

The most common place that an endocrine cancer will occur is in the thyroid gland. Approximately 1.2% of Americans will be diagnosed with thyroid cancer in their lifetime. Thyroid cancer is three times more common in women than in men, and while it can be diagnosed at any age, most diagnoses will occur in the 40-50s (women) or 60-70s (men). Iodine deficiency and therapeutic radiation exposure in childhood are well established risk factors for thyroid cancer. However, as with most cancers, a specific cause for the great majority of thyroid cancers cannot be identified. Rather it is likely that there are multiple factors which play a part in the development of the cancer.

Most thyroid cancers are described by three major subtypes (SEER Cancer Statistics): papillary (90%), follicular (5%), and medullary (2%). Other rare types of thyroid cancer that make up the remaining 3% include Hurthle cell, anaplastic, and thyroid lymphomas/sarcomas.

A genetic predisposition to thyroid cancer is rare, and the chance for an underlying hereditary risk factor depends on the type of thyroid cancer someone has. Only about 5% of non-medullary thyroid cancers (follicular and papillary) are due to a strong genetic predisposition, including:

- [Familial adenomatous polyposis](#)
- [PTEN Hamartoma Tumor syndrome/Cowden syndrome](#)
- DICER1-related thyroid cancer
- Carney complex
- [Li Fraumeni syndrome](#)

An isolated case of non-medullary thyroid cancer is unlikely to be hereditary unless there are other cancers in the family.

Unlike non-medullary thyroid cancers, as many as 30% of individuals with *medullary* thyroid cancer have a hereditary cause due to [Multiple Endocrine Neoplasia, type 2 \(MEN2\)](#).

Click [here](#) to learn more about scheduling a genetic counseling appointment for questions about hereditary cancer predisposition.