About Metastatic Thyroid Cancer

Thyroid cancer is a cancer that starts in a person’s thyroid gland. Metastatic means cancer cells have spread to other parts of the body.

• The most common types of thyroid cancer are papillary and follicular. Other types include Hurthle cell, medullary, and anaplastic.
• Thyroid cancer may spread to other parts of the body, including lungs, bones, and occasionally the brain.

Thyroid cancer is usually diagnosed at a younger age than most other adult cancers. 13

About Medullary Thyroid Cancer

Medullary thyroid cancer (MTC) accounts for about 4% of thyroid cancers. 6 MTC develops from the C cells of the thyroid gland, which produce calcitonin, a hormone that helps control the amount of calcium in blood. 3

There are two types of MTC: 3

• Sporadic MTC accounts for about 75% of MTC and is not inherited (does not run in families). This cancer occurs mostly in older adults and usually affects only one thyroid lobe.
• Familial MTC accounts for about 25% of MTC and is inherited (runs in families). This cancer often develops during childhood or early adulthood and affects several areas of both thyroid lobes.

What are Metastatic RET-Driven Thyroid Cancers?

Metastatic thyroid cancer can be driven by a gene in a person’s body. One of those genes is RET (rearranged during transfection). 4,5

The two main types of these cancer-promoting RET gene alterations are mutations and fusions. 6,7

• RET mutations are found in about 40% of sporadic MTC and over 90% of familial MTC. 6
• RET fusions can occur in thyroid cancers such as papillary thyroid cancer (PTC), follicular thyroid cancer (FTC), and anaplastic (undifferentiated) thyroid cancer (ATC). 4,7

RET fusions are found in approximately 10%-20% of PTC. 6,8

How Are Genetic Alterations in Cancer Identified?

The best way to know if a cancer has an alteration that can be treated is to talk to a doctor about getting tested for all treatable biomarkers. 8

A biomarker test is a type of genetic test that can tell the doctor a lot about the cancer’s DNA. 9 Certain biomarker tests require a doctor to biopsy the tissue or blood for testing. 10

Knowing what is driving the cancer can help the patient and his or her doctor choose the right treatment. 10