



Thyroid Cancer Facts

- Thyroid cancer is the most common endocrine cancer. Thyroid cancer is a cancerous tumor or growth located within the thyroid gland.
- Thyroid cancer occurs in all age groups from children through seniors. About half of people diagnosed are under age 50. About three-quarters are female.
- The American Cancer Society estimates that there will be about 44,280 new cases of thyroid cancer in the U.S. in 2021, compared to 52,890 in 2020. Deaths from thyroid cancer are expected to increase slightly to 2,200 in 2021 from 2,180 in 2020.
- Many patients, especially in the early stages of thyroid cancer, do not experience symptoms. However, as the cancer develops, symptoms can include a lump or nodule in the front of the neck, hoarseness or difficulty speaking, swollen lymph nodes, difficulty swallowing or breathing, and pain in the throat or neck.
- There are several types of thyroid cancer: papillary, follicular, medullary, anaplastic, and variants.

Papillary and **follicular** thyroid carcinomas are referred to as well-differentiated thyroid cancer and account for over 90% of all thyroid cancers. Variants include tall cell, insular, columnar, and Hurthle cell. Their treatment and management are similar. If detected early, most papillary and follicular thyroid cancer can be treated successfully.

Medullary thyroid carcinoma (MTC) accounts for 3-4% of all thyroid cancers. Medullary cancer is easier to treat and control if found before it spreads to other parts of the body. There are two types of medullary thyroid cancer: sporadic and familial. Genetic testing (of the RET proto-oncogene) should be performed in all patients with MTC to determine whether there are genetic changes that predict the development of MTC. In individuals with these genetic changes, removal of the thyroid during childhood has a high probability of being curative.

Anaplastic thyroid carcinoma is the least common and accounts for only 1-2% of all thyroid cancer. This type is difficult to control and treat because it is a very aggressive type of thyroid cancer.

- Treatments for thyroid cancer include surgery, radioactive iodine treatment, external beam radiation therapy, and chemotherapy. In most cases, patients undergo surgery to remove most of the thyroid gland, and are treated with thyroid hormone replacement therapy. For those with papillary and follicular thyroid cancer, the dose of thyroid hormone replacement is often high enough to suppress thyroid stimulating hormone (TSH) below the range that is normal for someone not diagnosed with thyroid cancer, to help prevent the growth of cancer cells while providing essential thyroid hormone to the body.
- Factors associated with thyroid cancer include a family history of thyroid cancer, gender (women have a higher incidence of thyroid cancer), age (the majority of cases occur in people over 40, although thyroid cancer affects all age groups from children through seniors), and prior exposure of the thyroid gland to radiation.
- While the prognosis for most thyroid cancer patients is very good, the rate of recurrence can be up to 30%, and recurrences can occur even decades after the initial diagnosis. Therefore, it is important that patients get regular follow-up examinations to detect whether the cancer has re-emerged. Monitoring should continue throughout the patient's lifetime.
- Periodic follow-up examinations can include a review of the medical history together with selected blood tests appropriate for the type of cancer and stage of treatment (TSH, thyroglobulin, CEA, and calcitonin levels), physical examination, and imaging techniques (ultrasound, radioiodine whole body scan, chest X-ray, CT, MRI, PET, and other tests).