Anatomy & Physiology

The thyroid gland is located anteriorly (at the front) in the neck, positioned in front of the windpipe (trachea). It consists of two lobes connected by a small section called the isthmus, which lies over the windpipe. At ADOM, we emphasize the critical role of the thyroid in maintaining overall health and the symptoms that can occur when it malfunctions. Common signs of thyroid issues include fatigue, heart palpitations, joint pain, and problems with skin or hair. We also highlight the potential risks of dental X-rays to the thyroid, brain, tongue, and surrounding tissues, raising awareness about minimizing unnecessary exposure.

The Nussbaumer Method: A fast, 10-second ultrasound screening that evaluates both thyroid lobes and the isthmus. This technique is a core component of our free course.

Criteria

ADOM CRITERIA | Thyroid Tumor Grading

- Grade I: Fluid-filled, benign (simple to septated).
- Grade II: Solid, no blood flow, inactive.
- Grade III: Solid with blood flow, active.
- Grade IV: Solid with blood flow, systemic potential.
- Grade V: Solid, irregular, with calcifications, advanced malignancy likely.
- Grade VI: Solid, systemic spread, lymph node involvement, metastatic malignancy.

Scan QR Code for more about ADOM Thyroid Tumor Grading

Why ADOM Criteria Makes a Difference

Grades IV, V, and VI, often dismissed due to normal labs and size criteria, can be critically assessed using ADOM ultrasound when symptomatic.

ADOM

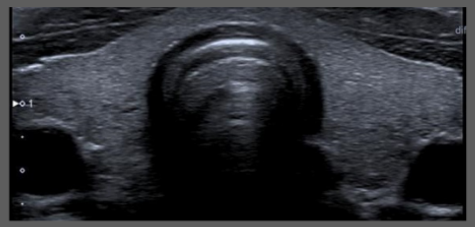
Introduction to Diagnosis with Ultrasound

Disclaimer: This guide is for ultrasound awareness and educational purposes only. It is not a substitute for medical diagnosis or advice. Consult a licensed medical professional for evaluation and treatment.

Thyroid

Thyroid Ultrasound

The Nussbaumer Method - Thyroid



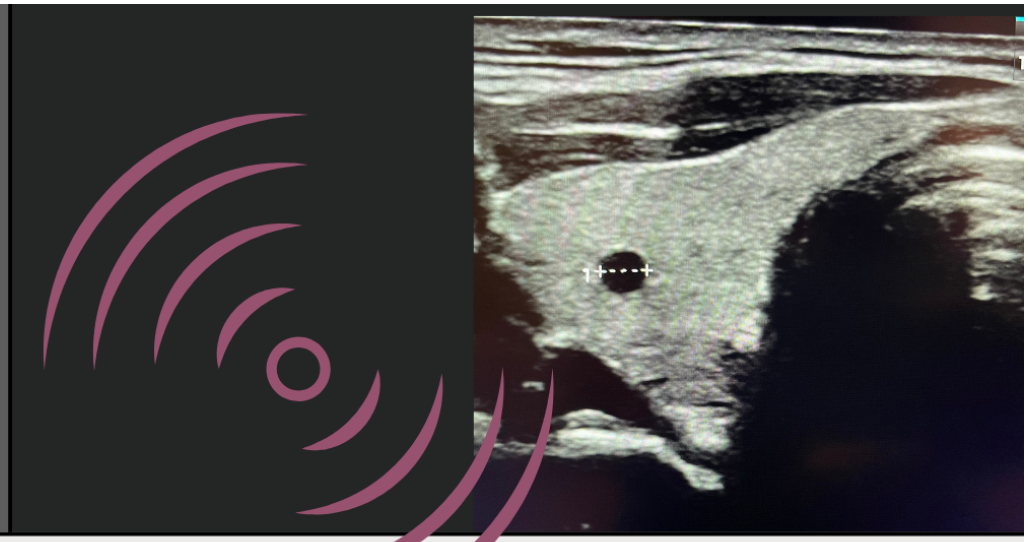
In a transverse plane, rest the linear probe on top of your clavicle (collarbone). You should see the cross sectional carotid, looks like a black circle, in the center of the screen.

Medial (towards the middle), you will see a lighter gray tissue. This is the thyroid lobe. With light pressure, place the transducer just above the center of the trachea. You will be able to see the isthmus and both lobes of the thyroid. This is a good view to get "the big picture".

Lobe Scan Goal: In 10 seconds, from the clavicle, gently glide the transducer towards the jaw, keeping the tissue in the center with the circle just lateral (away from) the center until you've swept through the superior (upper) portion to the inferior (lower) portion of the thyroid on the side you are scanning.

Learn more about the thyroid

#adomacademy



Pathology

Before we pick up the ultrasound probe, we need to understand what we might see.

When examining the thyroid we assess for:

- **Tumor size,** although not a determinant of effects on the human body.
- **Thyroid labs,** although not a determinant of the effects on the human body due to the systemic nature of T3 and T4 .
- **Enlarged Size:** One or both thyroid lobes may appear enlarged.
- **Decreased Size:** One or both thyroid lobes may be reduced in size.
- **Cysts & Tumors:** Common findings.

(Ask ADOM what the term "Goiter" means and why we should stop using it.