



# EAR, NOSE AND THROAT

## **Head and Neck History & Examination**

**Leader: Maha Allhaidan**

**Done by: Bayan AlAmr & Arwa Almashaan**

**Revised by: Tahani AlShaibani & Ghaida Alabidi**

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# Neck Mass History Taking

<b>AGE GROUP</b>	Pediatric patients (up to 15) generally have inflammatory related neck masses and developmental more than neoplastic masses. Consider neoplasia first in older patients.
<b>DURATION AND GROWTH RATE OF MASS WHEN YOU NOTICE IT?</b>	<b>Malignant masses grow faster!</b> Rule of 7's: a mass that has been around: 7 days is inflammatory, 7 months is malignant, 7 years is congenital and benign
<b>ABSENCE OR PRESENCE OF PAIN</b>	Pain is often related to rate of growth and expansion, but can be related to direct neural invasion in the setting of certain malignancies. As an example, a fixed parotid mass that presents with pain is highly likely to be malignant.
<b>LOCATION</b>	Especially important when considering congenital and developmental masses because they occur in consistent locations. Spread of head and neck carcinoma is similar to an inflammatory disease and follows orderly lymphatic spread
<b>PROGRESSIVE OR CONSTANT? INFLAMMATORY HX</b>	Change in color, size, shape Ask about recent fever, pain and tenderness. Any recent illness, URTI, TB, sarcoidosis, fungal infection, dental problem, sinusitis or otitis. Thyroiditis can occur post URTI.
<b>MALIGNANT HX</b>	Ask about any previous head & neck malignancy. Also, <ul style="list-style-type: none"> <li>• Night Sweats</li> <li>• Sun Exposure</li> <li>• Smoking (duration, frequency, method of use)</li> <li>• Alcohol (a consideration for Squamous Cell Carcinoma)</li> <li>• Exposure to Radiation (Thyroid and Parathyroid Cancers) for medical/military workers</li> <li>• Otolgia in elderly with normal ear exam suggestive of carcinoma</li> <li>• Other Sx: <ul style="list-style-type: none"> <li>○ Nasal Obstruction,</li> <li>○ Bleeding,</li> <li>○ Otolgia,</li> <li>○ Odynophagia, Dysphagia,</li> <li>○ Hoarseness, or shortness of breath</li> <li>○ Sore Throat of &gt; 3 Weeks,</li> <li>○ Non Healing Ulcers,</li> <li>○ Hemoptysis,</li> <li>○ Weight Loss,</li> <li>○ Cervical Adenopathy,</li> <li>○ Hard Fixed Mass. (Other masses)</li> <li>○ Hearing loss with blocked ear in adult and elderly – look for nasopharyngeal carcinoma</li> </ul> </li> </ul>

<b>TRAUMA</b>	Any recent history of trauma to the head or neck? In neonate ask about Forceps delivery (may cause hematoma mass in anterior neck or within the sternocleidomastoid muscle).
<b>REFERRED PAIN</b>	Esp. to the ear because of referred pain via CN V, IX or XI can indicate an inflammatory or neoplastic process in any area in the upper aerodigestive tract mainly the oropharynx and hypopharynx.
<b>SPEECH DIFFICULTIES</b>	Voice Changes? Vocal cord paralysis suggests a thyroid carcinoma (b/c of involvement of recurrent laryngeal nerve) or primary laryngeal lesion
<b>FAMILY HX</b>	Any history of head or neck malignancies? Medullary Thyroid Cancer runs in families. Consider MEN (rare).
<b>PAST MEDICAL HISTORY</b>	Diabetes, HIV, Malignancies? Cervical lymph node hyperplasia very common in HIV. Smoker? Alcohol?
<b>PAST SURGICAL HISTORY</b>	
<b>NUTRITIONAL STATUS</b>	Any history of iodine deficiency? Suggested by residence in a geographic area of endemic goiter.
<b>HYPO/HYPER-THYROIDISM SX</b>	<b>Hypothyroid Sx</b> Complaints of fatigue, cold intolerance, weakness, lethargy, weight gain, constipation, dry & coarse skin, thin hair. <b>Hyperthyroid Sx</b> Complaints of unexplained nervousness and sweating, heat intolerance, weight loss, palpitations, an enlarging neck mass, and ocular prominence (exophthalmos).
<b>HYPERPARATHYROIDISM SX</b> <b>"BONES, STONES, ABDOMINAL GROANS, PSYCHIC MOANS AND FATIGUE OVERTONES."</b>	<b>Bones:</b> aches and arthralgias result from fractures and structural changes. <b>Stones:</b> because of hypercalcemia. <b>Abdominal Groans:</b> also b/c of hypercalcemia. Dehydration and constipation. Pancreatitis. PUD may worsen. <b>Psychic Moans:</b> hypercalcemia can cause anorexia, N/V, thirst and polydipsia, mood swings, psychosis. <b>Fatigue:</b> lassitude and muscular fatigability
<b>RISK FACTORS</b>	<ul style="list-style-type: none"> <li>• Smoking (use in Southern areas which is a chewable tobacco therefore approximately 90% of oral CA in Saudi)</li> <li>• Previous burn or scar</li> <li>• Family history</li> <li>• Sun exposure</li> <li>• Immune deficiency</li> <li>• Wood dust exposure</li> <li>• History of other cancer</li> <li>• Alcohol</li> </ul>

# Head and Neck Examination (including thyroid)

**1. Introduce you self to the patient.**

**2. Ask for permission after explaining the examination to the patient.**

**3. Wash your hands.**

**4. Insure patient's privacy.**

**5. Exposure is ideally from the nipples up.**

**6. Regarding position patient should be sitting and at the same level as you are.**

## **7. Inspection & General exam:**

### - General:

1. Palms: moist or dry
2. Muscle wasting
3. Tremors
4. Eyes for: lid retraction, lag and exophthalmos
5. Check pulse (Rate and Rhythm)

### - Localized:

1. Neck: Check for any masses or asymmetry with and without swallowing
2. Ask the patient to protrude the tongue
3. If there was a swelling (the examination should be carried out as a lump)\*
4. Scars
5. Prominent veins

## **8. Palpation:**

- Ask about pain before you start palpation and check for tenderness after
- Examiner should stand behind the patient and ask the patient to flex his head slightly forward or keep it in a neutral position
- Examine both sides of the trachea using your fingertips on both sides covering the anterior and posterior triangles
- Repeat the previous step but ask the patient to swallow this time.
- Come anterior for tracheal tug in suprasternal notch

### - **Lymph node examination:**

1. Pre-auricular (in front of the ear)
2. Post-auricular (behind the ear)
3. Occipital (base of the skull)
4. Posterior cervical (back of sternocleidomastoid muscle)
5. Tonsillar (below angle of mandible)
6. Sub-mandibular (along the underside of the jaw)
7. Sub-mental (below the chin)
8. Anterior cervical both superficial and deep (on top of sternocleidomastoid muscle and deep to it)
9. Supra-clavicular (In an angle between sternocleidomastoid and collarbone)

**9. Percussion for retrosternal goiter over manubrium sterni, clavicle, supraclavicular fossa and the first two intercostal spaces.**

**10. Auscultation over thyroid gland for bruits.**

**11. Thank the patient and answer her/his questions.**

• **If there was a lump comment on the following:**

**1- Inspection:**

- Site and describe the location by levels ( I, II , III , IV, V, VI) or by triangles
- Size
- Shape
- Surface and edges: smooth or nodular surface edges: well defined regular or well defined irregular or is it diffuse and not well defined or slippery edge
- Color
- Single or multiple
- Associated changes like scars or discharge

**2- Palpation:**

- Tender by palms
- Temperature by dorsum of hand
- Go over 4s again (site, size, shape and surface) ideally we use measuring tape for the size
- Texture (consistency :stony hard, firm, rubbery, spongy or soft)  
Hard : as bone  
Firm : as tip of nose  
Soft : as ear lop
- Sometimes we check composition ( liquid , hard , or gas )

**Other tests:**

- I. Relation to skin or underlying tissue (move the lump in both vertical and horizontal directions)**
- II. Fluctuation test (not applicable if hard)
- III. Translumination (not applicable if hard)
- IV. Reducibility (not applicable if hard)
- V. Compressable or not (not applicable if hard)
- VI. Pulsatile (expansion or transmitted)

**3- Percussion and Auscultation**

• **If you were asked to perform head and neck examination in general don't forget to go over the followings:**

**1. Oral cavity and oropharynx**

- Make note of any trismus
- Notice any ulcers, leukoplakia- white none removable discoloration-
- Asymmetry of the tonsils
- Fallen or lost teeth
- Don't forget to examine the floor of mouth and the gingiva buccal sulcus
- Bimanual palpation is a must

**2. Nasal cavity**

- Notice any bleeding, ulcers or masses
- Look for nasal blockage
- Any nasal deformity
- Don't forget involvement of the eyes

**3. Ear**

- Look for any masses or lesions in the pinna or the canal
- Look for any middle ear effusion- may suggest nasopharyngeal carcinoma

**4. Scalp**

- Don't forget to examine the scalp for any lesions – look for BCC, or SCCA and chronic infections

**5. Cranial nerves**

- Look for any facial paraesthesia or numbness and any facial weakness
- Look for all the other cranial nerves if they are involved

**Notes:**

- Thyroid gland, thyroid cartilage, cricoid cartilage, thyroglossal cyst, and lymph nodes they all move upon swallowing.

- If thyroid gland was palpable don't forget to comment on: size, shape, symmetry, consistency, tenderness and mobility.