King Saud University

Collage of Nursing

Medical Surgical Nursing depart

Application of Health Assessment

NUR 225

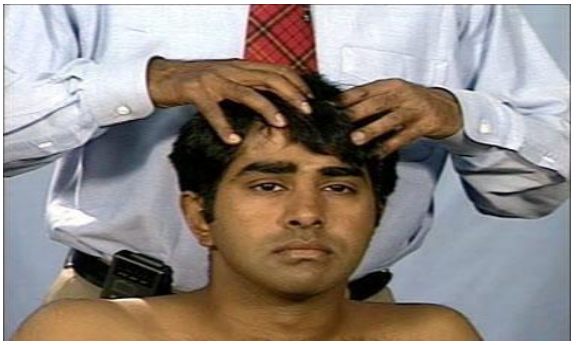
Module Three

Physical examination of Head and Neck

Physical Examination techniques for head and neck

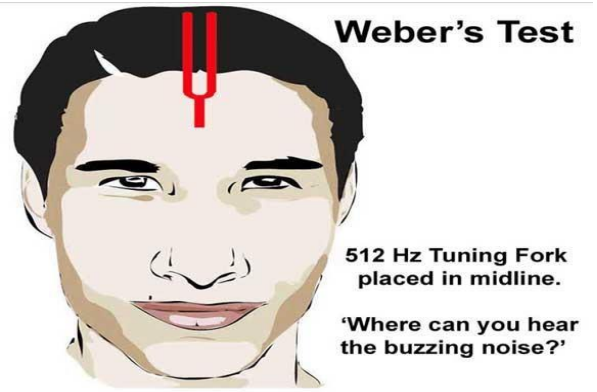
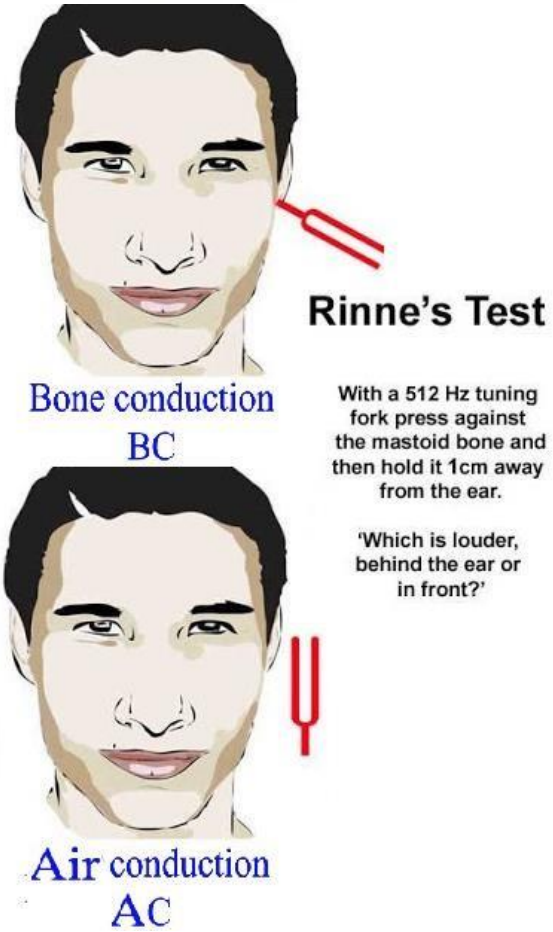
1- Prepare patient and environment
2- Obtain health history
3- Prepare equipment needed as listed in the lecture

1- Assessment technique: The Head

Objective data normal range of findings	Abnormal findings
Inspect and Palpate the Skull General size and shape **Size** Note the general size and shape. Normocephalic is the term that denotes a round symmetric skull that is appropriately related to body size. **Shape** To assess shape, place your fingers in the person's hair and palpate the scalp. The scalp normally feels symmetric and smooth. There is no tenderness to palpation. Use a gentile rotating motion with finger tips. Begin at the front and palpate down the midline. Palpate each side of the head then occipital region for occipital lymph. Palpate the joint as the person opens the mouth and note normally smooth movement with no limitation or tenderness. **Inspect the Face**: Note facial expression and its appropriateness to behavior or reported mood. Anxiety is common in the hospitalized or ill person. Although shape of facial structures may vary among races, they should always be symmetric, eyebrows, palpebral fissures, nasolabial folds, and the creases extending from the nose to each corner of the mouth.	**Deformities:** Microcephaly (abnormally small head) Macrocephaly (abnormally large head) acromegaly (Paget's disease)  Crepitation, limited range of motion or tenderness. Hostility or embarrassment. Tense, rigid muscles may indicate anxiety or pain; a flat affect may indicate depression; excessive smiling may be inappropriate. Marked asymmetry with central brain lesion (brain attack) or with peripheral cranial nerve VII damage (Bell's Palsy).

Note any abnormal facial structures (coarse facial features, exophthalmos, changes in skin color or pigmentation), or any abnormal swelling. Note any involuntary movements (tics) in the facial muscles, normally none occur.	Edema in the face occurs first around the eyes (periorbital) and the cheeks where the subcutaneous tissue is relatively loose.
Inspect External Ocular Structures (The Eye) Size, placement, alignment All three should be symmetrical	
Eyebrows Normally eyebrows are present bilaterally, move symmetrically as the facial expression changes, and have no scaling or lesions.	Exopthalamus – abnormal protrusion of the eyeball Absent lateral third of brow with hypothyroidism. Unequal or absent movement with nerve damage. Scaling with seborrhea.
Inspect lashes for hair distribution and growth Short Evenly spaced upper lashes curl upward and lower lashes curve downward and away from eye	Unequal distribution of hair
Eyelids When eye is open the upper lid should fall between the upper iris and top portion of pupil. The skin is intact without redness, swelling, discharge, or lesions.	Lid lag with hyperthyroidism Incomplete closure of lids can cause damage to cornea Ptosis – drooping of upper eye lid
Sclera **Conjunctiva** and sclera should be white and free from nodules or swelling	Yellow sclera (Jaundice) Pale palpebral conjunctiva (anemia) Increased number of blood vessels (inflammation)
Eyeballs The eyeballs are aligned normally in their sockets with no protrusion or sunken appearance. Blacks normally may have a slight protrusion of the eyeball beyond the supraorbital ridge. Eyeballs look moist and glossy. Explain procedure to the patient then put on examination gloves and keep his eyes closed , gently palpate eyelids for tenderness, mass & swelling, Eye ball firm Feeling touch sensation	Exophthalmos (protruding eyes) and enophthalmos (sunken eyes)

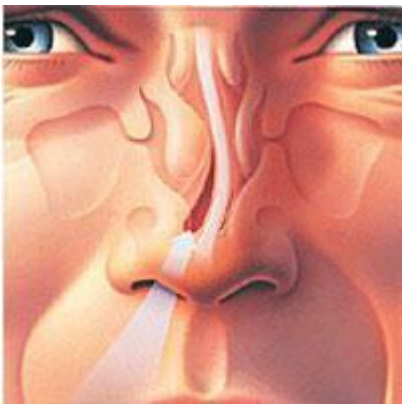
Pupil	
Note size, shape and equality of pupils Round, clear and equal Test pupillary light reflex, darken the room and ask the person to gaze into the distance. (This dilates pupils)	resting adult 3mm-5mm Changes in pupils can indicate central nervous system injury Observe for cataracts
Test for accommodation by asking the person to focus on a distant object. This process dilates the pupils. Then have the person shift the gaze to near object, such as your finger held about 7-8 cm from the nose, a normal response is papillary constriction. Record normal response to these maneuvers s PERRLA, or Pupils Equal, Round, React to Light and Accommodation.	Absence of constriction or convergence. Asymmetric response.
Testing visual field This test is used to evaluate the peripheral extent of visual field.	Hemianopia (loss half of visual field)
Testing visual acuity Ask patient to sit or stand 4-6m from Sellen-chart and cover the left eye with opaque card .Ask patient to read the letters on one line of the chart and then to move downward to increasingly smaller lines until he can no longer discern all of the letters Repeat the test with the other eye.	Blindness, Myopia (impaired distant vision) Presbyopia (Impaired Near vision).
Testing corneal reflex By lightly touching the cornea with wisp of cotton. **Blinking is normal reaction**	No reaction
Testing eye ball movement Ask patient to follow the object with his eyes Without moving his head. Nurse moves the object to each of the six cardinal positions, returning to the midpoint after each movement.	
Inspection of the Ear	
Location / Alignment hygiene The top of the ear should be in a straight line with the corner of the eye No swelling or thickening	Microtia – small ears Macrotia – Larger than normal ears Edema Redness – indicates inflammation Crusts over external area – eczema , contact dermatitis
Discharge or odor May be caused by a perforated tympanic membrane, foreign body, exudates or wax **Inspect ear canal** (external auditory canal &tympanic membrane) by using otoscope .The auricle is gently pulled upward and backward to straight the ear canal.	Purulent otorrhea – otitis externa or media Frank blood or clear watery drainage –especially after trauma - possible skull fracture Foreign body – loss of hearing

<u>Palpate</u> auricle for texture and pain sensation on movement. Moveable without pain. The auricle is firm in texture	Moveable with pain
<u>Palpate</u> mastoid area behind ear for tenderness. No tenderness	Tenderness
<u>Hearing acuity tests</u>	
<u>Weber 's test:</u> Uses to evaluate bone conduction.	
<u>Rinnes Test:</u> Uses to evaluate air conduction of the sound	

Inspection of the Nose

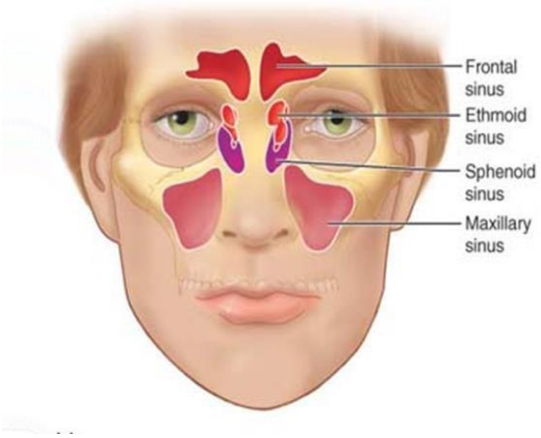
Shape
Symmetry
Patency
Mucosal Integrity
Should be pink and moist
Septum should be straight

Erythema and / or discharge from one side of the nares is suggestive of a foreign body



Palpate frontal and maxillary Sinus for tenderness.

***Frontal**
Place your thumbs above the patient eyes just under the bony ridges of the upper orbits and place your fingertips on his forehead
*** Maxillary**
Gently press your thumb on each side of the nose just below cheek bones



Test Olfactory nerve
Ask patient to close his eyes and block one nostril and inhale a familiar aromatic substance through the other nostril

Inspect and Palpate the Mouth

Lips
Integrity
Symmetry
Color

In light skinned people circumoral pallor occurs in shock and anemia
Cyanosis with hypoxemia and chilling
Cherry red lips with carbon monoxide poisoning,

Moist, soft and pink

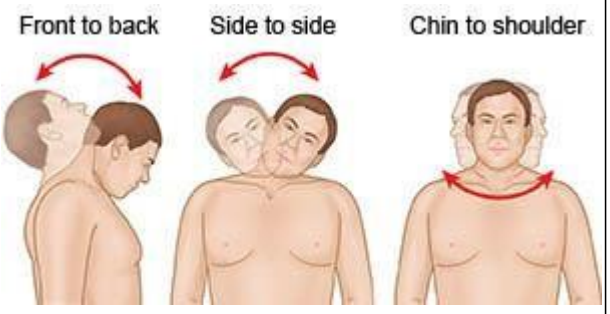
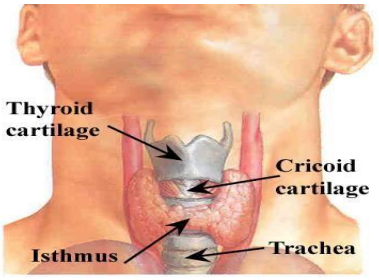
acidosis from aspirin poisoning or ketoacidosis

Gum- color ,lesion

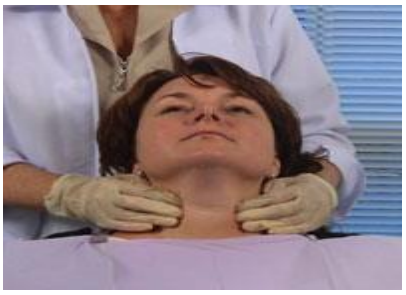
Teeth – should be in good condition

Mucous Membrane – colour, texture, discharge, swelling

History helps to determine if oral lesions have infectious, traumatic, immunological, or malignant etiology
Dysphagia – occurs with many conditions, gastroesophageal reflux, pharyngitis, stroke, neurological diseases, esophageal cancer

Tongue – size, colour, thickness, lesions, moisture, symmetry Palpate the tongue and floor of mouth with a gloved finger. Pink ,free from ulcer, nodules	White patch
Pharynx – inflammation, exudates, masses . press a tongue blade firmly upon the-tongue-for visualization-of-the pharynx	Untreated strep throat may lead to the complication of rheumatic fever
roof of mouth for color and architecture of hard palate	Pigmentation-Thrush on the palate.
Inspect and palpate the NECK	
Symmetry Head position is centered in the midline, and the accessory neck muscles should be symmetrical. The head should be held erect and still.	Head tilt occurs with muscle spasm. Rigid head and neck occur with arthritis. Note pain at any particular movement. Note limited movement due to cervical arthritis or inflammation of neck muscles.
Range of Motion Note any limitation of movement during active motion, ask the person to touch the chin to the chest, turn the head to the right and left, try to touch each ear to the shoulder (without elevating shoulders), and to extend the head backward. When the neck is supple, motion is smooth and controlled.	
Test muscle strength and the status of cranial nerve XI by trying to resist the person's movements with your hands, as the person shrugs the shoulders and turns the head to each side.	
***Inspect thyroid gland** for symmetry, visible mass. You should stand in front of the client & Ask client to sip some water and swallow. Symmetrical, no mass. Thyroid gland ascends normally during swallowing & not visible , Except in extremely thin person	Thyroid enlargement may be a unilateral lump, or it may be diffuse and look like a doughnut lying across the lower neck. 

Palpate thyroid by standing behind the client. Put your hands around his neck with your finger tips on the lower half of the neck over the-trachea.

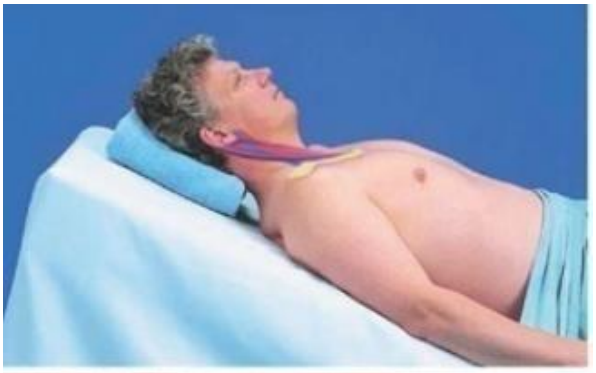


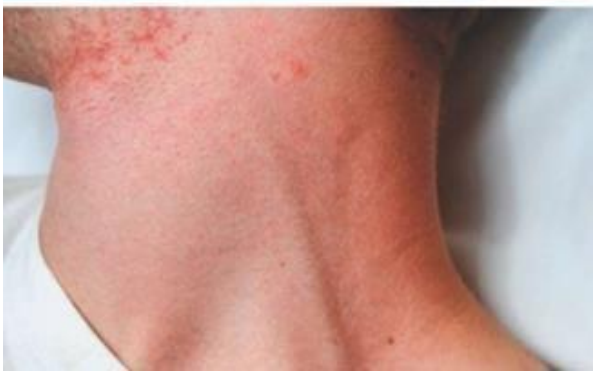
Inspect External jugular veins

Observe with patient sitting and then lying at 30-45 angle.

Normal finding: Jugular veins should be flat, without sign of distention

Distention Heart failure





Lymph Nodes

Using gentle circular motion of your finger pads, palpate the lymph nodes.

Use gentle pressure because strong pressure could push the nodes into the neck muscles.

If any nodes are palpable, note their location, size, shape, delimitation (discrete or matted together), mobility, consistency, and tenderness.

Cervical nodes are often palpable in healthy persons, although, this palpability decreases with age. Normal nodes feel movable, discrete, soft, and non tender.

Lympadenopathy is enlargement of the lymph nodes (› 1 cm) due to infection, allergy, or neoplasm.

The following criteria are common clues but are not definitive in all circumstances.

Acute infection – nodes are bilateral, enlarged, warm, tender, and firm but freely movable.

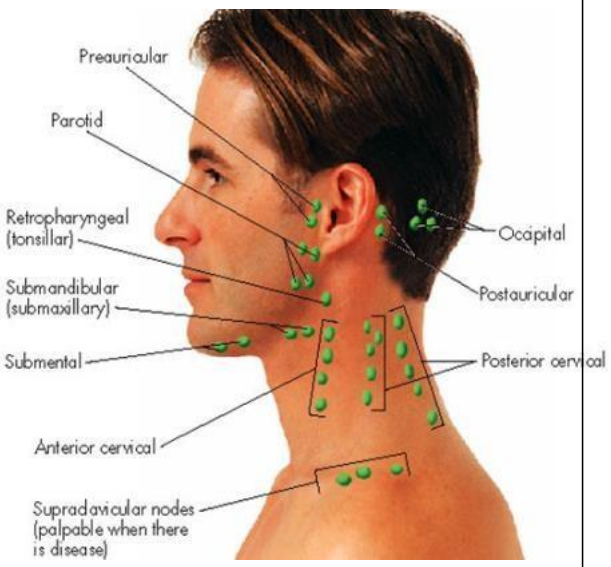
Chronic inflammation e.g., in tuberculosis the nodes are clumped.

Cancerous nodes are hard, unilateral, nontender, and fixed.

Nodes with HIV infection are enlarged, firm, nontender, and mobile. Occipital node enlargement is common with HIV infection.

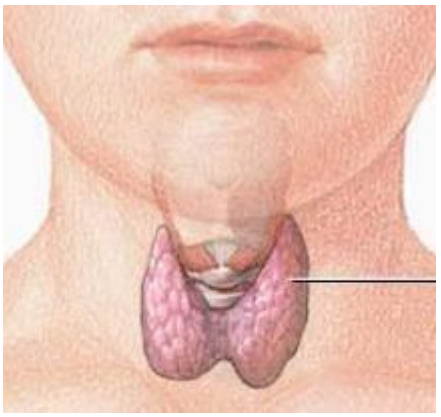
Painless, rubbery, discrete nodes that gradually appear occur with Hodgkin's lymphoma.

Preauricular - In front of the ear
Postauricular - Behind the ear
Occipital - At the base of the skull
Tonsillar - At the angle of the jaw
Submandibular - Under the jaw on the side
Submental - Under the jaw in the midline
Superficial (Anterior) Cervical over and in front of the sternomastoid muscle
Supraclavicular - In the angle of the sternomastoid and the clavicle



Trachea

Normally, trachea is midline, palpate for tracheal shift. The space should be symmetric on both sides. Note any deviation from the midline.



Conditions of tracheal shift:
The trachea is pushed to the unaffected (healthy) side with an aortic aneurysm, a tumor, unilateral thyroid lobe enlargement, and pneumothorax.

The trachea is pulled toward
the affected (diseased) side with large atelectasis, pleural adhesions, or fibrosis.

Appendix

Number	Name	Function	Test
I	Olfactory Nerve	Smell	**Test Olfactory nerve** Ask patient to close his eyes and block one nostril and inhale a familiar aromatic substance through the other nostril Such as (coffee, vanilla, lemon)
II	Optic Nerve	Vision	**Testing visual acuity** Ask patient to sit or stand 4-6m from Sellen-chart and cover the left eye with opaque card .Ask patient to read the letters on one line of the chart and then to move downward to increasingly smaller lines until he can no longer discern all of the letters Repeat the test with the other eye.
III	Oculomotor Nerve	pupil constriction Eye movement;	Test pupillary light reflex, darken the room and ask the person to gaze into the distance. (This dilates pupils) **Test for accommodation** by asking the person to focus on a distant object. This process dilates the pupils. Then have the person shift the gaze to near object, such as your finger held about 7-8 cm from the nose, a normal response is papillary constriction. Record normal response to these maneuvers s PERRLA, or Pupils Equal, Round, React to Light and Accommodation. **Testing eye ball movement** Ask patient to follow the object with his eyes Without moving his head. Nurse moves the object to each of the six cardinal positions, returning to the midpoint after each movement.
IV	Trochlear Nerve	Eye movement	
VI	Abducens Nerve	Eye movement	
XI	Spinal Accessory Nerve	Controls muscles used in head movement.	**Test muscle strength** and the status of cranial nerve XI by trying to resist the person's movements with your hands, as the person shrugs the shoulders and turns the head to each side.

Nursing health assessment documentation format

Head &neck *(adapted from KFSH &RC)*

Instructions: Circle or fill in the blanks with actual physical assessment findings. WNL=Within Normal Limits for age. Mark items which require additional documentation with an asterisk (*) and document in the Nurse's Notes sections of the Daily Nurses Record.

Pt. Identification data

Name---------- Age----- Sex----- occupation ---------- Marital status----------

Tel/Address---------- Known Allergies----------

General Survey

Physical appearance _ WNL, abnormality---------- Body structure _WNL, abnormality----------

Mobility _WNL, abnormality---------- Behavior _ WNL, abnormality----------

Present history

Chief complaint: P---------- P ----------

Q---------- R---------- R----------

S---------- T---------- T----------

T---------- Associated symptoms ----------

Medication ----------

Past history----------

Familyhistory----------

Physical examination

Head

Hair: - Equal in distribution Fine Coarse

Scalp: - Intact / Injury Dandruff Nits

Skull: - Intact / Injury Enlarged /smaller

Eye and vision

Sclera: - Clear Yellow Red

Pupil: - Equal /Unequal

Visual acuity: - WNL impaired distant /near vision

Ear and hearing

Auricle: - **Firm** **Tenderness**

Ear opening: -Discharge

Hearing field; - WNL **Hearing problem**

Nose

Mucous membrane; - Pink /Moist **Red** **Swelling**

Discharge

Mouth

Lips:- **Pink/Moist** **Red** **Bleeding**

Gums **Pink/Moist** **Red** **Bleeding**

Neck

Thyroid gland; **Mass** **Visible**

Lymph node: **Normal** **Enlargement**

COMMENTS:-

_____

_____

_____

_____

Signature:-

Date:-

King Saud University Application of Health Assessment
Collage of Nursing NURS 225

Medical-Surgical Nursing

Performance checklist

Head &Neck

The student nurse should be able to:

Performance criteria	Competency Level						Comment
	Trial 1			Trial 2			
	Done correctly	Done with assistance	Not Done	Done correctly	Done with assistance	Not Done	
-Collect appropriate objective, subjective data about head and neck related to general survey.							
Collect appropriate equipment							
HEAD & FACE							
Inspection							
1- Inspect Skull for size and shape 2- Inspect face for skin color, facial expression and its appropriateness to behavior or reported mood. Shape of facial structures, eyebrows, nasolabial folds. And the symmetry							
PALPATION							
3- To assess shape Palpate the scalp for symmetry tenderness mass and nodules.							
EYE AND VISION							
Inspection							
1- Inspect eye for Size, placement, alignment All three should be symmetrical 2- Inspect pupils for size, shape and symmetry 3- Inspect eyebrows and lashes for symmetry, Distribution of hair and scaling or lesions. 4- Inspect eyelid and lid margins for swelling, discharge color, scaling, erythema. 5- Inspect Conjunctiva sclera for color. 6- Test pupil for accommodation. 7- Test visual acuity							

8- Test Corneal reflex 9- Test Pupil react to light 10- Test Eyeball movement 11- Test Peripheral field acuity							
PALPATION							
- Palpate eyeball for tender and feeling sensation.							
EAR AND HEARNING							
Inspection							
1- Location, Alignment, hygiene, Discharge or odor 2-Inspect ear canal for tympanic membrane, Discharge or redness							
Palpation							
3- Palpate auricle for pain sensation on movement. And texture 4- Palpate mastoid area behind ear for tenderness							
5-Hearing field tests Webers test Rinnes test							
NOSE AND SINUSES							
1- Inspect nose for Shape Symmetry Mucosal Integrity Septum should be straight discharge 2-Inspect for nasal obstruction and air way patency 3- Test Olfactory nerve							
Palpation							
3-Palpate frontal and maxillary sinus for Tenderness.							

MOUTH							
Inspection							
1-Inspect lips, gums, Mucous Membrane for Color, Moist, integrity swelling and ulcer. 2-Inspect the teeth for number and condition. 3-Inspect tongue for size, color, lesions, moisture surface and mid-line protrusion.							
Palpation							
4-Palpate the tongue and floor of mouth with a gloved finger for redness, ulceration, nodules,							
Pharynx							
Inspection							
1- Inspect uvula and pharynx for color moisture and inflammation. 2- Note tonsils for size, inflammation, swelling, discharge. 3- Inspect roof of mouth for color, integrity and architecture of hard palate							
NECK							
Inspection							
1- Inspect the neck for position symmetry range of motion mass 2- Test muscle strength 3- Inspect thyroid gland for size and visible mass. 4- External jugular vein							
Palpation							
Palpate thyroid Palpation of lymph nodes Palpate for Trachea shift							
Document findings following designated format							

Evaluated by: _____Date Evaluated: _____

Name and Signature of Faculty_____Total grade _____