

Thyroid Cancer

Anaplastic Thyroid Cancer

Definitions

Thyroid gland: An organ located at the base of the throat that makes hormones affecting heart rate, blood pressure, body temperature and weight.

Anaplastic: Pertaining to rapidly dividing, highly abnormal cancer cells.

Goiter: Non-cancerous enlargement of the thyroid gland.

Nodules: Cellular growths in the thyroid gland. These growths are usually benign but may be cancerous.

Pathologist: A physician who examines tissues and fluids to diagnose disease in order to assist in making treatment decisions.

What is anaplastic thyroid cancer?

About 44,670 Americans are diagnosed with thyroid cancer each year, according to the National Cancer Institute. Thyroid cancer incidence is increasing at a faster rate among American men and women than any other type of cancer.

Anaplastic thyroid cancer makes up about 2 percent of these cases. This type of cancer grows and spreads very quickly. For this reason, it is important to find the best care available. Patients receiving excellent care have achieved long-term survival.

Who is likely to have anaplastic thyroid cancer?

Men are twice as likely than women to have anaplastic thyroid cancer. Most cases afflict individuals over age 65. Potential risk factors include having a long-standing (years to decades) benign thyroid nodule, goiter, or other abnormal thyroid lesion.

What characterizes anaplastic thyroid cancer?

Anaplastic thyroid cancer often arises from long-standing nodules in the thyroid. Often, patients with anaplastic thyroid cancer experience rapid and marked enlargement of the lesion resulting in a large neck mass and/or airway obstruction. If a nodule becomes cancerous, it can become life threatening by spreading via blood vessels to lymph nodes or nearby bones and tissues.

Nodules can be detected when your primary care physician checks your neck and throat and feels the thyroid for lumps. Otherwise, early thyroid cancer does not have symptoms. If the cancer grows, symptoms may include a lump in the front of the neck, hoarseness or voice changes, swollen lymph nodes in the neck, trouble swallowing or breathing, or throat or neck pain.

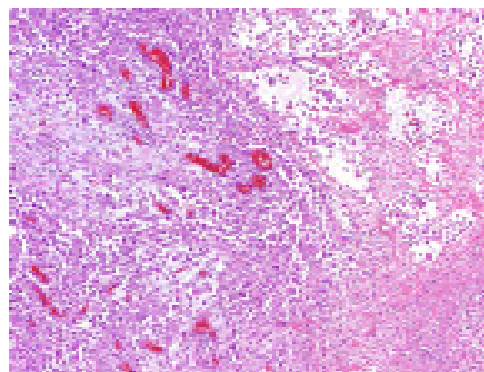
How does the pathologist make the diagnosis?

If your symptoms suggest the possibility of thyroid cancer, your primary care physician will order a **blood test** that the pathologist will check for abnormal levels of **thyroid-stimulating hormone (TSH)**. Too much or too little TSH shows that the thyroid is not working well.

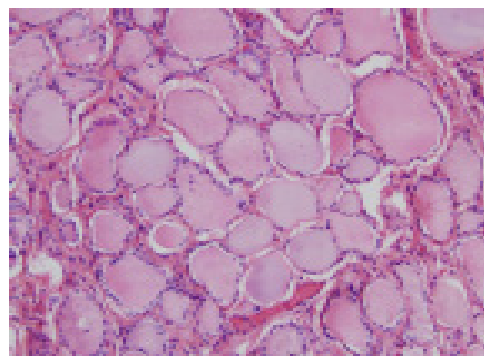
What else does the pathologist look for?

Your primary care physician may also order an **ultrasound and thyroid scan**, which are reviewed by radiologists. The removal of cells by **fine-needle aspiration (FNA)** or tissue by a **biopsy** are sent to the pathologist for examination. An ultrasound or thyroid scan can create images of thyroid nodules that the radiologist can view for signs of cancer. An FNA or a biopsy, however, are the only potential sure ways to diagnose cancer. The pathologist checks the sampled cells or a biopsy tissue removed either with a fine needle or through a neck incision during a surgical procedure.

(continued on next page)



Anaplastic thyroid cancer.



Normal thyroid cells.

What kinds of questions should I ask my doctors?

Ask any question you want. There are no questions you should be reluctant to ask. Here are a few to consider:

- Please describe the type of cancer I have and what treatment options are available.
- What is the stage of my cancer?
- What are the chances for full remission?
- What treatment options do you recommend? Why do you believe these are the best treatments?
- What are the pros and cons of these treatment options?
- What are the side effects?
- Is your medical team experienced in treating the type of cancer I have?
- Can you provide me with information about the physicians and others on the medical team?
- If I want a second opinion, could you provide me with the names of physicians and/or institutions that you would recommend?

(continued from previous page)

What is meant by the stage of the cancer?

Your pathologist and primary care doctor determine the cancer's **stage** to plan the best treatment. This process involves determining the size of the cancerous nodule, whether or not the cancer has spread, and if so, to what parts of the body. Thyroid cancer spreads most often to the lymph nodes, lungs, and bones. Stage 1 cancers are small and confined to the thyroid, and stage 4 tumors have spread well beyond the thyroid. Stages 2 and 3 describe conditions in between these two extremes.

Staging may involve tests including **ultrasound, CT or MRI scans, chest x-rays, or whole body scans**. These tests enable the pathologist to determine where the cancer has spread and its stage.

How do doctors determine what treatment will be necessary?

Your treatment will depend on the size of the nodule, your age, and whether or not the cancer has spread. The pathologist consults with your primary care physician or specialist. Together, using their combined experience and knowledge, they determine treatment options most appropriate for your condition. It's important to learn as much as you can about your treatment options and make the decision that's right for you.

What kinds of treatments are available for anaplastic thyroid cancer?

Anaplastic thyroid cancer may be treated with **surgery, external radiation therapy, or chemotherapy**. Many patients receive a combination of these treatments.

Surgery and external radiation therapy are **local therapies** that remove or destroy cancer in the thyroid. When the cancer has spread beyond the thyroid, these two therapies can control the disease in the thyroid.

Anaplastic thyroid cancer patients receive a **total thyroidectomy** (removal of the thyroid). A surgeon also removes all fatty tissue and lymph nodes in the central neck area near the tumor. Because this cancer often spreads quickly to the windpipe, part of the airway may be surgically removed and a **tracheostomy** or plastic tube inserted to maintain breathing.

External radiation therapy can be used before or after surgery; this therapy uses high-energy beams projected from outside the body to shrink the tumor or destroy any remaining cancer cells.

Chemotherapy is a **systemic therapy** that is delivered through the bloodstream to destroy or stop the progression of cancer cells present throughout the body. This therapy also can reduce pain.

Because anaplastic thyroid cancer can be a difficult cancer to treat, you may consider participating in a **clinical trial** of new treatments for anaplastic thyroid cancer. A list of these trials may be found at www.cancer.gov/clinicaltrials. These treatments are highly experimental in nature but may be a potential option for advanced cancers. Some trials may involve biologic therapy, which uses the natural defenses of the immune system to fight cancer.

Any treatment for anaplastic thyroid cancer will likely cause side effects and alter your normal activities. Ask your primary care physician or specialist to explain the effects of your treatment thoroughly so that you know what to expect. Because your treatment will remove your thyroid, you will be required to take thyroid hormone pills for the rest of your life to replace the natural thyroid hormone. Because the surgeon may remove the parathyroid glands, located behind the thyroid, you may need to take calcium and vitamin D supplements for the rest of your life.

Follow-up care is very important because thyroid cancer comes back in up to 30 percent of all cases. Also, if you receive external radiation therapy, you have an increased chance of developing other cancers later in your life. You should receive regular blood tests to check your levels of TSH and **thyroglobulin** (thyroid hormone stored in the thyroid). Your physicians also may recommend repeating some of the diagnostic and staging tests to see if the cancer has returned.

For more information, go to www.cancer.gov (National Cancer Institute), www.medicinenet.com (owned and operated by Web MD), or www.thyca.org (Thyroid Cancer Survivors' Association). Type the keywords **thyroid cancer** into the search box.