

Mackay Medical College Department of Medicine  
Clinical Skills



# Physical examination in Thyroid and Neck Lymph Nodes

馬偕紀念醫院內分泌暨新陳代謝科

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# Overview

Part. I

**Thyroid examinations**

Part. II

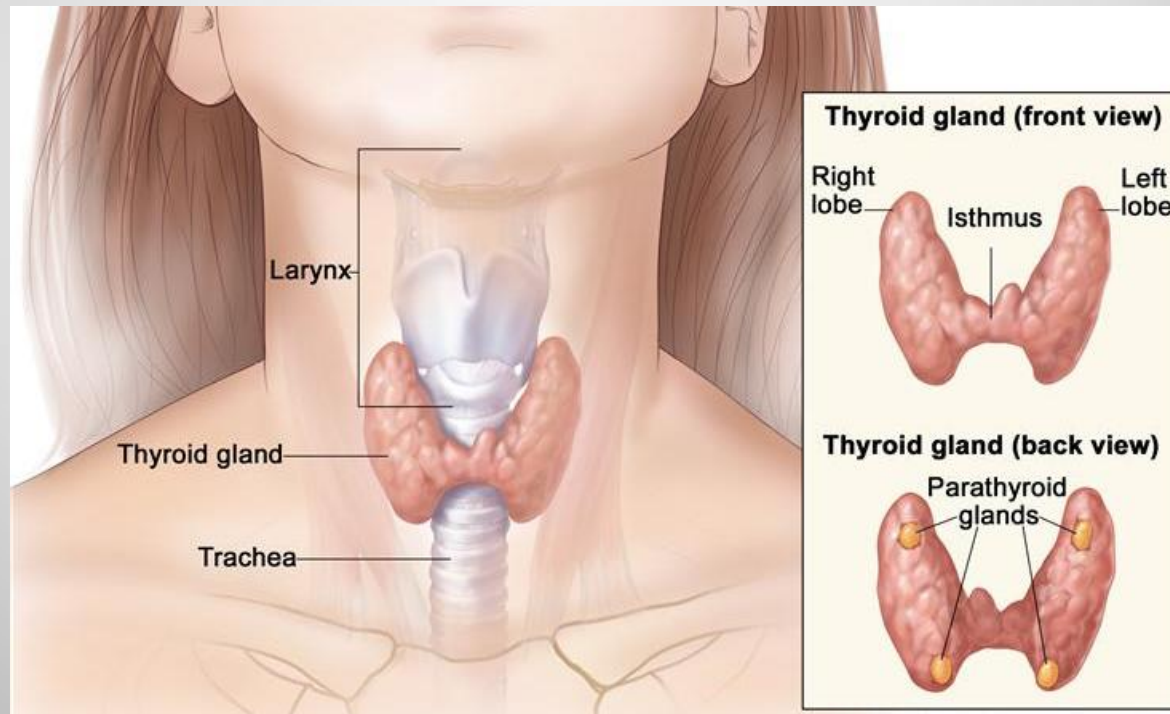
**Neck lymph nodes examinations**

Part. III

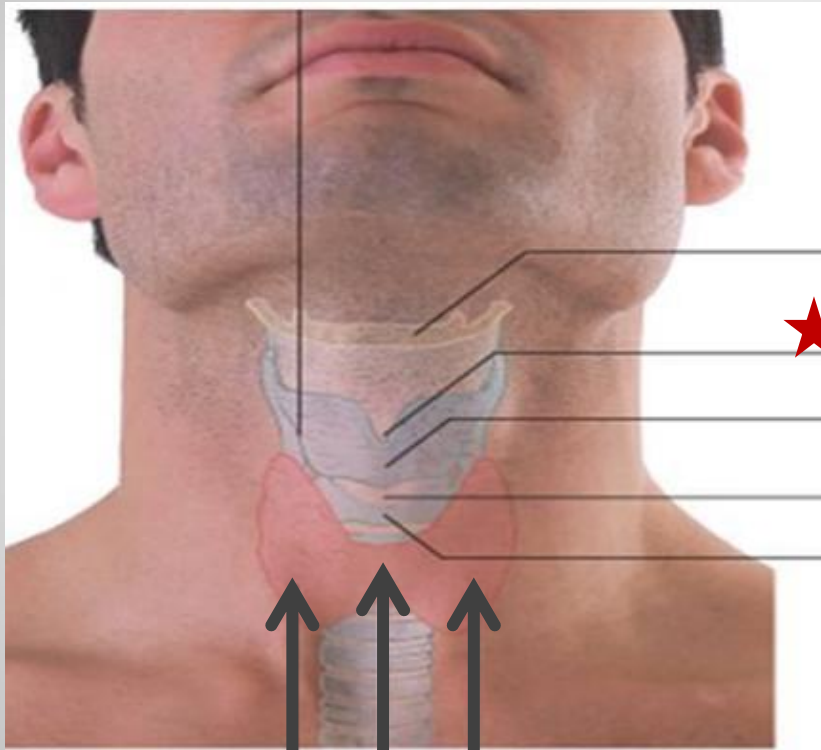
**Pemberton's sign**

# Thyroid Anatomy

- Greek *thyreos* (**shield**) plus *eidos* (**form**)
- The normal thyroid is **12–20 g**, highly vascular, and soft in consistency



# Thyroid Inspection



Hyoid cartilage

★ Superior thyroid notch

Thyroid cartilage

Median crico-thyroid ligament

Cricoid cartilage

Left lobe of thyroid

Right lobe of thyroid

Isthmus of thyroid

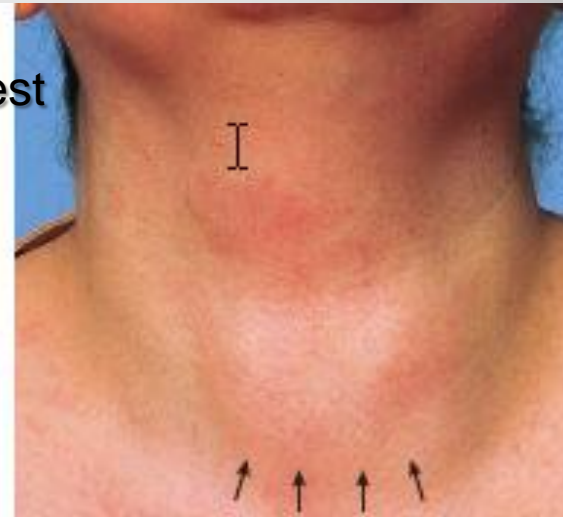
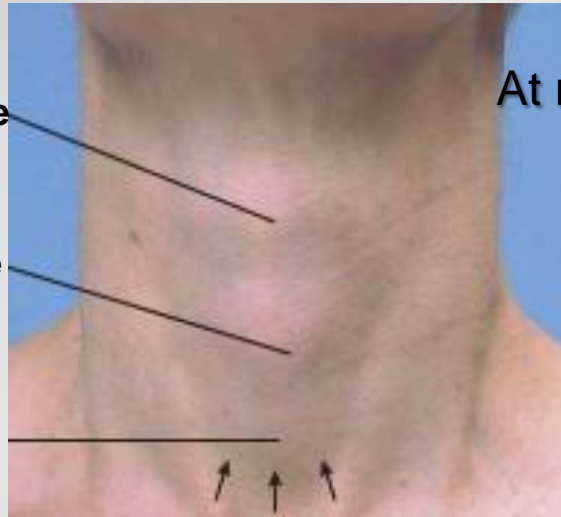
# Thyroid Inspection

Thyroid cartilage

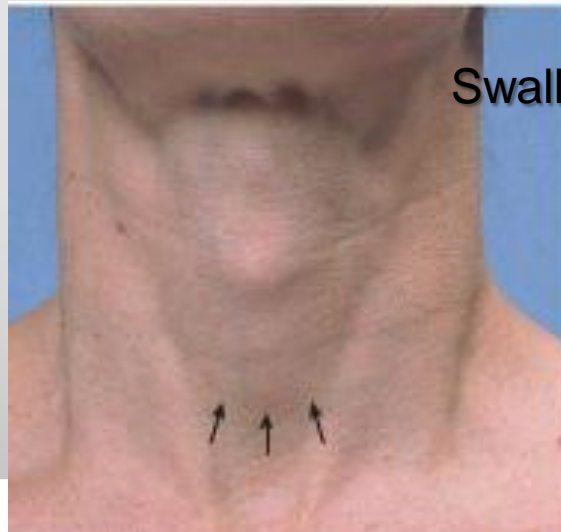
Cricoid cartilage

Thyroid

At rest



Swallowing



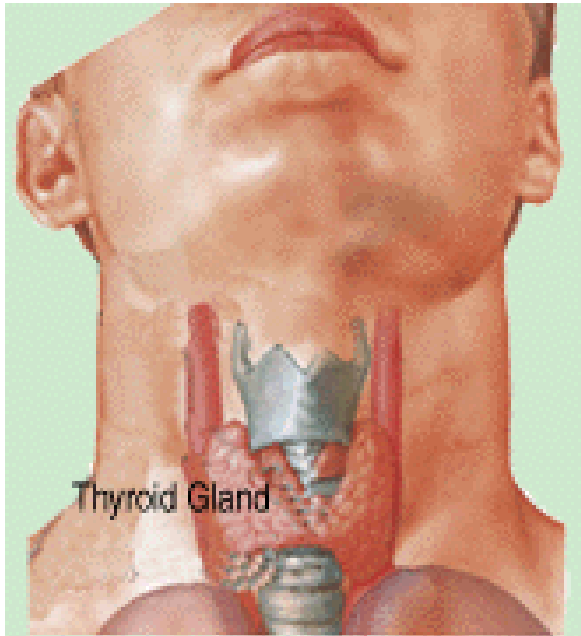
# Thyroid Inspection

Goiter Grading by WHO	Description
Grade 0	no goiter
Grade I	goiter detectable only by <b>palpation</b> or visible when neck <b>fully extended</b>
Grade II	goiter <b>visible</b> when neck in <b>natural position</b>
Grade III	very large goiter <b>visible</b> from a considerable <b>distance</b> (非常大)
Grade IV	monstrous goiter (異常大)

**Extended neck can be inspected for:  
Asymmetry? Scars? Masses?**

★ **The normal thyroid is **barely visible****

# Palpate the Thyroid Gland



When **swallowing**, thyroid moves beneath the examiner's fingers.



Anterior approach



Posterior approach

# Anterior approach for the palpation of the thyroid



- Examiner and the patient sit face to face
- Use left hand to displace the larynx to the left
- During swallowing, the left thyroid is palpated by the examiner's right thumb



# Posterior approach for the palpation of the thyroid



- Examiner stands behind the patient
- Use right hand to push trachea to the left
- The patient is asked to swallow while the examiner's left hand roll over the thyroid cartilage and feels for the thyroid against the right SCM muscle

# Thyroid Examination

## *Subject Steps*



Wash your hands



Observe the neck



Inspect for tremor in the hands



Feel the pulse



Observe the neck as the patient drinks



Palpate the thyroid gland



Examine the cervical lymph nodes



Auscultate the thyroid

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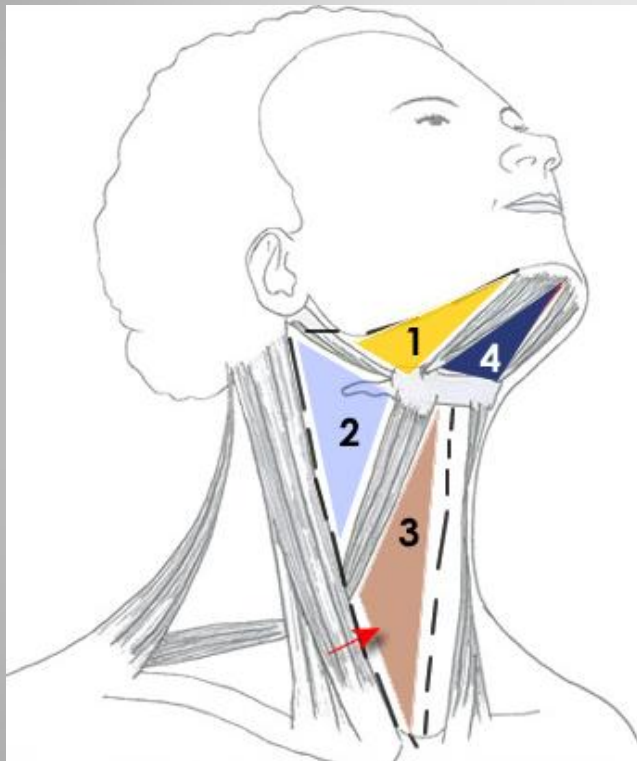
Part. III

**Pemberton's sign**

**The thyroid examination is not complete without assessment for lymphadenopathy in the supraclavicular and cervical regions of the neck.**

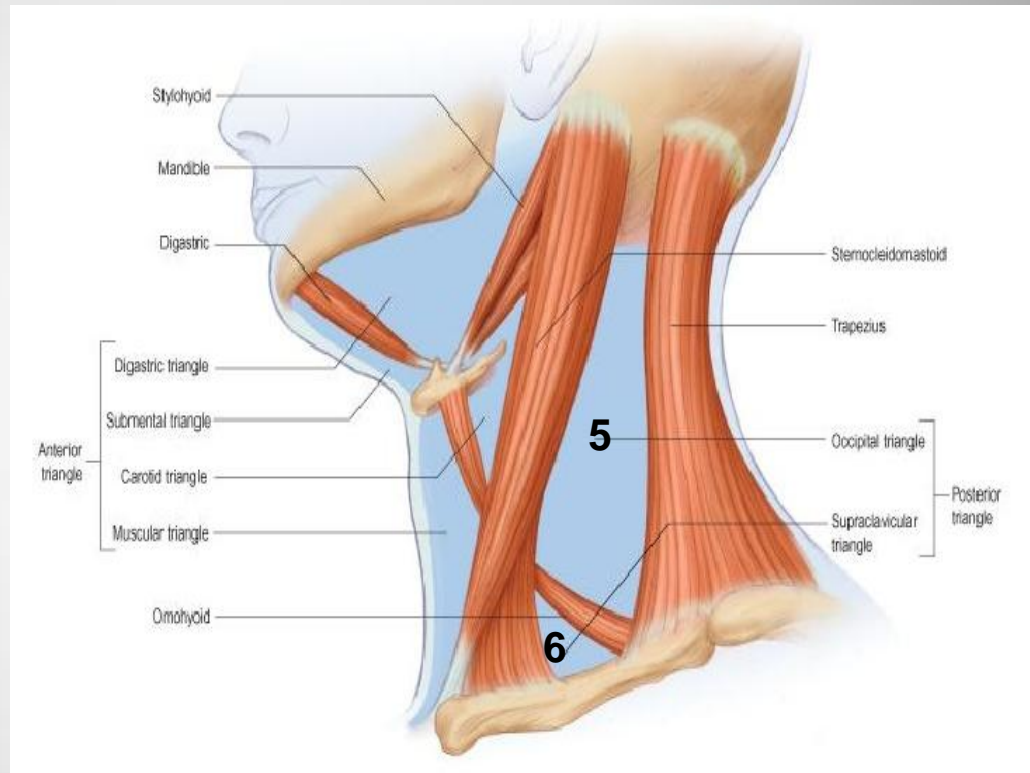


# Neck Triangles Inspection



**Anterior:**

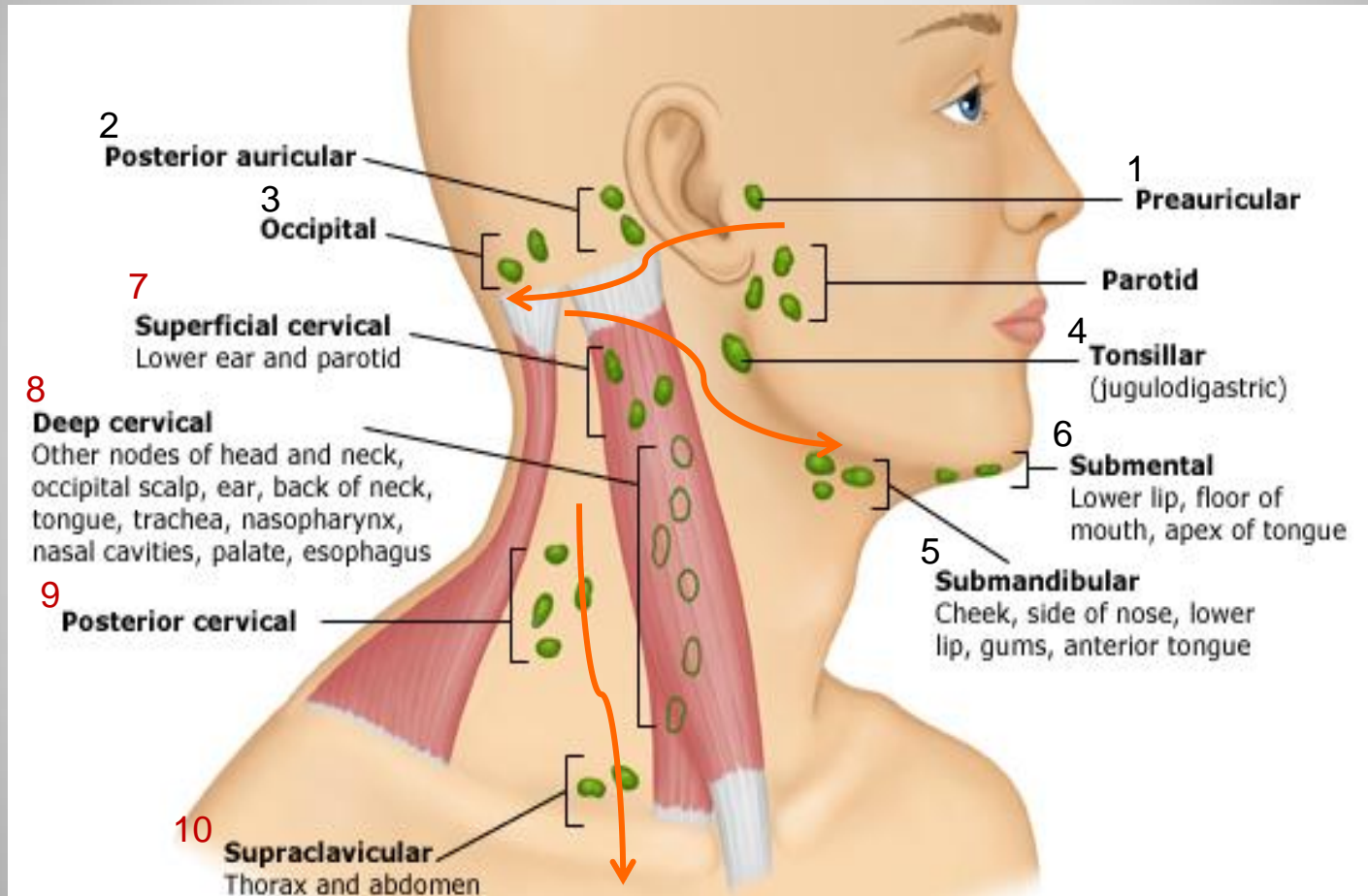
- 1. Submandibular
- 2. Carotid
- 3. Muscular
- 4. Submental



**Posterior:**

- 5. Occipital
- 6. Supraclavicular

# Neck Lymph Nodes



1前2後3枕4扁5下6下 7淺8深9後10上鎖

# Neck Lymph Nodes Palpation



- Slightly **flexed** neck
- Examiner's fingers pad **roll** the underlying skin in **circular** motions to feel for the presence of lymph nodes or masses

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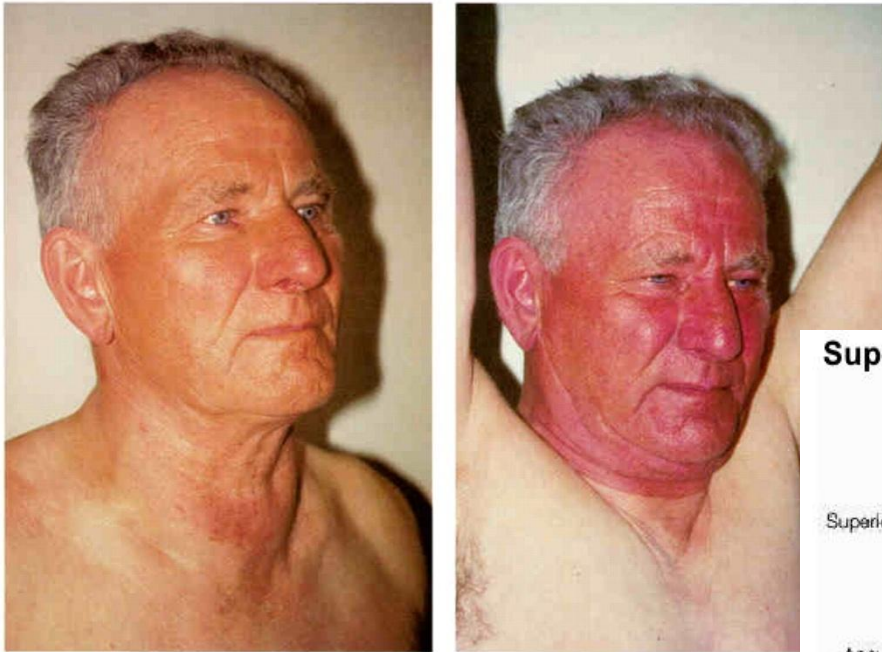
Part. III

**Pemberton's sign**

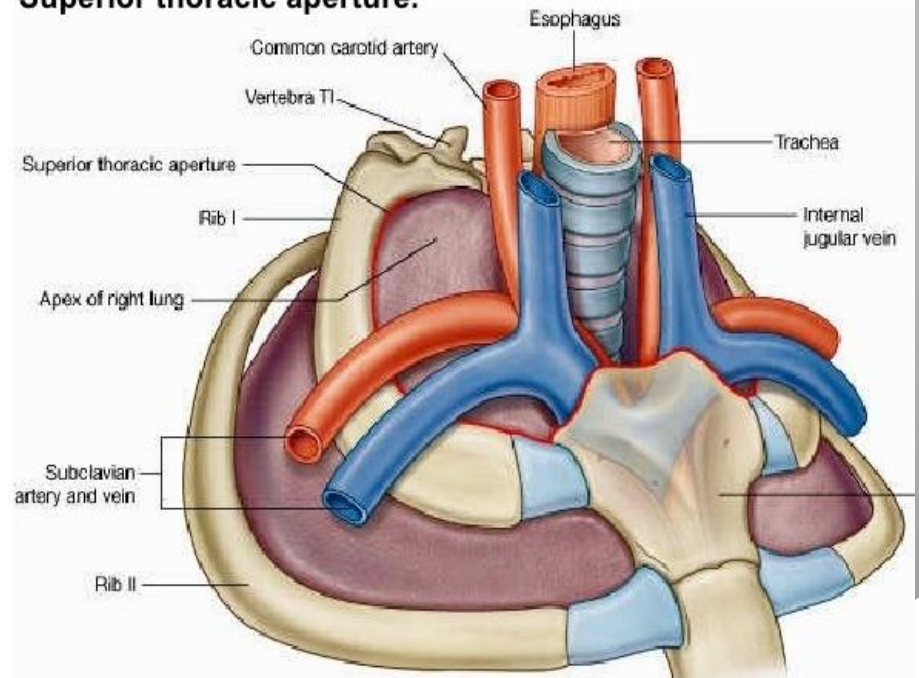


# Pemberton's sign

- Pemberton's sign may be found in patients with a large mediastinal mass, usually with large retrosternal goiter.



**Superior thoracic aperture.**



# Pemberton's sign



**A 62-yr-old man with a long history of goiter with progressive dyspnea and stridor on exertion.**



**After elevation of both of his arms, marked facial plethora developed, indicating compression of the jugular veins (Pemberton's sign)**

The End~