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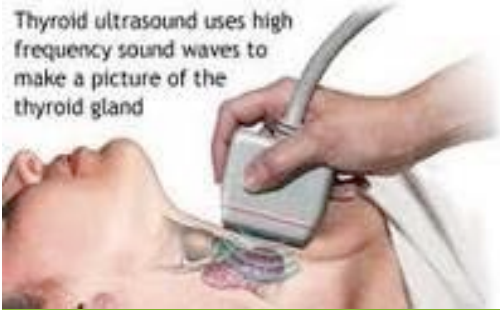
Diagnosis

Diagnosing the problems with your thyroid gland may involve these tests:

-TSH, T₃ and T₄ Blood Test: measures the levels of these hormones in the blood

-Ultrasound

Thyroid ultrasound uses high frequency sound waves to make a picture of the thyroid gland



-Fine Needle Aspiration Biopsy: using a small diameter needle to take samples of cells and tissue out of the thyroid. Typically performed with ultrasound guidance.

RESOURCES

www.uptodate.com

Ahn, Sung Soo; et al. Biopsy of Thyroid Nodules: Comparison of the Three Sets of Guidelines. *AJR*: 194:31-37, January 2010.

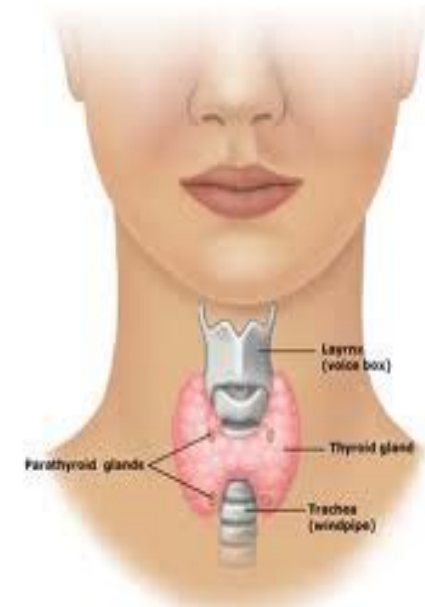
Ginat, DT et al, 2010). Pearls and pitfalls of thyroid nodule sonography and fine-needle aspiration. *Ultrasound Quarterly*, 26(3),

More Information:

<http://www.mayoclinic.com/health/DiseasesIndex/DiseasesIndex/METHOD=displayAlphaList&LISTTYPE=mcDisease&LETTER=t>

Thyroid problems are listed

Prepared by Dan
Freeman MS3

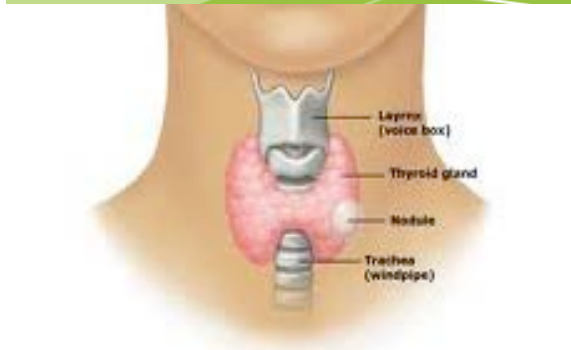
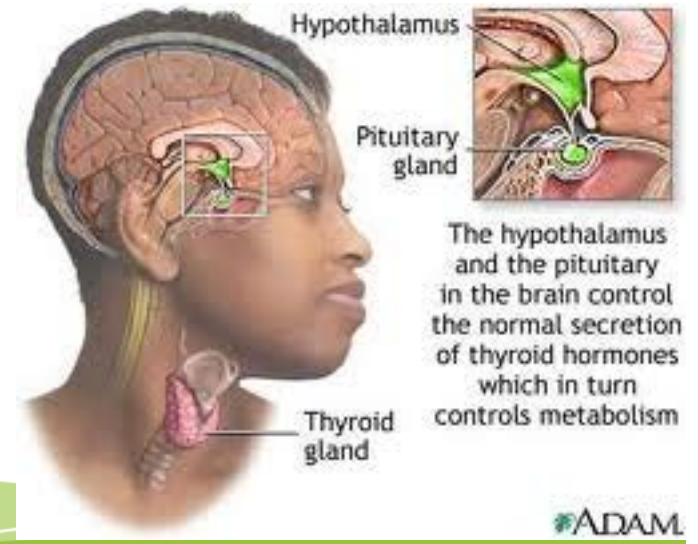


Thyroid

A brief guide to thyroid related problems, diagnosis, and treatment

What is the Thyroid?

The thyroid is a gland located in the neck on the front (anterior) of the windpipe (trachea) that is responsible for the release of the thyroid hormones, T₃ and T₄. These hormones are released with stimulation from the pituitary gland (seen right) by thyroid secreting hormone (TSH). T₃ and T₄ regulate or influence numerous processes in the body, primarily metabolism and growth. The thyroid gland also houses the parathyroid glands. These release parathyroid hormone, which is responsible for bone development and calcium regulation in the body.



Thyroid Problems

Hyperthyroidism: Over activity of the thyroid gland, either by over stimulation (by TSH or immune system) or over production .

Symptoms: heat intolerance, weight loss, racing or irregularly beating heart, nervousness, insomnia, and tremors.

Treatments: medications methimazole, propylthiouracil , beta blockers, steroids, radioactive ablation, or surgical removal,

Hypothyroidism: Under activity of the thyroid gland, under stimulation or underproduction of thyroid hormones, typically due to low iodine, dysfunctional gland, or immune system destruction.

Symptoms: Weight gain, lethargy, cold intolerance, depression, muscle aches, and hoarseness.

Treatment: Levothyroxine—replacement thyroid

hormone

Thyroid nodules: Abnormal enlargement or multiplication of cells of the thyroid gland. Can be caused by low iodine, hypothyroidism, radiation to neck, fluid filled cyst, inflammation and thyroid cancers.

Symptoms: palpable, swelling, difficulty swallowing, hoarseness, sudden weight loss, and enlarged lymph nodes of neck and jaw.

Treatment: dependent on the cause of the nodules. Most thyroid nodules are benign (not harmful)

Thyroiditis: inflammation of the thyroid gland due to infection, dysfunction, over / under stimulation, or drug induced (amiodarone, interferon, etc)

Symptoms: same as hyper or hypothyroid disorders

Treatment is dependent on cause. Can include treatments of hyper /hypothyroid, steroids, or discontinuing medications

