Cancer

Thyroid Cancer

What is thyroid cancer?

Cancer develops when cells grow out of control. Thyroid cancer starts in the thyroid gland, a butterfly-shaped organ in the front part of the neck.

The three main types of thyroid cancer are differentiated, medullary and anaplastic. Most cancers are differentiated, including several subtypes of papillary cancer, follicular cancer and Hurthle cell cancer. Medullary thyroid cancers (MTC) affects C cells in the thyroid gland that produce calcitonin, a hormone that controls the amount of calcium in the blood. Anaplastic, or undifferentiated, thyroid cancer is a rare, hard-to-treat form. There are other less common thyroid cancers such as thyroid lymphoma, thyroid carcinoma and parathyroid cancer, which develops in the four small parathyroid glands attached to the thyroid.

Who gets thyroid cancer?

Thyroid cancer is uncommon and has a very low death rate. About 56,900 people in the United States will develop thyroid cancer and about 2,000 people will die from it in 2017, according to the American Cancer Society. The risk of being diagnosed with thyroid cancer is rising, however, and it is now one of the most rapidly increasing cancers in the United States.

Women are more likely than men to develop thyroid cancer, accounting for nearly three quarters of all cases. Women are also more likely to develop thyroid cancer in their forties and fifties, while men typically do so at age 60 or older.

What are the risk factors for thyroid cancer?

Genetics and family history are risk factors for some types of thyroid cancer. Radiation exposure, including receiving medical radiation for diagnosis or treatment during childhood, increases thyroid cancer risk. Low iodine in the diet is a risk factor in some parts of the world.

What are they symptoms of thyroid cancer?

Any of the following signs and symptoms might mean thyroid cancer is developing:

- A lump in the neck that grows quickly
- Swelling in the neck

- Pain in the front of the neck
- Hoarseness or changes in the voice
- Difficulty swallowing
- Difficulty breathing
- A persistent unexplained cough

How is thyroid cancer diagnosed?

The process of diagnosing thyroid cancer starts with a physical exam and health history. A doctor will feel for lumps in the thyroid and look for enlarged lymph nodes. Blood tests and imaging tests may be done, including ultrasound and radioiodine scans. A biopsy, or small tissue sample, may be taken and examined in the laboratory to see if a lump is cancerous.

How is thyroid cancer treated?

Treatment for thyroid cancer depends on how advanced the cancer is when it is detected, including how large it is and whether it has spread, a process known as metastasis. Thyroid cancer is often curable, especially if detected and treated early.

Surgery: Surgery may be done to remove the entire thyroid (a thyroidectomy) or one lobe of the gland (a lobectomy). Nearby lymph nodes may also be removed.

Radiation: The thyroid gland absorbs most iodine in the body, and radioactive iodine destroys thyroid tumors. External radiation may also be used. Radiation therapy may be used to kill any cancer cells that remain after surgery or to shrink tumors that cannot be surgically removed.

Chemotherapy: Traditional chemotherapy works by killing fast-growing cells, including cancer cells. It can also destroy rapidly dividing healthy cells, such as those in the gut or hair follicles, leading to side effects including nausea and hair loss.

Thyroid hormone therapy: After surgical removal or destruction of the thyroid, replacement thyroid hormone pills are given to maintain important functions such as regulating metabolism. Higher doses of thyroid hormones can help stop the growth of cancer cells that remain after surgery.

Targeted therapy: Targeted drugs work against cancers with specific characteristics. For example, they may interfere with signaling pathways that regulate cell growth or stimulate production of new blood vessels. Targeted treatment is often better tolerated than chemotherapy, but cancer may develop resistance over time.

Immunotherapy: The newest type of treatment helps the immune system fight cancer. For example, some tumors can turn off immune responses against them, and drugs known as checkpoint inhibitors can restore T cells' ability to recognize and destroy cancer cells. Immunotherapy is now being tested for some types of advanced thyroid cancer.

For more information about thyroid cancer, please visit our sister site Cancer Health.

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