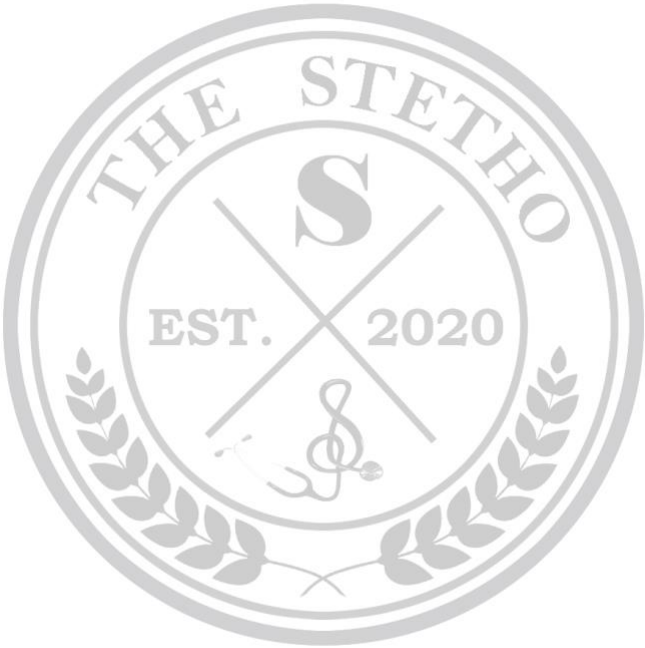
Foundations of Bedside Examination

For Medical Students & House Officers

BY

Dr Hussam Ul Haq & Dr Samreen Bano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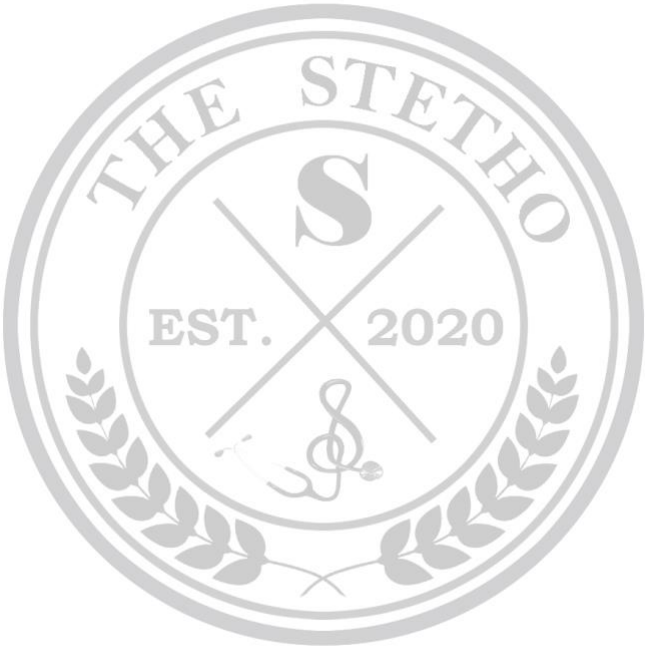
ACKNOWLEDGEMENT

Foremost, I am thankful to God for the good health and wellbeing that were necessary to complete this Book and present a clear picture of what has been done during the book completion. After this I would like to express my sincere gratitude to **THE STETHO medical Publishing forum** to provide me with an opportunity to share my knowledge and add something meaningful to the medical literature.

Dr Hussam Ul Haq & Dr Samreen Bano

"William Osler"

" There are only two sorts of doctors: those who practice with their brains, and those who practice with their tongues"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THYROID EXAMINATION

Patient position: Sitting or standing with neck neutral or slightly extended.

Exposure: Neck exposed.

ORDER OF EXAMINATION:

1. INSPECTION:

6 S for swelling

- Look for Size, Site, Shape, Scars, Surface, overlying skin.
- Ask the patient to swallow water and protrude his tongue and look for the movement of the gland/lump.
- Inspect neck veins.

2. PALPATION:

- Palpation of the gland is done from the back.

- Feel the Temperature of the overlying skin.

- Palpate the edges, look for consistency, Surface, Pulsatility, Compressibility, Reducibility and Mobility of the gland/ lump.

- Palpate cervical lymph nodes.

- You will also feel below the gland for extension.

- Ask the patient to swallow water and protrude tongue while you palpate the gland.

- Palpate trachea: between the two fingers
- Feel carotid pulse.
- Check the relation of gland to sternocleidomastoid.

3. PERCUSSION:

- Percussion of manubrium sterni for retrosternal extension

4. AUSCULTATION:

- Listen for thyroid bruit.

EXAMINATION OF HANDS:

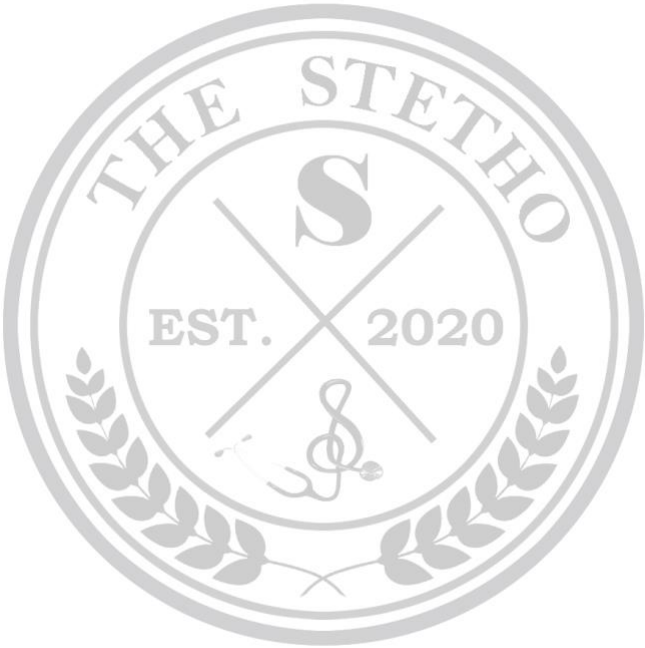
- Skin thickening, Temperature, sweating, tremors, thyroid acropathy, radial pulse, biceps reflex.

EYES:

- Lid retraction, lid lag (Von Graefe's sign), and exophthalmos
- Stellwag sign: widening of palpebral fissure
- Mobius sign: difficulty in convergence of eyes when looking to near objects.
- Joffroy's sign: absence of wrinkling of forehead.

LEGS:

- Pretibial myxedema, knee reflex, proximal myopathy.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DIABETIC FOOT EXAMINATION

EXAMINATION STEPS:

1. INSPECTION:

Gait: Ask the patient to walk to the end of the room and back. Pay attention to the following:

Speed of gait: reduced gait speed signifies peripheral neuropathy.

Stance: Broad based gait points towards peripheral neuropathy.

High stepping gait: foot drop.

Ask the patient to lay down on the couch and inspect the lower limbs:

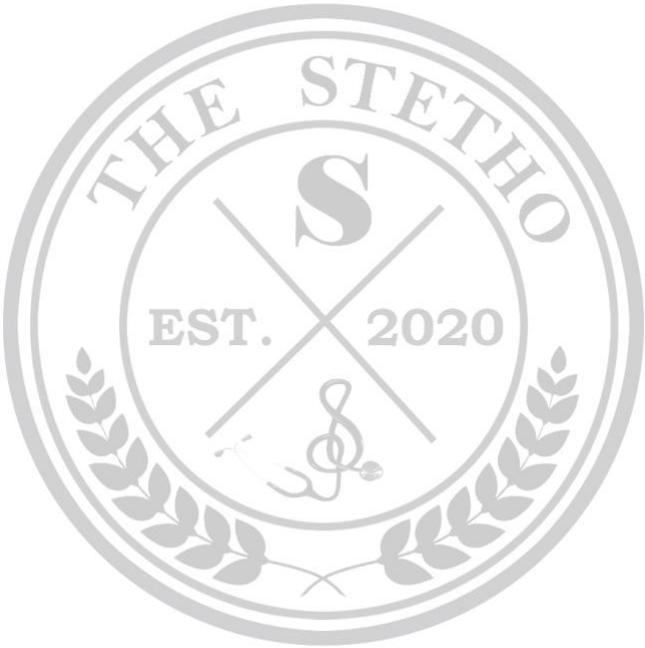
Look for peripheral pallor and cyanosis, scars, hair loss, joint deformities, calluses and venous guttering.

Specifically look for hidden ulcers between the toes and posterior aspect of heels.

2. PERIPHERAL PULSES:

Palpate posterior tibial pulse (posterior and inferior to medial malleolus) and dorsalis pedis pulse (lateral to extensor halluces longus tendon)

Charcot Joints: defined as bone and joint changes that occur secondary to loss of sensation and is most often associated with diabetes.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NEUROLOGICAL EXAMINATION:

MOTOR EXAMINATION:

1. TONE:

Leg roll: Ask the patient to relax his/her lower limbs and then roll them from side to side. These asses the tone of muscles around hip of joint.

Lift knee: briskly lift patient's knee. The heel will lift off the bed in case of increased tone.

Clonus: Position the patient's leg so that the knee and ankle are slightly flexed, supporting the leg with your hand under their knee, so they can relax. Rapidly dorsiflex and partially evert the foot to stretch the gastrocnemius muscle. Keep the foot in this position and observe for clonus, which is a set of rhythmic involuntary contractions and relaxation of muscles

specifically associated upper motor neuron lesions.

2. POWER:

- The power of the lower limbs is assessed by the following:

- Hip joint movements:
- Ask the patient to flex hip while you exert opposite force on anterior thigh.

- Ask the patient to extend hip while you exert opposite force on posterior thigh.

- Knee movements: Patient will flex the knee while you exert opposite force on leg.

- Patient will extend the knee while you oppose this movement.

- Ankle movements: Ask the patient to dorsiflex and plantarflex the ankle joint while you oppose these movements in opposite direction.

- Big toe movement: Ask the patient to extend the big toe while you push it down.

3. ANKLE REFLEX:

Asses the patient's ankle reflex (S1) by striking the Achilles tendon, keeping the knee flexed and ankle slightly dosriflexed. Observe the contraction of gastrocnemius tendon and plantarflexion of foot.

Ankle reflex is absent in advanced peripheral neuropathy.

4. SENSORY EXAMINATION:

Asses the following sensations:

Monofilament.

Vibration.

Light touch.

Pin prick.

Provide an example of all the above sensation on patient's arm or sternum before checking the lower limb sensation.

Check the following areas and ask the patient to report when he/she appreciate the sensation.

Pulp pf hallux.

Pulp of third digit.

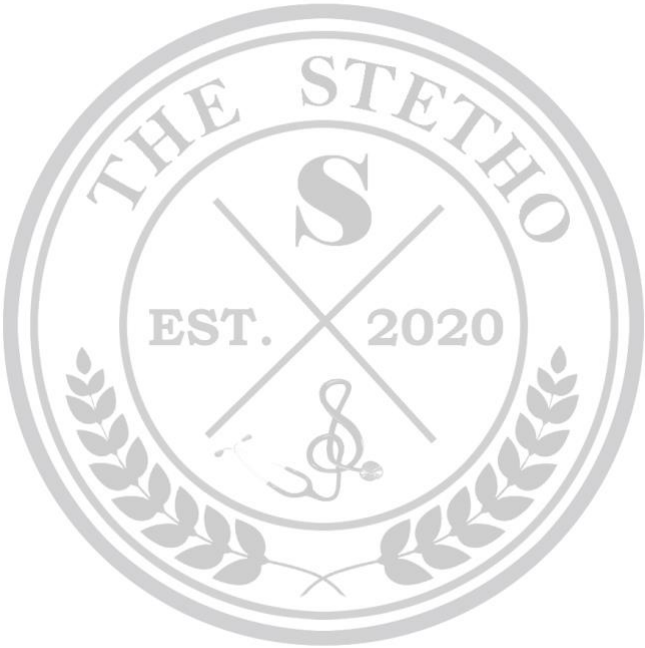
Metatarsophalangeal joints.

Proprioception: Proprioception is joint position sense and asses the dorsal columns.

Hold the distal phalanx of big toe from sides and initially demonstrate it to the patient by moving the big toe up and down while he watches. Then ask the patient to close his/her eyes and randomly move the big toe up and down and ask the patient which direction the toe is pointing.

5. COORDINATION:

Heel to shin test: Ask the patient to place their left heel on their right knee and then run it down their shin in a straight line. Then ask them to return their left heel to the starting position over the right knee. Now ask them to repeat this sequence of movements in a smooth motion until you tell them to stop.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ABDOMINAL EXAMINATION

Position of patient: lying on bed.

Position exposure: Nipple to mid-thigh.

General physical examination:

Start by looking at the general look of the patient, look around for any bed side medications, monitor, and oxygen.

Hand shake with the patient and feel the temperature, sweating, clubbing, leukonychia, koilonychias, skin thickness, check radial pulse, blood pressure.

Check eyes for pallor and jaundice.

Check the oral hygiene, dehydration and central cyanosis in the mouth.

Look for distended neck veins, jugular venous pulse and carotid pulsations.

Spider naevi, purpura and petechiae and gynecomastia.

Look for lower limb edema and calf tenderness.

1. INSPECTION:

Inspect the patient abdomen from bed end, look for the position of umbilicus, distension, any visible swellings, pulsations, scars, striae, and caput medusa.

Also inspect the hernia orifices. If you suspect any hernia then ask the patient to cough and lift

his/her head off the bed to make it more prominent.

2. PALPATION:

Palpation of the abdomen consist of superficial and deep palpation of all the 9 quadrants, liver, spleen and kidneys.

Before palpation ask the patient if there is any pain anywhere in the abdomen and palpate that area in the end.

While doing palpation, continuously look at the patient's face for any signs of pain while you palpate.

Superficial palpation: Superficially palpate all the quadrants and feel for any lump or masses.

Deep palpation: Ask the patient to take deep breaths while you dip your fingers deep when the patient exhales. Palpate all the quadrants.

For liver: start palpation in right iliac fossa going up towards the liver, if you feel the liver edge below costal margin measure it.

For spleen: start palpation from right iliac fossa going diagonally towards the left hypochondria.

Bimanual palpation of kidneys: bimanually palpate the kidneys to see for ballottement.

Hernial orifices: Palpate the hernia orifices, ask the patient to cough and lift head off the bed, feel for the defects.

3. PERCUSSION:

Percuss the liver starting from 2nd intercostal space. Add it to the measurement obtained on palpation to find the total liver span.

Percuss the spleen.

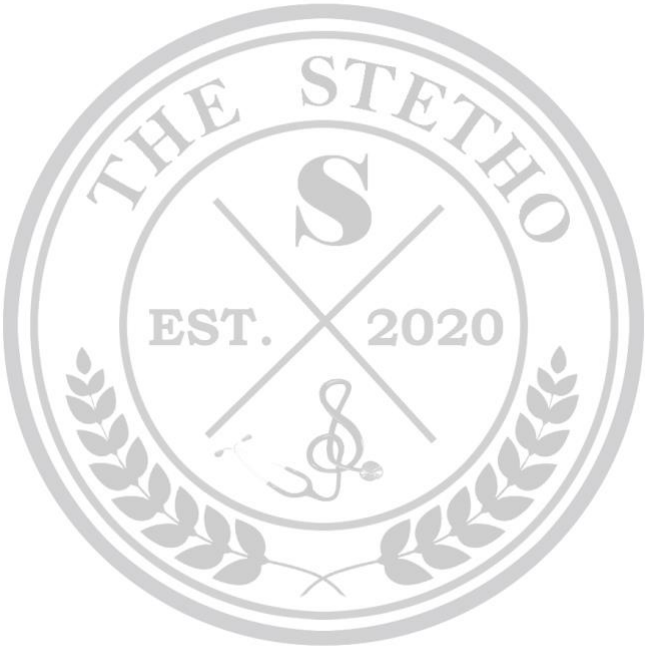
Fluid thrill and succession splash for ascites.

Percuss urinary bladder.

4. AUSCULTATION:

Auscultate the bowel sounds by placing the stethoscope over the left iliac fossa.

Auscultate liver bruit, aortic and renal bruits.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CARDIOVASCULAR EXAMINATION

General inspection of patient:

Start by looking at the general look of the patient, look around for any bed side medications, monitor, and oxygen.

Hand shake with the patient and feel the temperature, sweating, clubbing, tar staining, capillary refill, leukonychia, koilonychias, splinter hemorrhages, janeway lesions, skin thickness, check radial pulse, radio-radial delay blood pressure.

Check eyes for pallor.

Check the oral hygiene, dehydration and central cyanosis in the mouth.

Look for distended neck veins, jugular venous pulse and carotid pulsations.

Look for lower limb edema and calf tenderness, vein graft harvest scars.

1. **INSPECTION**:

Ask the patient to put his/her hands behind the head.

Inspect from side of the bed and from the end.

Look for any scars (sternotomy, thoracotomy, infraclavicular), visible apex beat.

2. PALPATION:

Apex beat: Palpate the apex beat with your fingers. Apex beat is located in the 5th intercostal space, midclavicular line. Lateral displacement suggests cardiomegaly.

Heaves: Palpate any heaves present due to right ventricular hypertrophy by placing your palm parallel to left sternal edge and feel for your hand being lifted with each systole.

Thrill: Thrill is a palpable murmur. Asses for thrill across each heart valve by placing your hand horizontally across each the chest wall with palm over the valve to be assessed.

3. AUSCULTATION:

Time the cardiac cycle by placing your left hand on the carotid pulse.

Mitral area: 5th ICS midclavicular line.

Tricuspid area: 4th ICS parasternal edge.

Pulmonary area: 2nd ICS parasternal.

Aortic area: 2nd ICS right parasternal edge.

Pan systolic murmur radiates to axilla.

Ejection systolic murmur radiates to carotids.

Accentuation maneuvers: There are certain maneuvers which makes the murmurs louder during expiration.

Mitral murmurs: roll the patient to the left and listen to mitral area with bell of stethoscope for mitral stenosis and regurgitation.

Aortic murmurs: lean forward and listen to aortic area during expiration for aortic regurgitation.

Auscultate the carotid arteries with the patient holding their breath to check for radiation of an aortic stenosis murmur.

Metallic heart sounds:

One metallic heart sound corresponds to S1: mitral valve replacement.

Two metallic heart sounds correspond to S2: aortic valve replacement.

Palpate all the four valve areas mentioned above with the diaphragm and then bell of stethoscope.

Carotid bruit: Ask the patient to hold his/her breath, place your stethoscope over carotid arteries to listen for carotid bruit.

Lung bases: Auscultate the lung bases from the back.

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RESPIRATORY EXAMINATION

General inspection of patient:

Bed side medications, O2 supply.

Hands: Tar staining, clubbing, radial pulse, peripheral cyanosis, bruising or thin skin, temperature, fine tremors and asses for asterixis.

Eyes: Conjunctiva for pallor.

Mouth: Central cyanosis

Neck: Lymph nodes, JVP, position of trachea.

INSPECTION:

Look for chest shape, any chest wall deformities, and visible scars (thoracotomy, sternotomy, and chest tube site) pulsations.

Look for bilateral chest expansion.

Inspect the patient from sides and bed end.

PALPATION:

Palpate apex beat.

Chest expansion: Wrap your fingers around the patient's chest, below nipples, with thumbs together in the midline. Ask the patient to take deep breaths. Your thumbs should move apart equally suggesting equal air entry on both sides.

Reduced expansion: Lung collapse, pneumonia.

Tactile vocal resonance: Place your hands bilaterally on the following areas and ask the patient to say 99 every time you place your hands (for Arabic speakers 44).

Supraclavicular

Infraclavicular

Chest wall (3-4 areas)

Axilla

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PERCUSSION:

Percuss the above areas and listen for any abnormal sounds. Resonant percussion is normal.

Dull: consolidation, collapse.

Stony dull: Pleural effusion.

Hyper-resonant: Pneumothorax.

AUSCULTATION:

Ask the patient to take a deep breath every time you put your stethoscope on the patient's chest. Asses the areas mentioned above. Vesicular breathing is normal.

Inspiratory stridor: upper airway obstruction

Wheeze: asthma, COPD.

Coarse crackles: Pneumonia, pulmonary edema.

Fine crackles: Pulmonary fibrosis.

Repeat the above steps but this time ask the patient to say 99 every time you put your stethoscope on the patient's chest (44 for Arabic speakers). This is called vocal resonance.

Increased vocal resonance: Consolidation, collapse, tumor.

Decreased vocal resonance: Pleural effusion.

Examination from back:

Repeat all the above examination steps but this time examining the patient from back.

In the end, asses for sacral edema and pedal edema.

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CEREBELLAR EXAMINATION

Assess Gait: Ask the patient to walk to the end of the room and observe stance and stability.

Ask him/her to walk towards you with heel to toe in a straight line. This is called tandem gait and any unsteadiness if present will be exaggerated with this.

Romberg's test: Ask the patient to close his/her eyes with hands by side of the body, you will be standing by the side to prevent him/her from falling down to any side. Positive Romberg's test indicates that the unsteadiness is due to a sensory ataxia (damage to dorsal columns of spinal cord) rather than a cerebellar ataxia)

Now ask the patient to sit down and observe the posture to look for any truncal ataxia.

Speech: Ask the patient to repeat the following words

British constitution

Baby hippopotamus

And observe any slurred staccato speech which is characteristic of cerebellar disease.

Eye Movements: Assess for nystagmus while you ask the patient to follow your finger while you move it in all quadrants in H shape.

Nystagmus if present --- look for direction of nystagmus and direction of gaze.

Coordination: Finger to nose test --- Ask the patient to touch his/her tip nose and then tip of you index finger while you hold it in front of the patient. Repeat it few times with both hands and look for past pointing. If past pointing is present, this suggests cerebellar disease.

Upper Limb Tests:

Rebound phenomenon:

Ask the patient to close eyes, stretch out arms in front and keep it in that position while you try to press them down and release your hands.

Positive test: Patient's arms will shoot above the original position suggesting cerebellar disease.

Pronator drift: Ask the patient to close eyes, arms stretch out in front with palms facing upwards. Observe for any pronation or any slow upward drift in one arm suggesting ipsilateral cerebellar disease.

Intentional tremors: Place any object in front of the patient and ask him/her to pick it up with one hand and then the other. Observe any tremors while he/ she tries it pick it up. This is called

intentional tremors suggesting cerebellar disease.

Dysdiakokinesia: Ask the patient to place palm of one hand on the palm of the other hand and alternatively flap the sides of upper hand on the lower hand palm 4-5 times. Repeat it on the other side. Inability to perform this test suggests cerebellar disease.

Reflexes: Assess the following reflexes … Reflexes will be less brisk and slower in their rise and fall in case of cerebellar disease.

Biceps --- C5-6

Triceps --- C6-7

Supinator --- C6

Lower limb tests:

Tone: Look for any hypotonia in case of cerebellar disease.

Leg roll: Ask the patient to lie down on the couch and relax lower limbs while you roll them from side to side and assess the tone.

Leg lift: Briskly lift each leg at knee joint --- heel should remain on the bed.

Reflexes:

Assess ankle (L5-S1) and knee reflexes (L3-4)

Coordination:

Heel to shin test: Ask the patient to put right heel on the left knee and slide the heel down to the left ankle. Repeat these movements 3-4 times. Do it on the other side as well and assess the coordination.

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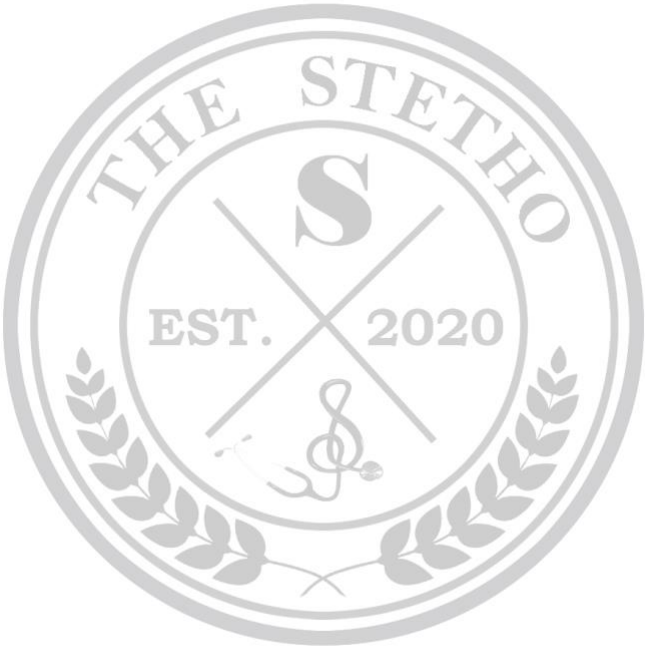
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UPPER LIMB NEUROLOGICAL EXAMINATION

POSITION: Sitting on couch

EXPOSURE: Arms exposed from shoulder to hands

GENERAL INSPECTION:

Look for patient's posture, any mobility aids and bedside medications.

1. **GENERAL INSPECTION** of patient involves:

S W I F T

S: Scars

W: wasting

I: involuntary movements

F; Fasciculation

T: Tremors

2. **Pronator drift:**

Ask the patient to extend his/her arms and close eyes. Look for any pronation and downward movement of upper limbs. Pronator drift if positive ---- Contralateral CST lesion.

3. **Tone:**

Ask the patient to relax the arms, leave them floppy and you move their arm in different directions at wrist, elbow and shoulder joint.

Increased tone: Stroke --- spasticity

Parkinson's --- Cogwheel rigidity

Decreased tone: lower motor neuron lesion

Cerebellar disease.

4. **Assess Power:**

Ask the patient to lift his/her arm and resist the movements you perform at his/her joints in opposite directions. Test the power while you perform the following movements along the joints:

Shoulder: Abduction, Adduction

Elbow: Flexion, extension

Wrist: Flexion, extension

Fingers: extension, abduction

Thumb: Abduction

5. **Reflexes:**

Assess the following reflexes:

Biceps --- C5/6

Supinator --- C5/6

Triceps --- C7

6. **Light touch sensation:**

Take a cotton wool and place it on patient's sternum with his eyes open and ask the patient if

he can feel it. After that ask him/her to close eyes and say yes, every time he feels the cotton wool while you place it on all the dermatomes of his/her upper limb with his/her eyes closed. Also check if he feels it equally on both sides.

Check all the dermatomes --- C4, 5,6,7,8 T1

Light touch sensation is for dorsal columns and spinothalamic tract.

7. **Pin prick:**

Repeat the above procedure but this time using sharp end of neurotip.

This test is done for spinothalamic tract.

8. Vibration:

Use 128 Hz tuning fork

Repeat the above procedure, ask the patient when he feels vibration and when it stops.

Check all the dermatomes

This test is for dorsal columns.

9. Proprioception:

Proprioception is joint position sense and asses the dorsal columns.

Hold the distal phalanx of thumb from sides and initially demonstrate it to the patient by moving the thumb up and down while he watches. Then

ask the patient to close his/her eyes and randomly move the thumb up and down and ask the patient which direction the thumb is pointing.

10. Coordination:

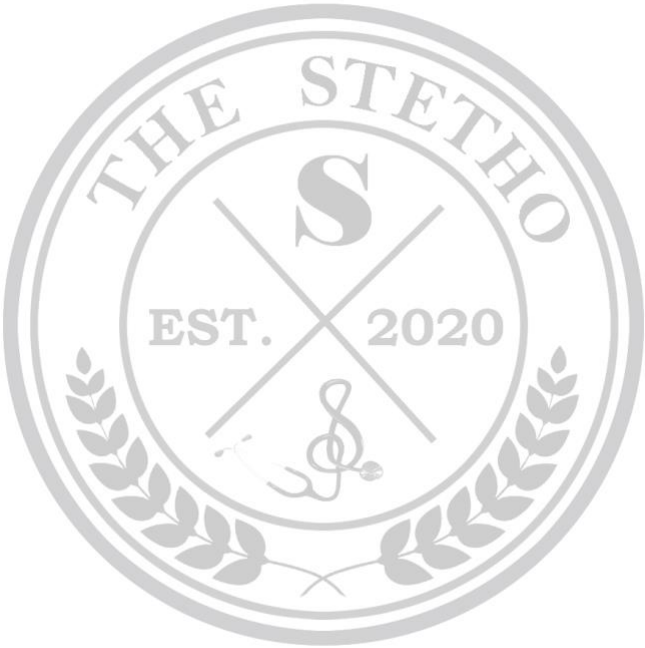
Finger to nose test --- Ask the patient to touch his/her tip nose and then tip of you index finger while you hold it in front of the patient. Repeat it few times with both hands and look for past pointing.

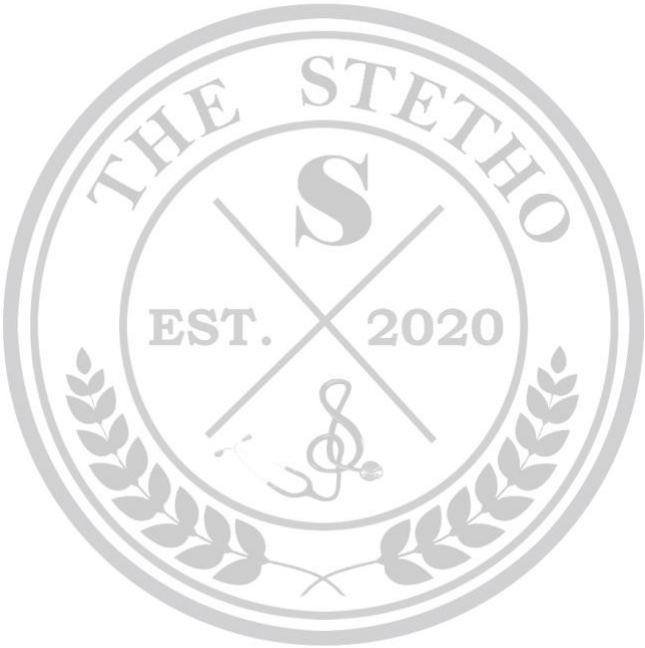
If past pointing is present, this suggests cerebellar disease.

11. Dysdiadochokinesia:

Ask the patient to place palm of one hand on the palm of the other hand and alternatively flap the sides of upper hand on the lower hand palm 4-5

times. Repeat it on the other side. Inability to perform this test suggests cerebellar disease.

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BREAST EXAMINATION

PATIENT POSITION: sitting then supine

EXPOSURE: Chest and abdomen

Always ask for a chaperon when doing breast examination.

ORDER OF EXAMINATION:

Inspect the patient's both breast with his/her arms in the following positions:

Arms by sides:

Scars --- biopsy, lumpectomy, mastectomy scars.

Asymmetry --- healthy breasts are often asymmetrical.

Skin changes --- Erythema, infections, puckering (underlying mass), peau d' orange (cutaneous edema), superficial malignancy, inflammatory ca.

Nipple changes --- compare both nipples, look for position, retraction, and discharge.

Mass - any superficial mass.

Ask the patient to put arms on hips and press forwards.

This will contract pectoralis muscle. If there is any mass, inspect if it moves with pectoralis muscle. This is called tethering, which signifies invasive carcinoma.

1. Ask the patient to put hands behind head and push elbows back --- look for any skin dimpling, puckering.

2. Ask the patient to lean forward with hands in the same position --- this will exacerbate any dimpling if present.

3. Ask the patient to place his/her arm on your shoulder and press against it --- tense serratus anterior muscle.

PALPATION:

Position the patient supine on bed with 45-degree angle.

Palpation is done superficial then deep in clockwise manner starting from nipple till axillary tail.

Palpation is done with the palmer surface of fingers.

Examine the normal asymptomatic breast first.

Always ask the patient if there is any tenderness anywhere in the breast before starting palpation.

If there is any lump or mass, examine the whole breast first and coming to the lump/mass at the end.

If there is any mass/lump, look for the following:

Site

Temperature

Tenderness

Size

Surface

Fixity --- to skin and to underlying muscle by after tensing the chest muscles --- always check fixity in two directions.

Margins

Consistency

Nipple discharge:

Ask the patient to squeeze the nipple to look for any discharge.

If there is any discharge, look for the color and whether it's single duct or multiple duct discharge.

Type of Discharges:

Discharge from a single duct:

- Intraductal papilloma
- Ductal papilloma
- Intraductal carcinoma
- Ductal hyperplasia

- Duct ectasia
- Duct ectasia
- Ductal carcinoma (in situ and invasive)

Discharge from more than one duct:

BLOOD-STAINED, BLACK, GREEN, MUDDY, PURULENT

Carcinoma, Duct ectasia, Periductal mastitis, Duct ectasia

Milk:

Lactation

Galactorrhea

Rare causes --- Hypothyroidism, pituitary tumor.

Discharge from surface (not from within the nipple)

- Paget's disease
- Skin disease (eczema, psoriasis)
- Rare causes (e.g., chancre)

Palpation of Axilla:

Palpation of axilla is done in sitting position. Ask the patient to sit on the edge of the couch facing towards you.

Support the patients arm on the side being examined with your forearm. To examine the patient's right axilla, use your right arm to support the patient's and vice versa.

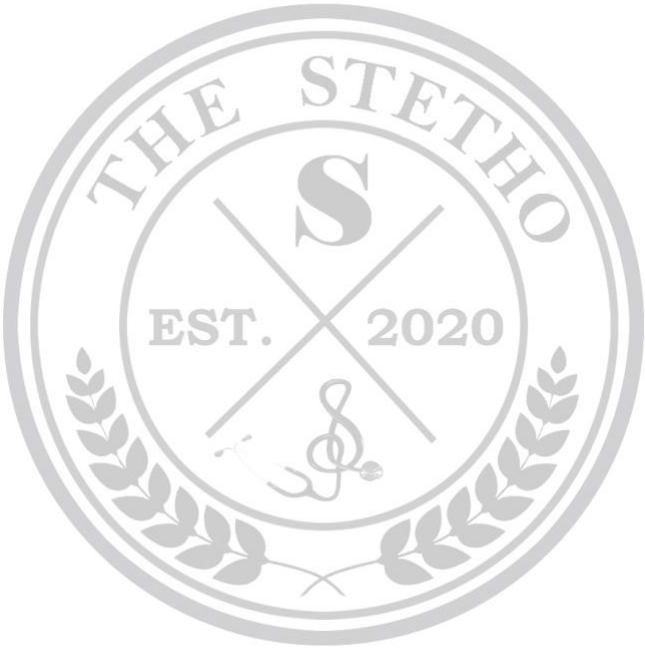
Palpate the axilla for any mass. Palpate all groups of axillary lymph nodes --- anterior, posterior, lateral, central, interpectoral, and apical.

If any palpable lymph node --- look for site, size, fixity.

Regional lymph nodes:

Palpate infraclavicular, supraclavicular and cervical lymph nodes.

In the end do abdominal examination --- for any liver metastasis in case of breast cancer and do spine examination --- for any bone metastasis.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TESTICULAR EXAMINATION

INSPECTION:

Thorough inspection of penis from all sides. Inspect scrotum from all sides including posterior side. Look for any erythema, any obvious mass, scars or ulcers.

Look for position of testis on both sides. In testicular torsion, the affected testis is elevated or lying horizontally.

PALPATION:

Before starting palpation ask the patient if there is any pain or tenderness in penis or scrotum.

Palpate each testicle individually. Palpation is done in bimanual manner using both thumbs and fingers.

If there is any abnormality, always examine the normal side first. If any pain, always come to painful area at the end. Palpate the epididymis and spermatic cord as well.

If there is any palpable mass, look for the following

1. Site, size, shape, consistency, contour, tenderness, temperature.
    a. Solid and firm--- tumor
    b. Bag of worms feeling --- varicocele

2. Check if the testis could be separately felt or not.
    a. Mass arising from testis --- not felt separately

3. Check if you can get above the swelling or not.
    a. Can get above the swelling --- Hydrocele, epididyamal cyst,

varicocele, epididymo-orchitis, and testicular tumor.

b. Cannot get above the swelling --- inguinal hernia

4. Do trans-illumination test.
    a. Trans illumination test positive --- hydrocele, spermatocele
    b. Trans illumination test negative --- hematocele, tumor

5. Ask the patient to cough. See if the cough impulse is positive --- hernia

SPECIAL TESTS:

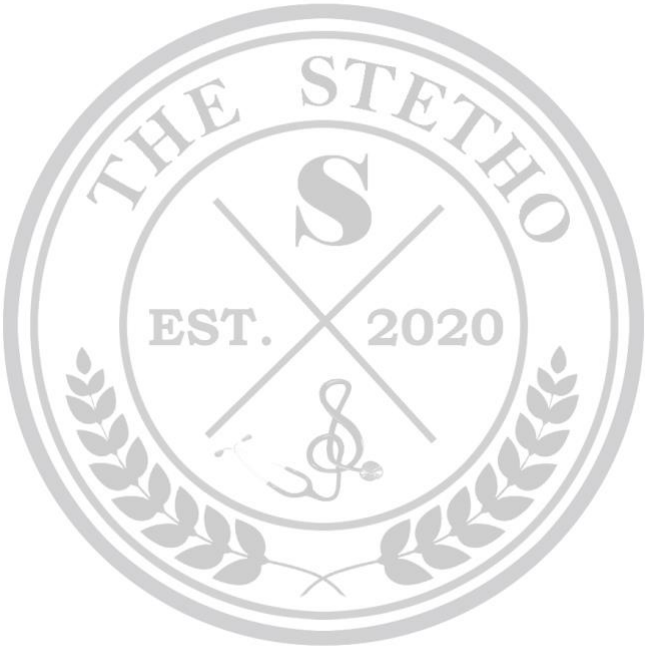
Phren's test: Testis elevation test.

If testicular pain is relieved by elevating the testis-Epididymitis.

If testicular pain increases on elevating the testis-testicular torsion.

Cremaster reflex:

Stroke or pinch the medial aspect of patient's thigh, this will lead to stimulation of cremaster muscle and testis will elevate. This is called cremasteric reflex and it is absent in testicular torsion.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GENERAL PHYSCIAL EXAMINATION

Wash your hands and introduce yourself to the patient.

Explain the examination and obtain a permission from the patient for examination.

PATIENT POSITION: Lying on couch at 45-degree angle.

GENERAL APPEARANCE:

General physical examination starts with looking at the general appearance of the patient. Look for the patient's body built, any signs of distress or pain on patient's face.

Look for any cannulas, CVP line, Oxygen mask etc. attached to the patient.

Look around the bed for any oxygen cylinders, medication chart any ongoing infusions.

EXAMINATION OF HANDS:

Examine both hands. Feel for temperature, sweating, skin texture, any signs of nicotine staining or cyanosis.

>The Skin is dry, itchy scaly in hypothyroidism whereas sweaty in hyperthyroidism.

> In smokers, the finger tips are usually stained with a yellowish brownish tinge.

NAILS:

Look for splinter hemorrhages --- thin reddish to brownish lines under the nails --- pathognomonic of infective endocarditis.

Leukonychia --- White discoloration of nail plate --- caused by liver diseases, ulcerative colitis, nephritic syndrome.

Koilonychias --- Indented spoon shaped nails --- present in iron deficiency anemia.

Clubbing --- wide sponge like swollen nails due to soft tissue swelling of distal phalanx.

Schamroth Sign: Schamroth window test is done to detect clubbing. Ask the patient to bring the nail beds of his two index fingers together and look for the diamond shaped window formed between the nail beds. Obliteration of this window signifies fingers clubbing.

Clubbing is present in conditions such as cystic fibrosis, congenital heart diseases, IBD etc.

PALM:

Osler nodes--- painful, red, raised lesions on palms and soles.

Janeway lesions --- Non tender, erythematous popular nodules on palms and soles.

Osler nodes and janeway lesions are found in infective endocarditis.

Palmar xanthomata --- Yellow orange discoloration of palmar and wrist creases --- found in hyperlipidemia.

Palmar erythema --- redness of palmar aspect of hands --- found in various conditions like liver cirrhosis, polycythemia, and pregnancy.

Whereas paleness of the palmar creases is a sign of anemia.

Pigmentation of palmer creases --- Addison's disease

Dupuytren's contracture --- a condition in which one or more fingers of the hands are contracted or pulled in towards the palm because of the thickening of the palm skin --- sign of alcoholism.

Raynaud's phenomenon --- it is a condition in which the fingers of the goes through a series of changing color because of an abnormal response of cold. Initially becoming white due to ischemia, then turning blue due to cyanosis and finally red when revascularized.

Also look for any muscle wasting, acromegaly hands and any scars or skin lesions, tremors.

FLAPPING TREMORS: Ask the patient to extend his/her arms and raise the wrists to 90 degrees for few seconds and look for any flapping of his hands. This is called flapping tremors and is a sign of CO2 retention.

PULSE: Measure the radial pulse for one min. Measure the rate, rhythm, compare with other hand radial pulse to look for any radio-radial delay. Also compare with femoral pulse for radio-femoral delay.

BLOOD PRESSURE: Measure the patient's blood pressure in both arms.

AXILLA: Examine the axilla for any lumps/axillary lymph nodes.

SCALP: Examine the scalp. Look for the quality of hair and alopecia--- thin coarse scanty hair-hypothyroidism.

EYES: examine the conjunctiva for pallor-anemia Sclera for yellowish discoloration-jaundice.

MOUTH: Dental and oral hygiene, dryness.

Any ulcers or lesion in mouth --- apthous ulcers, ulcers in IBD, celiac disease, Behects ulcers.

Look for gum hypertrophy --- in pregnancy, use of phenytoin, gingivitis, Scurvy.

Look for central cyanosis: ask the patient to open his mouth and lift his tongue and look for bluish discoloration of mucosa suggesting central cyanosis.

Characteristic smell in certain diseases:

Fetor hepaticus: sweet smell in liver diseases.

Uremic fetor: fish breathe in renal failure.

NECK: Examine all neck nodes.

Examine thyroid for any abnormality.

Examine salivary glands.

TRUNK: Briefly examine the chest and abdomen for any visible pathology, scars, swellings, visible blood vessels.

Examine the abdomen for orgnomegaly, hernia, ascites, abnormal bruit or any other pathology.

Examine the inguinal region for any swellings, palpable lymph nodes, inguinal or femoral hernias.

LEGS: Look for lower limb edema, if present, unilateral or bilateral, pitting or non-pitting.

Look for any skin changes, temperature.

Examine the peripheral pulse (popliteal, posterior tibial, dorsalis pedis)

Examine the foot for any change in nails, dorsal or plantar aspect of foot.

BACK: Examine the back looking for sacral edema.