

How to treat a thyroid nodule:

Treatment of a thyroid nodule depends upon the specific cause and/or diagnosis of the thyroid nodule. If the nodule is malignant (cancerous) or atypical/suspicious, surgical removal of the nodule will be recommended. If the nodule is benign, the nodule should be monitored and re-evaluated by ultrasound every 6 to 12 months to be sure the formation does not grow or develop worrisome features.

If the nodule has caused or been caused by any thyroid disorders such as hyperthyroidism or hypothyroidism, treatment of the disorder will continue along with monitoring of the nodule.

Genetic Testing for Thyroid Nodules:

Genetic testing is a new modality that might help diagnose thyroid cancer in some cases where the biopsy is not clear. This test can improve diagnostic accuracy before surgery, therefore preventing unnecessary surgeries.

Risk Factors for cancer:

Although most thyroid nodules are diagnosed as benign, 5-7% are malignant. You are at a higher risk for thyroid cancer if you have any of the following:

- A family history of thyroid nodules and/or thyroid cancer
- A history of Hashimoto's thyroiditis
- A history of head and/or neck radiation
- Over 40 years of age
- Worrisome sonographic features of thyroid nodule

Things to Remember:

- Most thyroid nodules are benign and do not require surgery.
- Thyroid nodule biopsy is presently the best method to diagnose thyroid cancer.
- Ultrasound features of thyroid nodules are important factors in assessing the risk for thyroid cancer.
- About 2% of malignant nodules cannot be diagnosed with thyroid nodule biopsy due to lack of classic features of malignancy.
- Thyroid nodule biopsy can miss cancer.

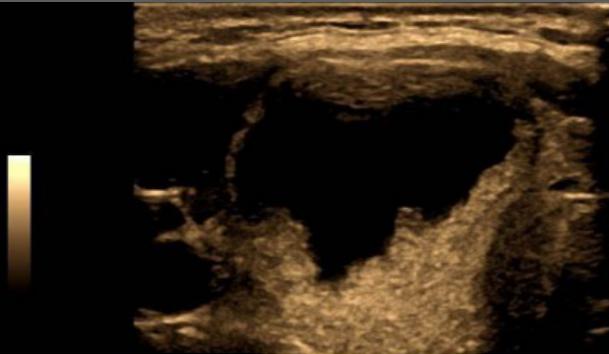
For more information on Thyroid Nodules and other thyroid issues, please see our websites at www.wilmingtonendo.com & www.3DTHYROID.com.

THYROID NODULE INFORMATION

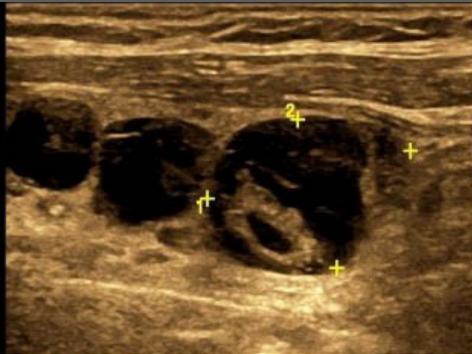


Your Guide to Thyroid Nodules

Wilmington Endocrinology
1717 Shipyard Blvd.
Wilmington, NC 28403
P: (910) 254 - 9464
F: (910) 254 - 3474



Cystic Thyroid Nodule



Complex Thyroid Nodules



Solid Thyroid Nodule

What is a thyroid nodule?

A thyroid nodule is a lump or growth that has been formed within your thyroid—a butterfly-shaped gland located at the base of the neck. This lump is formed from an abnormal growth of thyroid cells. There can be one or multiple nodule formations. While most nodule formations are diagnosed as benign (noncancerous), a small percentage can be malignant (cancerous). The best way to be sure of a diagnosis is to have your thyroid evaluated by a specialist at the earliest stage possible.

What are the symptoms?

In most cases, thyroid nodules do not cause any symptoms. Thyroid tests such as TSH will usually read as normal, despite the nodule formation or presence of cancer. Although most nodules cannot be felt, some can be found during routine physical examinations by your doctor. If the nodule has become large, it can be noticed by the individual while looking in a mirror or by simply feeling a lump in his or her neck where the thyroid is located. Difficulty swallowing, hoarseness, and a choking sensation may occur in patients with larger nodules.

Diagnosis Procedure

- Thyroid ultrasound to assess the size of the thyroid gland and features of any thyroid nodule(s).
- A blood test to check for thyroid hormone level, thyroid antibodies, and calcitonin.
- Fine needle aspiration biopsy to check nodules for cancer.
- A thyroid scan, only if the thyroid gland is hyperactive (overproducing thyroid hormone).

Thyroid Ultrasound:

Thyroid ultrasound is a vital tool used for nodule evaluation to help identify suspicious vs. benign nodules. An ultrasound will produce images of the thyroid by bouncing high-frequency sound waves off of the gland. It is not radiation. It can show what the nodules look like, the size of the nodules, and their location within the thyroid gland. There are specific characteristics that can be seen with an ultrasound machine including:

- If the nodule is solid, cystic (fluid-filled), or complex (both solid and cystic); hypoechoic, isoechoic, or hyperechoic; and
- If the nodule shows calcification, irregular shape, or vascularity.

These features help the doctor assess risk for thyroid malignancy. The sonographic features associated with malignant nodules are: hypoechoic (dark), microcalcifications, irregular shape and margins, and bloodflow within the nodule. Sonographic features associated with benign nodules are: hyperechoic (bright), macro or dense calcifications, cystic thyroid nodules, decreased size of nodule over time.

Thyroid Nodule Biopsy:

A fine needle aspiration biopsy (FNAB) is a common and simple procedure used to sample thyroid nodules and determine whether they are cancerous. The procedure is done in the office under ultrasound guidance to ensure sample accuracy. A very fine needle is used to obtain a tissue sample from the nodule in question, and then samples are sent to pathology for evaluation. The results are usually available within one week. Results will indicate whether the nodule is benign, non-diagnostic, atypical/suspicious, or malignant. While the vast majority of thyroid nodules are benign, small percentages do contain thyroid cancer. FNA biopsy is the best way to determine what your course of action should be. For more information on FNA biopsy, see the FNA Biopsy brochure.