Thyroid nodules

Lumps in the thyroid gland.

What is a thyroid nodule

A thyroid nodule is a solid or fluid-filled lump that forms within the thyroid gland at the front of your neck. Most nodules are harmless and do not change how the thyroid works.

How common is it

Thyroid nodules are common, particularly with increasing age, and ultrasound detects many that cannot be felt. Most are benign. Your own risk is assessed from the history, ultrasound and, where needed, a needle sample.

What are the symptoms

Most nodules cause no symptoms and are found during a routine exam or scan. Possible symptoms include:

- A painless lump in the neck.
- A feeling of fullness or pressure in the neck.
- Difficulty swallowing or a 'lump in the throat' sensation.
- Hoarseness (rare).
- Some nodules make excess thyroid hormone, causing symptoms such as palpitations or weight loss. An underactive thyroid may coexist but is not usually caused by a nodule itself.

What causes thyroid nodules

Causes vary and include benign (non-cancerous) overgrowth of thyroid tissue, fluid-filled cysts, inflammation (thyroiditis), iodine deficiency, and—less commonly—thyroid cancer.

How is a nodule assessed

Your doctor may recommend:

- Blood tests to check thyroid hormone levels.
- Ultrasound scan to look at the size and appearance of the nodule.
- Fine-needle aspiration (FNA) may be advised according to the ultrasound appearance and size. Not every nodule needs a needle sample.
- Occasionally, a CT, MRI, or radioiodine scan.

What is the risk of cancer

Most nodules are benign. Ultrasound features and biopsy results help decide whether further surgery or follow-up is needed.

What are the treatment options

Treatment depends on the test results:

- Observation: some reassuring nodules need no further tests, while others need repeat ultrasound or sampling. Your clinician will explain your follow-up plan.
- Thyroid hormone tablets are used if the thyroid is underactive; they are not routinely recommended simply to shrink a benign nodule.
- Radiofrequency or laser ablation for selected benign nodules causing symptoms.

- Surgery (partial or total thyroid removal) if the nodule is suspicious, confirmed cancer, or causing troublesome symptoms.
- Radioiodine therapy for certain kinds of overactive nodules or thyroid cancers.

Self-care and monitoring

- Attend follow-up appointments and ultrasound scans as advised.
- Report any rapid growth, pain, or new swallowing/voice changes to your doctor.
- Eat a balanced diet. Do not start iodine or kelp supplements to treat a nodule; excess iodine can disrupt thyroid function.
- Stop smoking and maintain a healthy weight.

When to seek medical advice

Arrange prompt assessment for rapid growth, new persistent hoarseness, or worsening swallowing. Do not wait for a scheduled follow-up if these develop.

Get urgent help for sudden painful neck swelling or inability to swallow fluids. Call 999 for severe breathing difficulty.

About this information

This leaflet explains the condition and common treatment choices. Your care team will advise what is suitable for you. If you have an operation, follow the specific preparation and aftercare instructions provided by your hospital.

Further information

European Thyroid Association 2023 nodule guideline

American Thyroid Association iodine statement