases will be diagnosed, with 166 expected deaths
- Approximately 3 out of 4 cases of thyroid cancer occur in women. It is most frequently diagnosed in people ages 20-55.
- The incidence rate of thyroid cancer in the U.S. had been the most rapidly increasing cancer type in the U.S. However, since 2014 it has been decreasing by 2.5% per year, likely due to more conservative diagnostic criteria.

## 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 get too much or do not get enough iodine in their diet have a higher risk.
- **Family History:** Those with a family history of 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 in the front of the neck
- Difficulty swallowing or breathing
- Persistent cough
- Hoarseness or voice changes
- Persistent pain in the front of the neck
- Swelling or lump in the neck

## Tips for Prevention

The causes of most cases of thyroid cancer are unknown, so there is no specific prevention recommendation. Those with an inherited gene mutation for familial medullary thyroid cancer (MTC) may choose to have the thyroid gland surgically removed, to prevent a future thyroid cancer. Genetic counseling and testing can be done to detect the relevant genes.

## 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, targeted therapy, immunotherapy, or palliative medicine. Most patients receive a combination of treatments.

## About Texas Oncology

With more than 530 physicians and 280 locations, Texas Oncology is an independent private practice that sees more than 71,000 new cancer patients each year. Founded in 1986, Texas Oncology provides comprehensive, multi-disciplinary care, and includes Texas Center for Proton Therapy, Texas Breast Specialists, Texas Colon & Rectal Specialists, Texas Oncology Surgical Specialists, Texas Urology Specialists, Texas Infusion and Imaging Center, and Texas Center for Interventional Surgery. Texas Oncology's robust community-based clinical trials and research program has contributed to the development of more than 100 FDA-approved cancer therapies. Learn more at [TexasOncology.com](https://www.TexasOncology.com).

*Sources: American Cancer Society, American Society of Clinical Oncology, American Thyroid Association, National Cancer Institute, and Texas Cancer Registry*



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