

# Where's My Thyroid Gland?

Ahmed Shalloof 2<sup>nd</sup> year dentistry student Libyan International Medical University



#### Introduction

The thyroid gland is a butterfly-shaped organ located in the base of your neck. It releases hormones that control metabolism—the way your body uses energy. The thyroid's hormones regulate vital body functions.

The thyroid gland is about 2-inches long and lies in front of your throat below the prominence of thyroid cartilage sometimes called the Adam's apple.

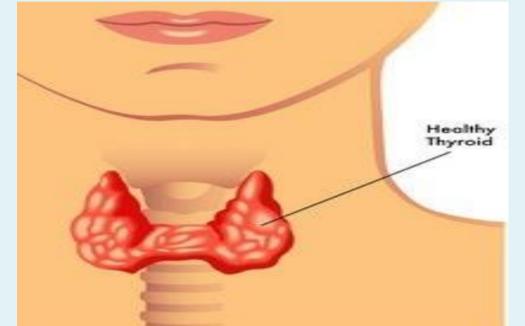
The thyroid gland is the first of the body's endocrine glands to develop, on

approximately the 24th day of gestation.

In some Embryogenesis cases,

thyroid gland will not develop normally

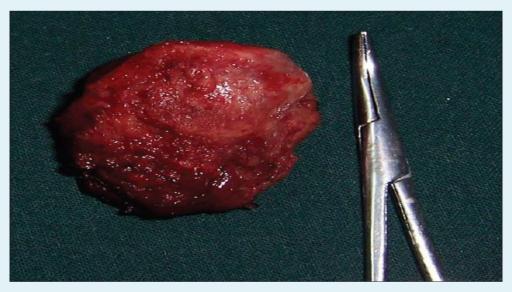
like in people with lingual thyroid disease (1)



## What's Lingual thyroid?

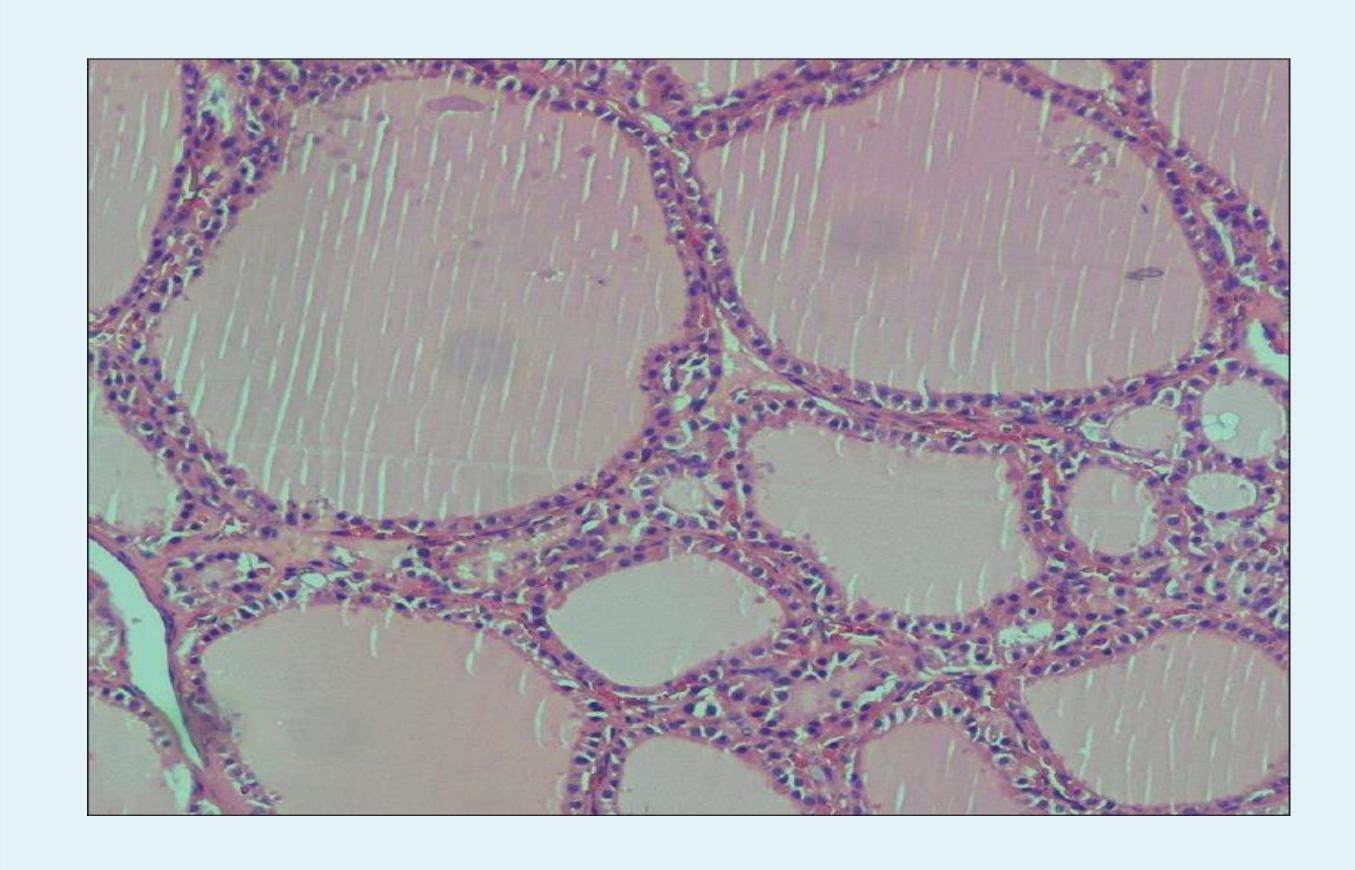
Lingual thyroid is a rare clinical entity of the oropharyngeal region caused by failure in descendence of thyroid gland to its normal position during embryogenesis. Although lingual thyroid is an accepted terminology, the term "ectopia" may be used better to describe those general conditions where thyroid tissues are seen in places other than

tongue.(2)





# Histopathology

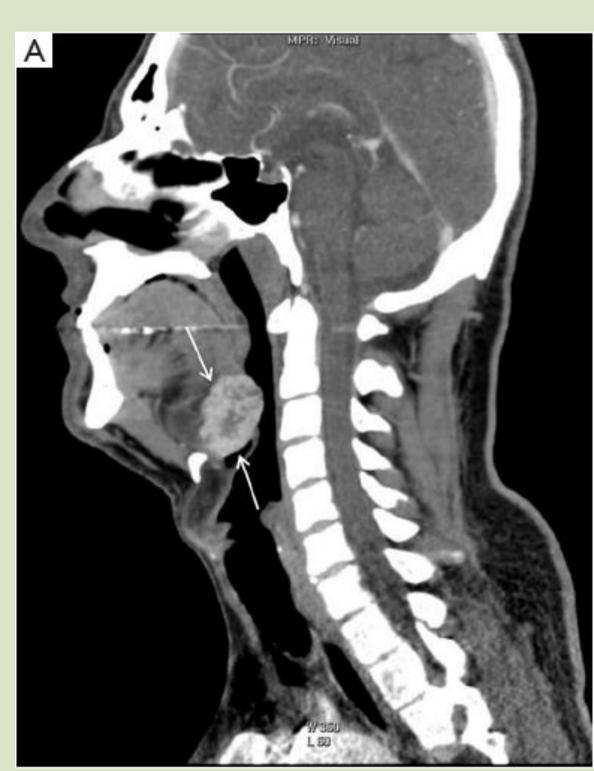


## Clinical presentation

Many patients are asymptomatic and the diagnosis is made incidentally either as a result of imaging the tongue or attempting to image the thyroid and noting that it is absent.

In symptomatic patients the lingual mass may result in dysphagia, bleeding from mucosal ulceration, or even airway obstruction (more common in infants).

Direct examination may reveal a nodular red mass of variable size, ranging from a few millimetres to 3-4 cm. (3)









## **Symptoms**

Most ectopic thyroids are asymptomatic; instead, patients complain from some upper airway problems such as foreign body sensation, progressive dysphagia to solid foods, odynophagia, hoarseness, hot potato voice, bleeding and dyspnea. Some patients have difficulty in breathing or snoring on their back position. Although symptoms grow very gradually, some patients may experience acute onset of obstructive airway symptoms. (3) (4)

#### **Treatment**

Treatment modalities employed in lingual thyroid depends on factors such as a general condition of patient, size, and degree of discomfort. Euthyroid patients and asymptomatic patients are followed-up regularly without any treatment.

Supplemental thyroxine should be given in symptomatic hypothyroid patients. (3)

#### Conclusion

Lingual thyroid is a rare anomaly representing faulty migration of normal thyroid gland. The exact pathogenesis of this ectopic is not known. It is 7 times higher in females.

Dysphagia and dysphonia are common presenting symptoms. Thorough head and neck examination with special attention to base of tongue is essential.

### References

- 1. Adams AC, Astapova I, Fisher FM, Badman MK, Kurgansky KE, Flier JS, Hollenberg AN, Maratos-Flier E. Thyroid hormone regulates hepatic expression of fibroblast growth factor 21 in a PPARalpha-dependent manner. J Biol Chem 285: 14078–14082, 2010.
- 2. Kumar LKS, Kurien NM, Jacob MM, Menon PV, Khalam SA. Advances in pediatrics. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4555932/. Published 2015.
- 3. Hickman W. Congenital tumour of the base of the tongue passing down the epiglottis on the larynx and causing death by suffocation sixteen hours after death (sic.) Trans Path Soc Lond. 1869;20:160.
- 4. Douglas PS, Baker AW. Lingual thyroid. Br J Oral Maxillofac Surg. 1994;32:123-