

# **Head, Face, and Neck including Regional Lymphatics**



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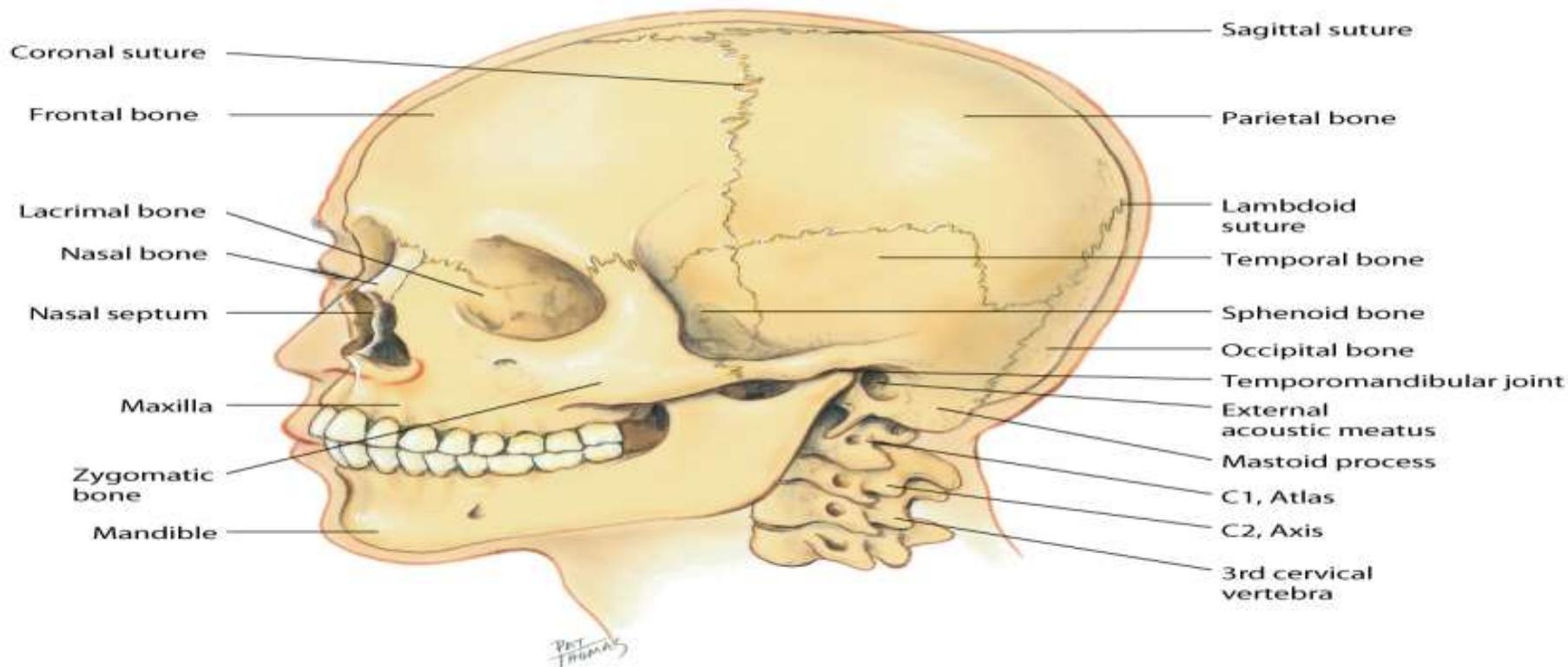
# Structure and function

## Cranial bones

- frontal
- parietal
- occipital
- Temporal

## Facial bones

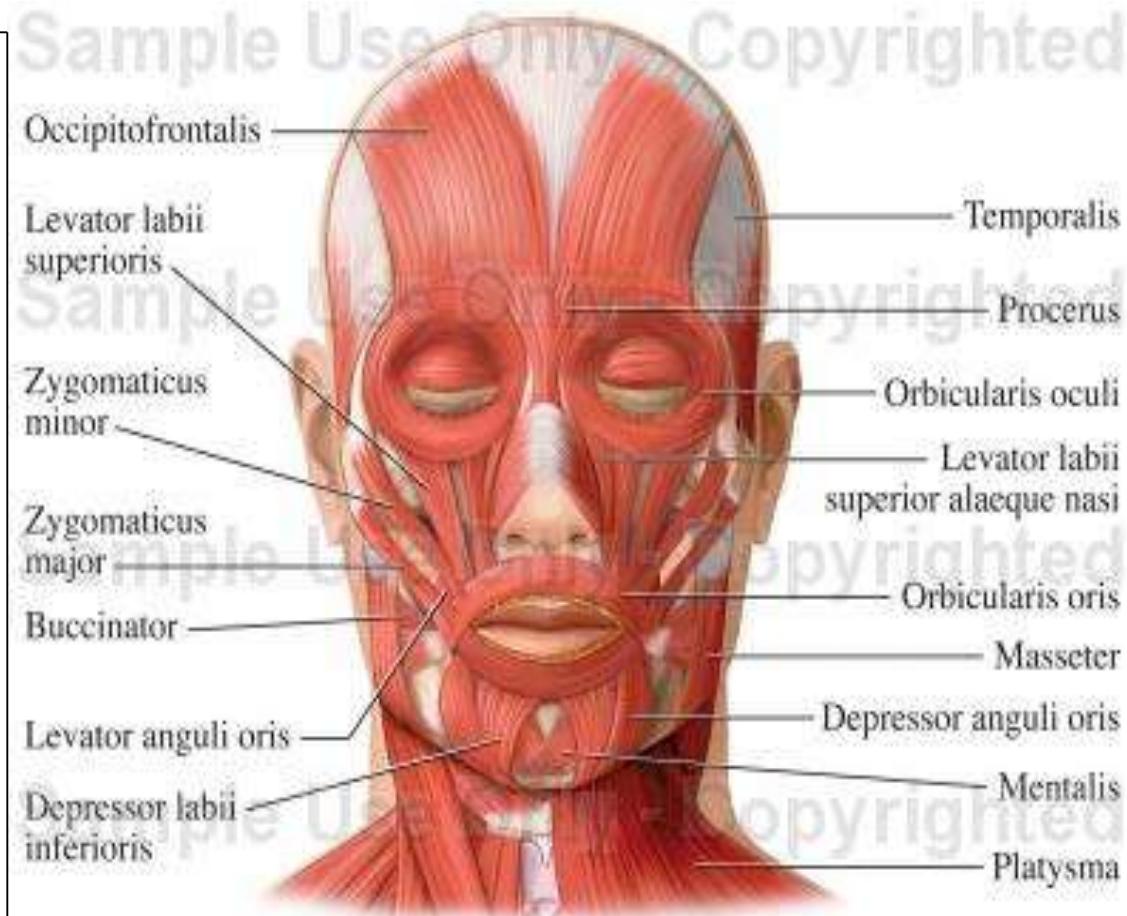
- Nasal bone
- Zygomatic bone
- Maxilla
- mandible



# Structure and function

## □ Facial Muscles

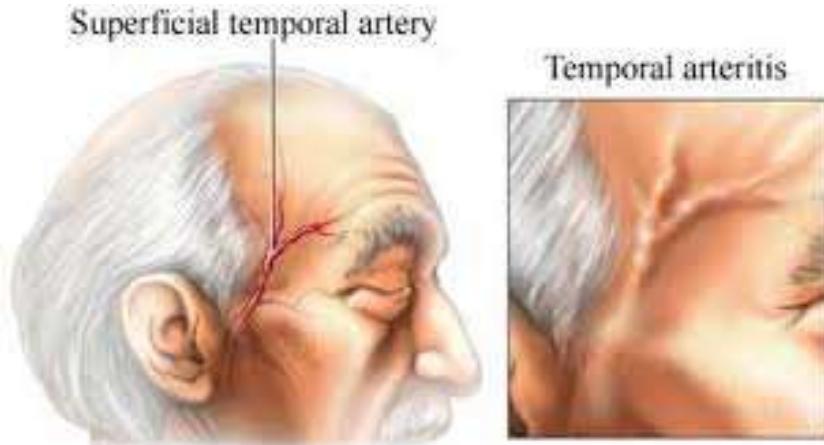
- Frontalis
- Temporalis
- Orbicularis oculi
- Nasolabial fold
- Orbicularis oris
- Zygomaticus
- Masseter
- Sternomastoid
- Trapezius



# Structure and function

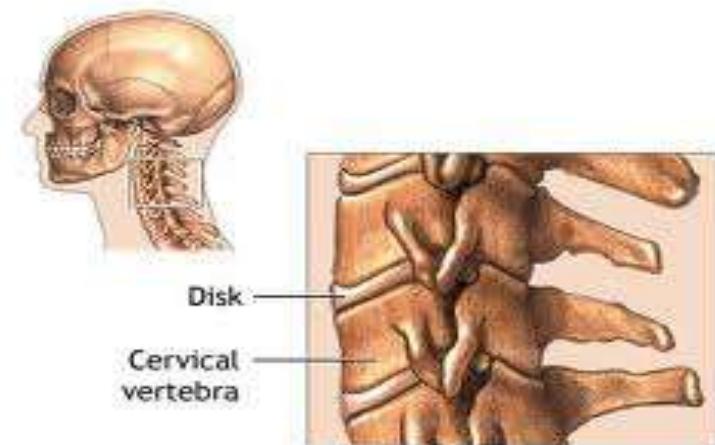
## The temporal artery

lies superior to the temporalis muscle .it is pulsation is palpable anterior to the ear

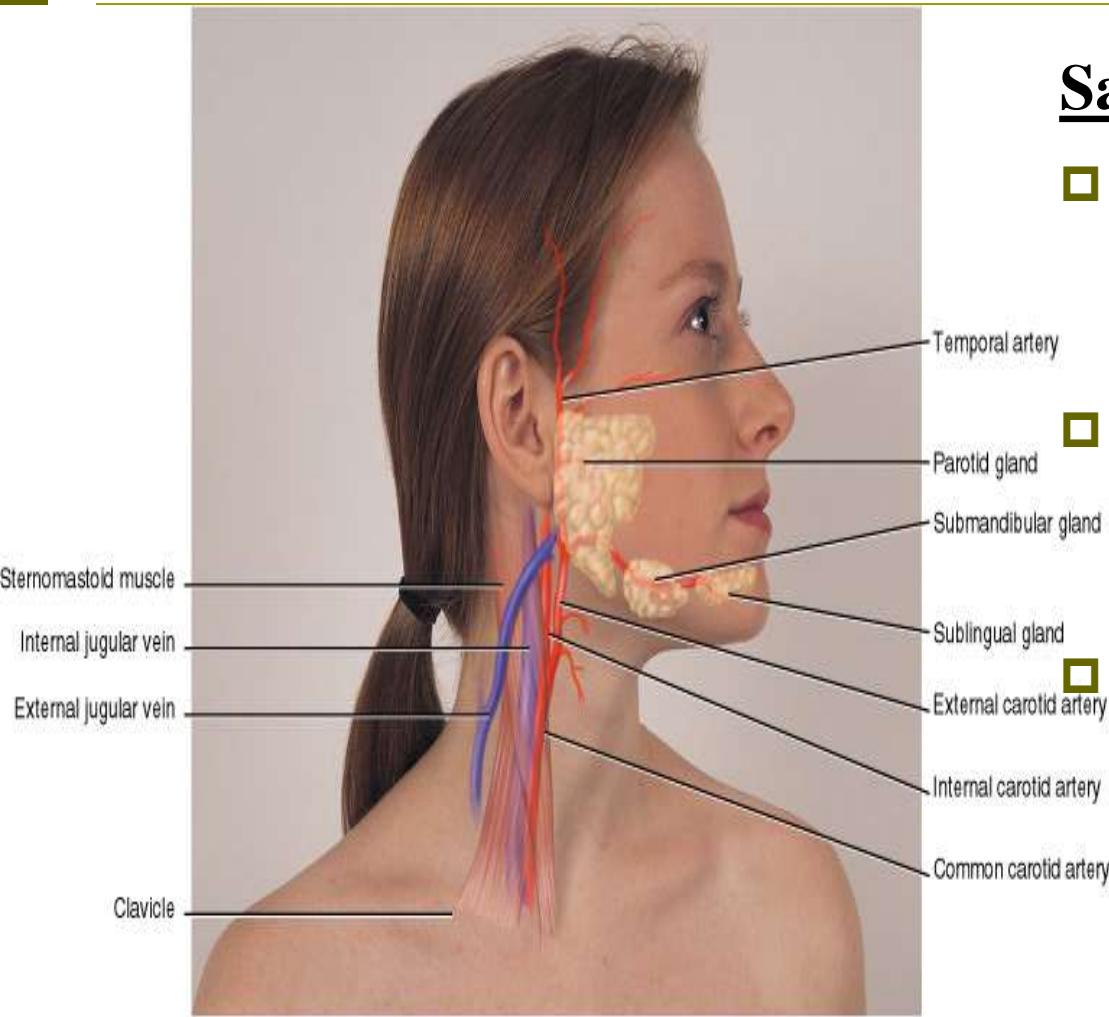


## The cervical vertebra

- C1 the atlas
- C2 the axis
- C7 has the long spinous process



# Structure and function



## Salivary glands

- Parotid glands are in the cheeks over the mandible, anterior to and below the ear
- Submandibular glands are beneath the mandible at the angle of the jaw
- Sublingual glands are in the floor of the mouth

# Anatomy: Neck

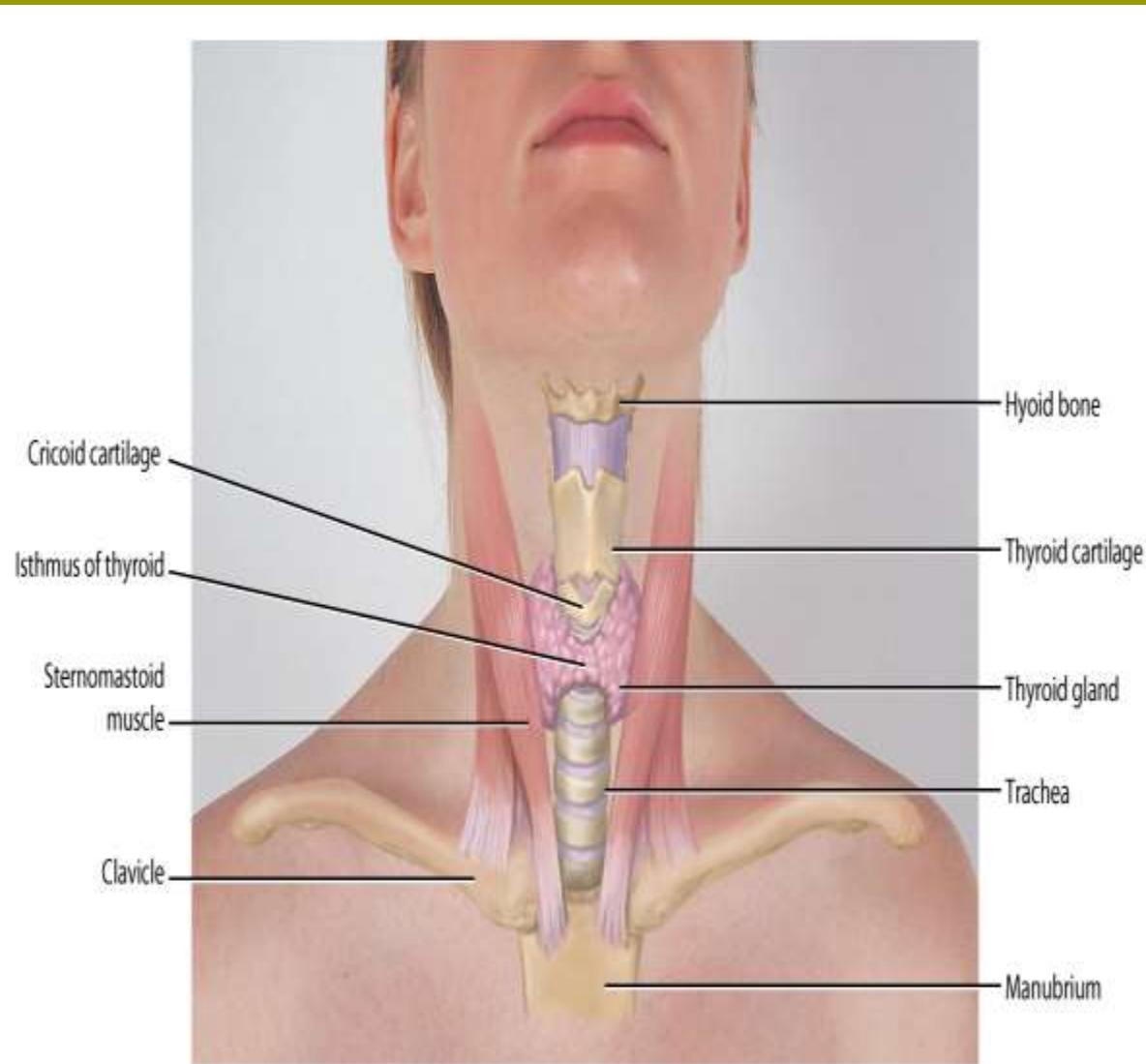
## □ Neck muscles

- Sternomastoid
- Trapezius
- Anterior and posterior triangles

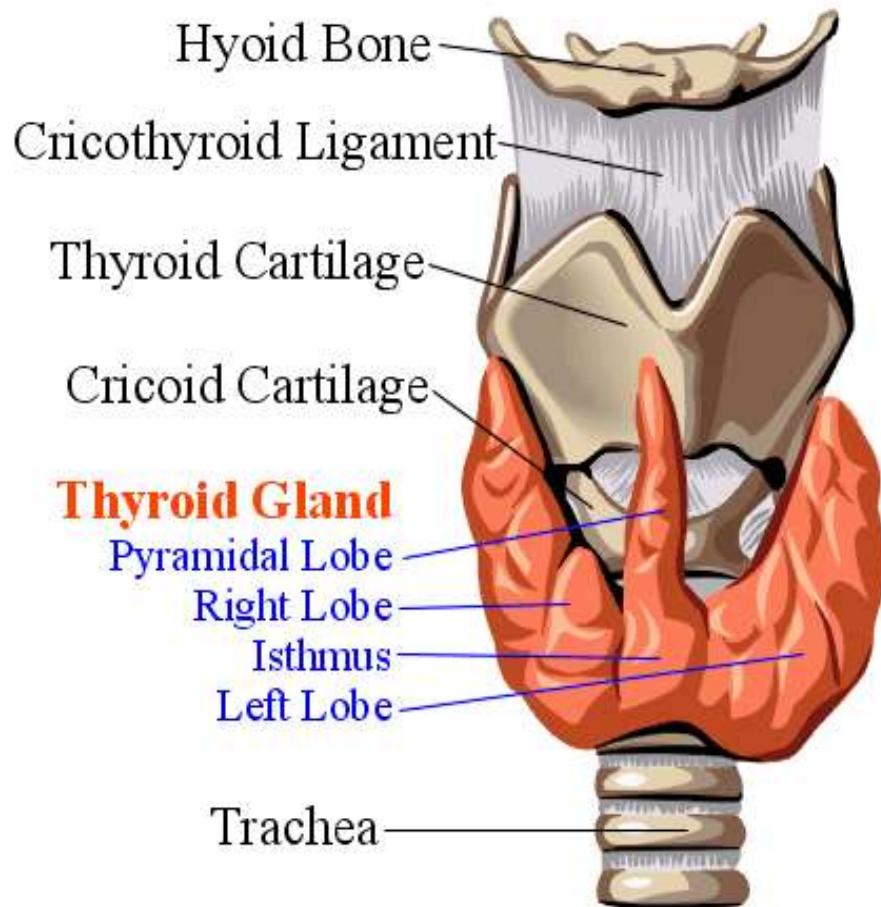
## □ Thyroid gland

## □ Trachea

## □ Cervical lymph nodes



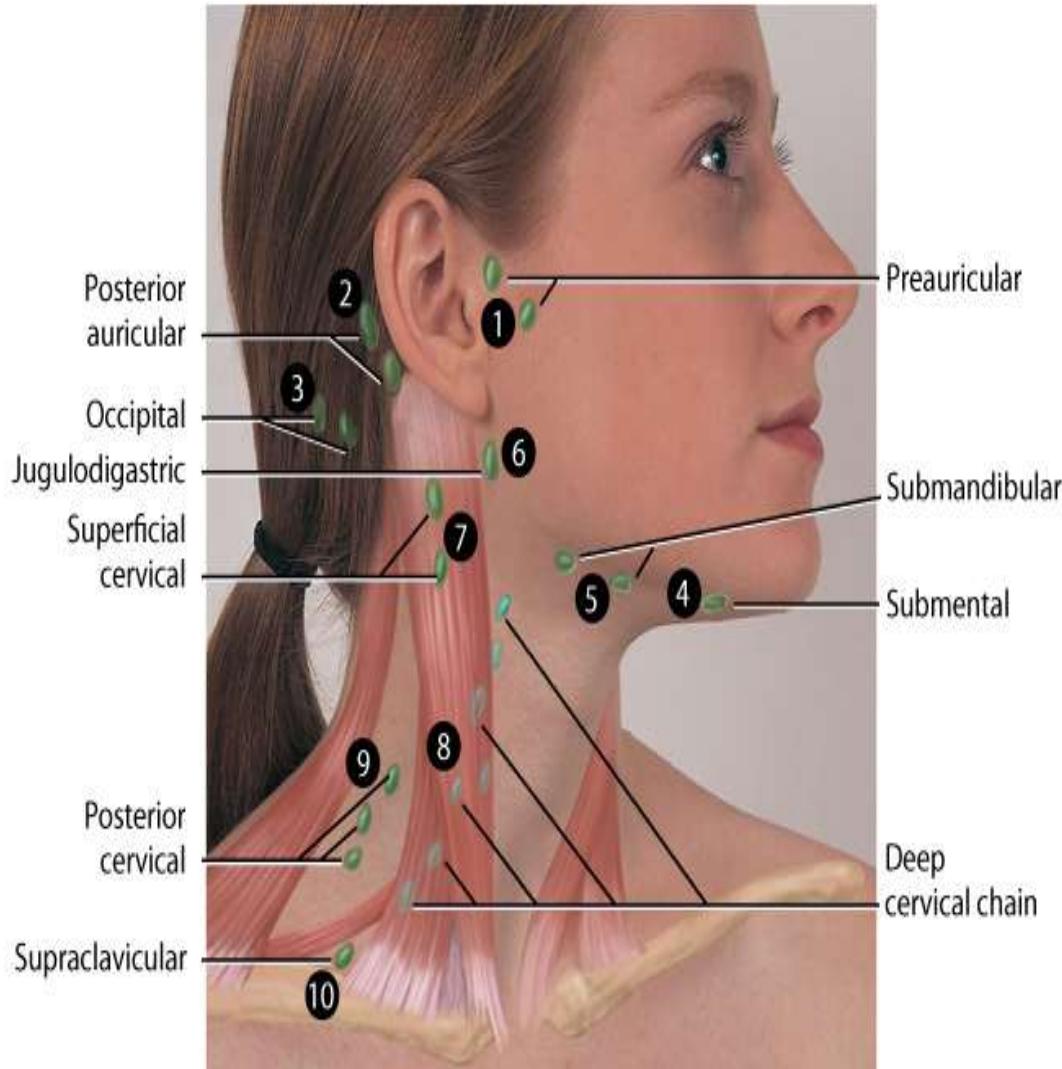
# Thyroid Gland



- TG consists of two lateral lobes.
- Left lobe is frequently larger than the right.
- Primary function: control the metabolic rate with T3 and T4

# Anatomy: Lymph Nodes

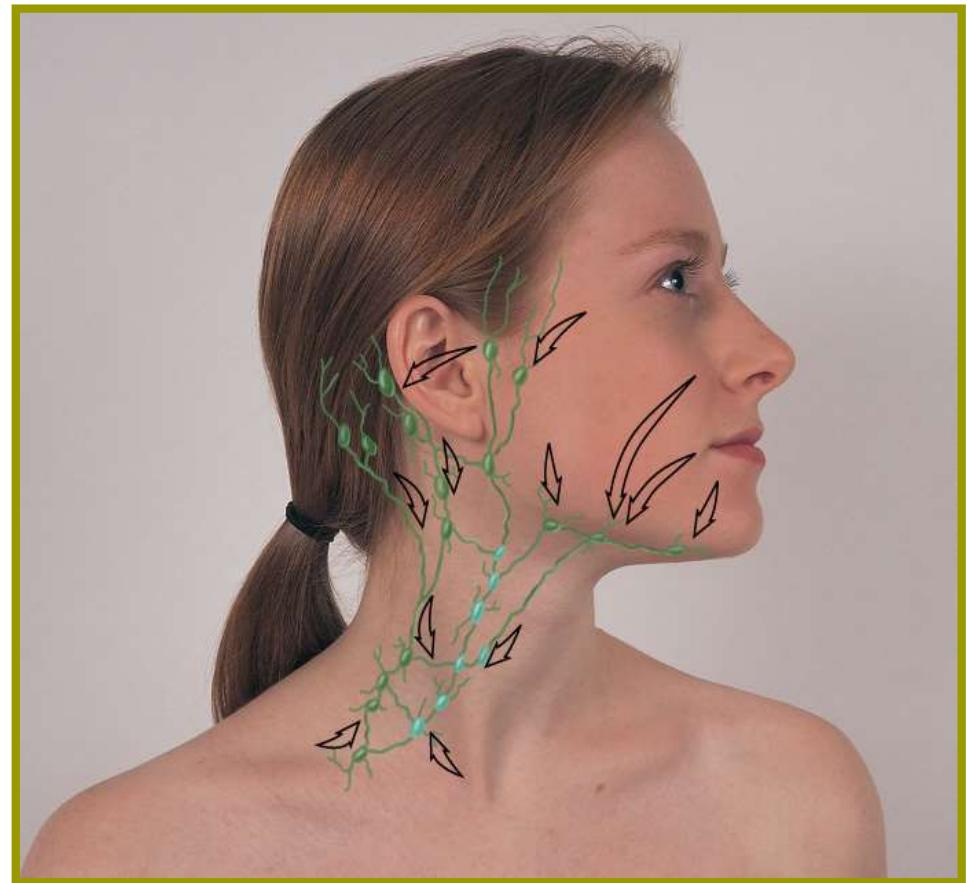
- Preauricular
- Posterior auricular
- Occipital
- Submandibular
- Submental
- Jugulodigastric
- Superficial cervical / deep cervical
- Posterior cervical chain
- Supracaclicular



# Anatomy: Lymph Nodes

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Direction of the  
drainage patterns of  
the lymph nodes



# Health History Questions

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- ❑ Headache
- ❑ Head injury
- ❑ Dizziness
- ❑ Neck pain, limitation of motion
- ❑ Lumps or swelling
- ❑ History of head or neck surgery

# Assessment: Head

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## □ Inspection:

- Symmetry
- Size and shape
- Any unusual movement

- Palpate and auscultate temporal arteries
  - thickening, tenderness, bruit

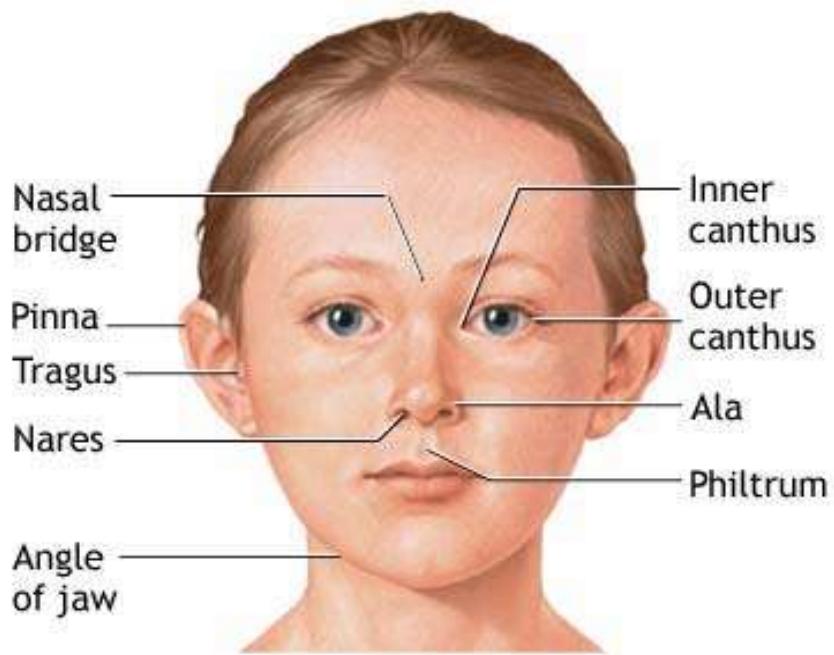
## □ Palpation of scalp

- Texture and distribution of hair
- Tenderness, nodules

# Assessment: Face

## □ Inspection

- Symmetrical of eyebrows, sides of mouth
- Facial expression
- Color, condition of skin
- Cranial Nerve VII
- Open/close jaw: crepitus, pain



ADAM.

# Sample Charting

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- Subjective:
  - Denies any unusually frequent or severe headache, no history of head injury, dizziness or syncope.
- Objective:
  - Head: normocephalic, no lumps, no lesions, no tenderness
  - Face: symmetric, no drooping, no weakness, no involuntary movement

# Examples of faces abnormalities



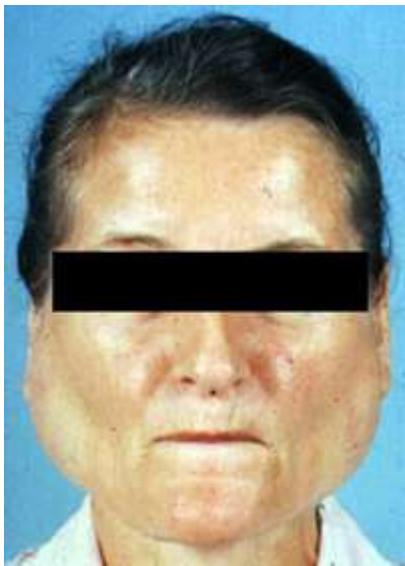
hydrocephalus



Acromegaly



Nephritic syndrome



Parotid gland  
enlargement



Myxedema

# Assessment: Neck

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- Inspection:
  - Symmetry: trachea centered
  - Stability
  
- Range of motion:
  - R ear to R shoulder
  - L ear to L shoulder
  - Chin to sternum
  - Hyperextend neck

# Assessment: Neck

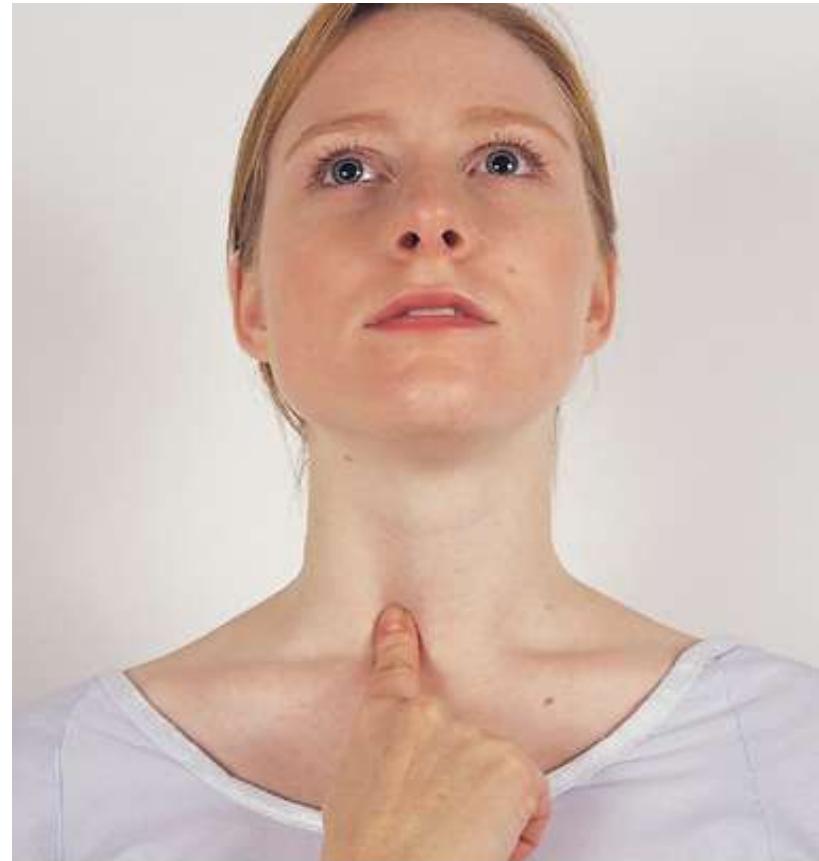
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- Inspect and palpate neck for trachea (should be at midline), thyroid, lymph nodes.
- Auscultate carotids for bruits (bell)
  - If bruit is heard, palpate for carotid thrill
  - Palpate one side at a time
- Perform ROM on neck (active and passive)

# The Trachea

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- Inspect that the trachea is in midline of the neck
- Palpate for tracheal shift
  - Place your index finger in the sternal notch and slip it off to each side
    - The space should be symmetrical on each side



# Assessment: Thyroid Gland

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- Inspect:
  - Swallow
- Palpation:
  - Lobes usually not palpable
  - Anterior/posterior, swallow (rises)
- Auscultation:
  - Use bell to hear bruit sound.

# Assessment: Thyroid Gland

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- General approach/Technique:
  - Ask client to swallow from a glass of water during exam, and use adequate lighting to enhance visualization
- Examination and documentation focus
  - Size
  - Shape
  - Consistency
  - Tenderness
  - occurrence of vascular sounds (bruit)

# PE of the Thyroid Gland (TG): Procedure

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- Inspect the area of the anterior neck containing the TG
  - Ask client to tilt head back slightly and swallow, note the movement of the trachea and other cartilage
- Normal finding:
  - TG usually too small to be observed
- Deviations from normal
  - Goiter

# Palpation of TG (Anterior Approach)

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- Stand facing the client: neck should be relaxed but held in slight extension
- Use pads of your first and second fingers and locate thyroid isthmus below cricoid cartilage
- Ask person to swallow (note rubbery texture on palpation)
- Palpate thyroid lobes
- Notes for any bulging or masses
- Palpate left and right thyroid lobes

# Palpation of TG (Posterior Approach)

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- Stand behind the client (seated with neck slightly flexed)
- Rest your thumbs the back of the client's neck and lightly place your fingers below the cricoid cartilage
- Palpate the middle isthmus as the client swallows
- Ask client to turn the head slightly to the side and palpate lobes. Use your fingers on the opposite site to displace the gland in a lateral direction
- Ask the client to swallow as you examine the lobe, repeat the same procedure with the other lobe

# Palpation of TG (Posterior Approach)

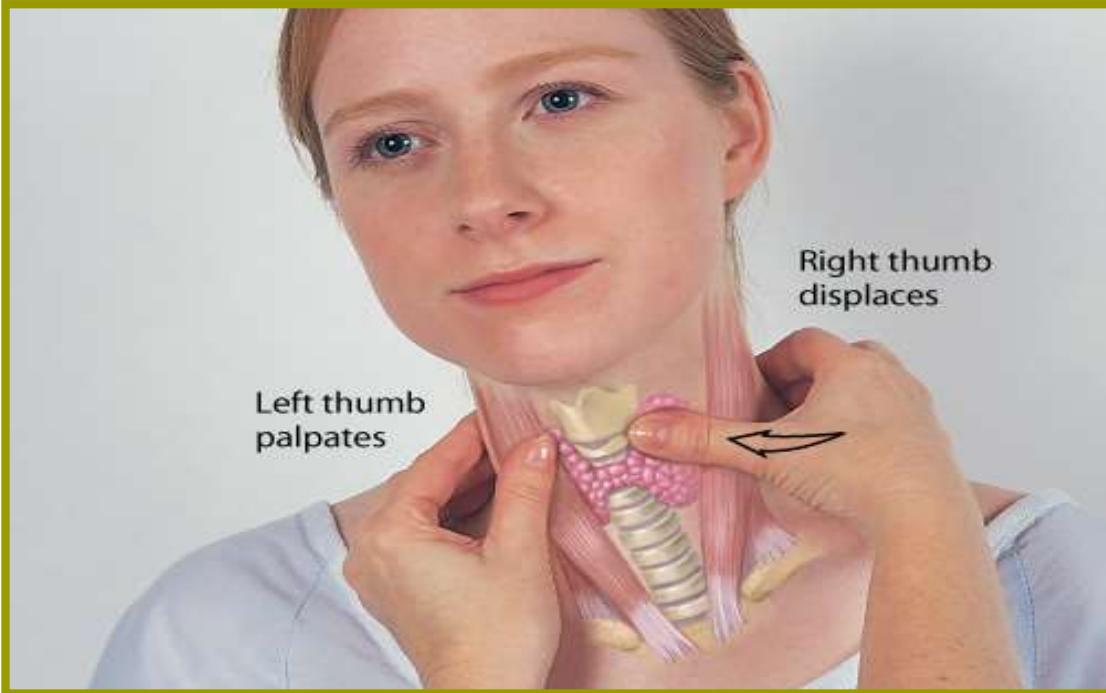
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Place fingers on one lobe and push thyroid cartilage to the opposite side.

Have patient swallow

## (Anterior Approach)



Right thumb  
displaces

Left thumb  
palpates

## (Posterior Approach)



Right hand  
palpates

Left hand  
displaces

# Palpation of TG (Anterior and Posterior Approach)

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- Normal findings:
  - Size and shape
  - Rubbery texture
- Deviations from normal
  - Goiter
  - Firm nodule: usually painless (malignant)
  - Pain on palpation may be associated with inflammation, which often radiates to ears

# Auscultation of TG (optional)

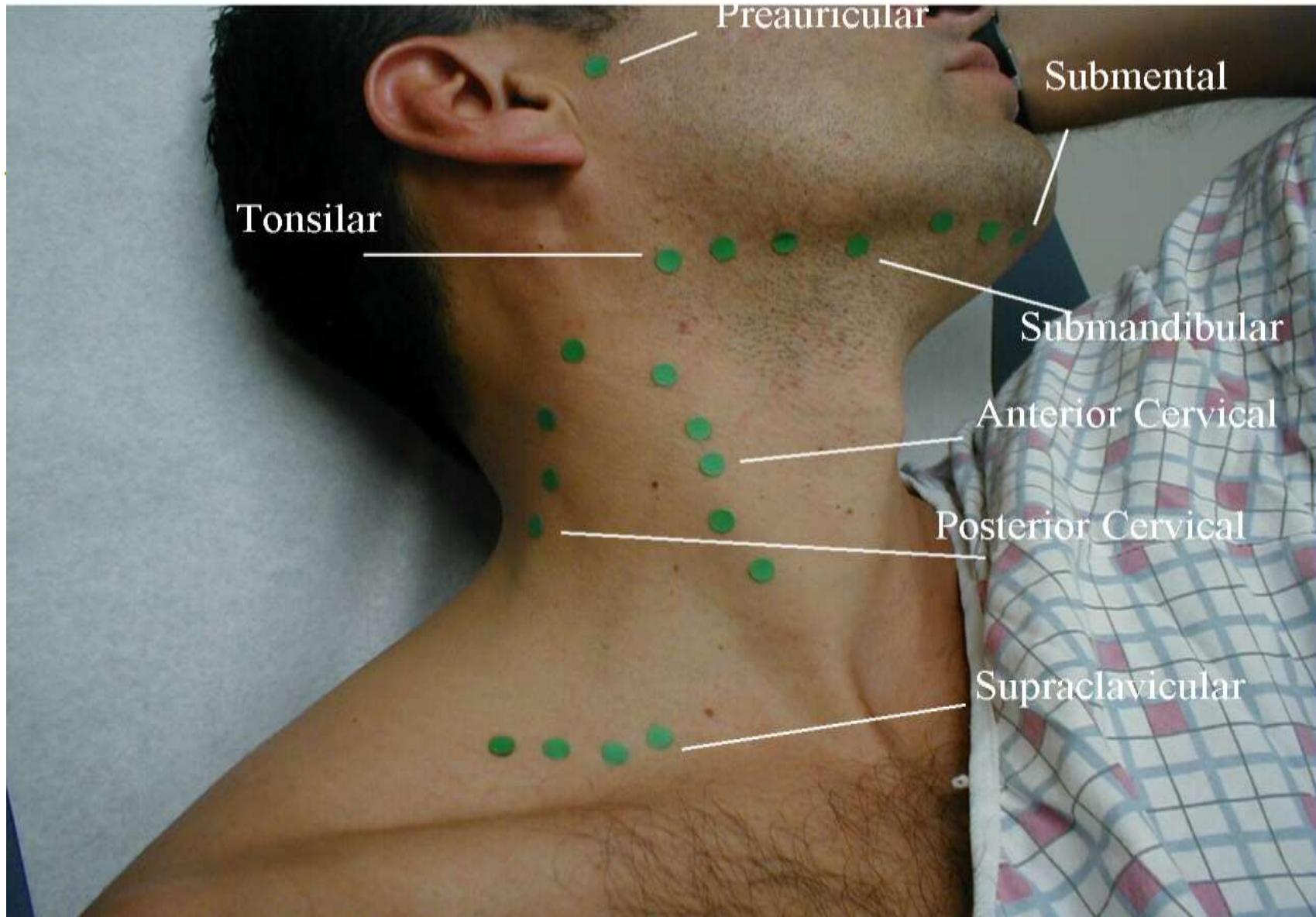
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- Sites for auscultation:
  - Both lobes of TG
  - Use bell of the stethoscope
  
- Deviations from normal
  - Bruit, which occasionally accompanied by a thrill

# Assessment: Lymph Nodes

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- 10 sets of nodes
  - Pads of 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> fingers
  - Palpate both sides except carotid
  - Location, size, shape, number of nodes, surface characteristics, consistency, tenderness, mobility/fixation, & signs of inflammation.



# Physical Examination of The Lymphatic System

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- General approach/Technique:
  - Should be incorporated into head-to-toe assessment
  - Superficial lymphatic system is examined by inspection and palpation
  - Location of lymph nodes varies among individual clients
  - Encourage client to report tenderness when palpating lymph nodes
  - Palpable lymph nodes should be distinguished from underlying tissue
  - Lymph nodes could be rolled up and down, side to side between examiner's fingers

# Physical Examination of The Lymphatic System

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- General approach/Technique:
  - Small palpable lymph nodes are common
  - Malignancies may result in palpable lymph nodes: non-tender, non-mobile, irregularly shaped, firm, rubbery or nodular – these require further evaluation
- Examination and documentation focus:
  - Inspection: location of any visible nodes, presence of swelling or red streaks
  - Palpation: nodes are described in terms of location, size (mm or cm), consistency, mobility and tenderness. Determine if it was noticed first by the client

# Head and Neck Lymphatic System Assessment Findings

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- Normal findings:
  - Superficial nodes not palpable, and not tender on palpation
  
- Deviations from normal:
  - Greater 1 cm in adults
  - Presence of infection (nodes are enlarged, warm and tender)
  - Sore throat infections
  - Otitis media

# Sample Charting

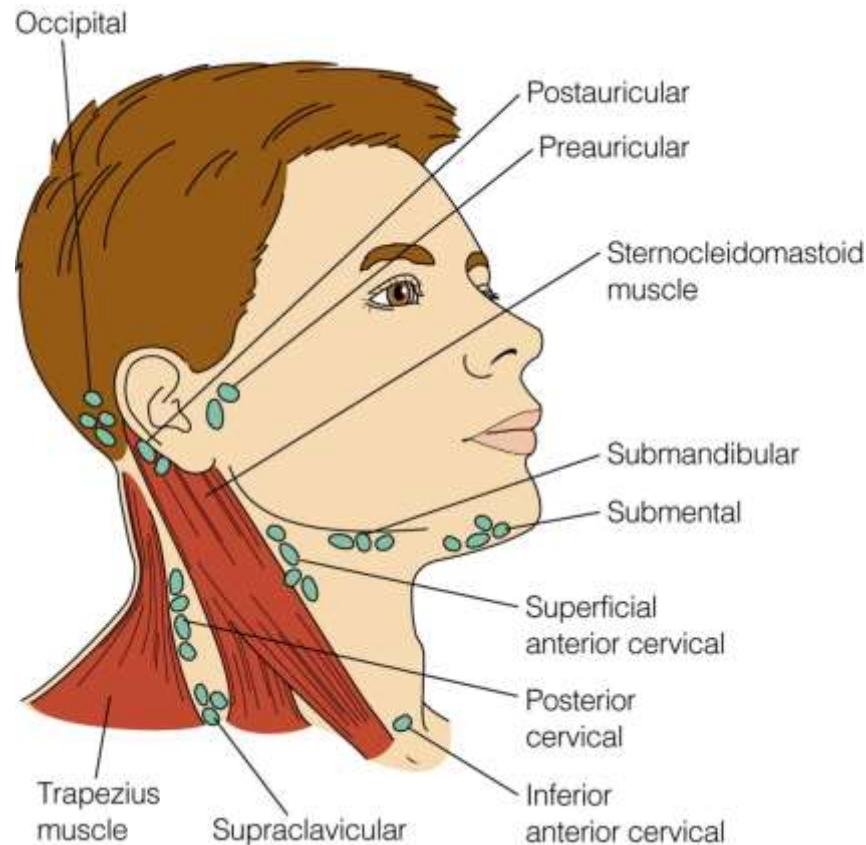
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- Subjective data:
  - no neck pain, no lumps or swelling, no limitation of motion, no lymph nodes swelling
- Objective data:
  - Supple with full ROM, no pain, symmetric, no lymphadenopathy or masses. Trachea midline, thyroid not palpable. No bruits.

# Head and Neck Lymphatic System

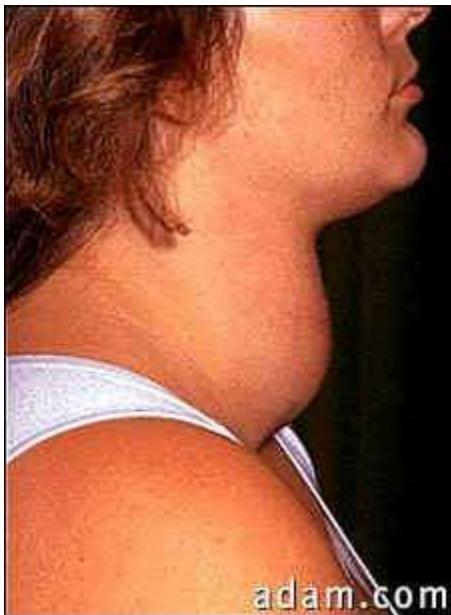
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- Nursing Diagnoses
  - Pain related to swelling and inflammation
  
- Clinical problems
  - Lymphadenopathy (local or systemic)

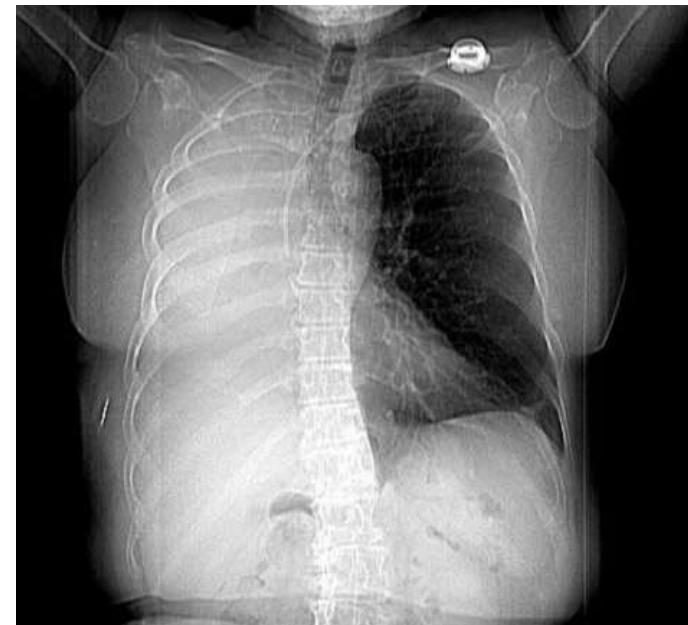


# Examples of abnormalities

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Goiter



tracheal deviation

# Thank you

Have a wonderful time 😊