PRESENTED BY

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PHYSICAL EXAMINATION

DEFINITION:

It is the systematic collection of objective information that is directly observed or elicited through the examination techniques.

GENERAL ASSESSMENT:

Introduction:

- ✓ It is carried out in an orderly manner focusing upon one area at a time.
- ✓ The observation of the patient starts as the patient's walk into the examination room.

  Eg : Lymph may be noted

❖ **General Appearance**

- ✓ Nourishment –Undernourished / well nourished / mal nourished
- ✓ Consciousness –Unconscious Conscious Semiconscious / Coma
- ✓ Orientation – Orient to time, place, person
- ✓ Signs of distress – Pain, dyspnoea
- ✓ Body bruit – Thin, obese (or) moderate
- ✓ Posture & Gait– Co-ordinator, Unco-ordinated, Normal

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- ✓ Body movements – Purposeful, tremors, immobile
- ✓ Hygiene & grooming– Neat, appropriate, unhygienic
- ✓ Mood & effect– Stable, stressed (or) depressed, swings
- ✓ Facial expression – Smiling (or) black, sad
- ✓ Speech – Understandable (or) paused (or) rapid (or) slow

Physiological Assessment :

- **Vital Signs :**
  - Temperature
  - Pulses
  - Respiration
  - Blood Pressure
- **Measurements :**
  - Height
  - Weight
  - Circumference – mid arm in children, head & Chest.

    (Incase of abdominal distension check the abdominal birth)
  - BMI

To Take Height & Weight :

- To measure the length of the baby who cannot stand.

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- Place the baby on the hot surface, with the souls of the feet supported in an upright position.
- The knees can be extended & measurement is taken from the souls of the feet to vertex of the head.
- Head should be in a such position that eyes are facing the ceiling.
- After a child can stand height can be measured if the child with heels back & head against the wall.
- A Small flat board held from the top of the head & to the wall & it gives an accurate measurement that is distance from the floor to board.

Weight :

- The weight of a person who can stand generally measured by standing scale.
- In that patient stands on the platform & note the weight on the dial. Usually the weight is taken without the shoes.

Weight of the body :

- Used by baby weighting scale in that there is a container where the baby can be laid.
- It is important to weight the baby by unclothed. If weighed with cloth then weight the cloth separately & subtract this weight from the baby's weight.

BMI (Body Mass Index)

- Under weight : 18.5 (or) less
- Normal weight : 18.5 to 24.9
- Normal weight : 25.0 to 29.9
- Obese : above 30

HEAD TO TOE EXAMINATION :

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Skin : -

Inspection of the skin :

Pallor : It results in decreased amount of circulating flood or hemoglobin causing inadequate oxygenation of body tissues.

Colour of the skin :

- Pink
- Black
- Brown
- Fleshing

Abnormality :

Erythema

- Redness of the skin
- Due to dilation of superficial flood vessels

Vitiligo - White patches of the skin due to deep pigmentation

Cyanosis - Bluish or grayish discoloration of the skin due to inadequate oxygenation.

Jaundice / Icterus - Yellowish discoloration of theskin, eyes.

- Results from elevated amount of bilirubin in the flood.
- Its associated with liver & gall bladder diseak

Petechiae - red or brown spot on the skin

Ecchymosis - Discoloration of the skin due to bleeding into the tissues.

Palpating the Temperature, Moisture, Texture, Turger & Edema.

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- **Temperature :**
- (Warm, Cold, Feverish, Clammy)
- **Texture :**
- Smoothness, Roughness, Thickness, Dryness
- **Moisture :**
- (Oily skin, Dry skin, Moist skin, Excessive sweating)
- **Turger :**
- Normal, Wrinkled skin or decreased elasticity. It can be assessed in Torearm, Sternum, under the clavicle.
- Skin with decreased turgor remains elevated after being pulled up & released.
- **Edema : (Dependent Edema)**
- It is the abnormal accumulation of fluid in the body or certain tissues within the body. usually in legs.
- **Pitting Edema :**
- Observable swelling of body tissues due to fluid accumulation that may be demonstrated by applying pressure to swollen areas.

GRADES OF PITTING EDEMA

- Grade O : (none)
- Grade +1 : (trace, 2mm)

  [Disappear rapidly]
- Grade +2 (moderate, 4mm)

  [10 – 15 sec]
- Grade +3 (deep, 6 mm)

  [≥ 1 min]
- Grade +4 (very deep, 8 mm)

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[2 – 5 min]

Periorbital edema :

Puffyness of the skin, swelling around the eyes.

Inspecting skin integrity

- Intact – healthy skin in which there is no breaks, cut, abnormal openings.
- Lesions – Abnormal appearance or ulcer on the skin. It is an abnormal damage or injury.

i) Macules :

Discolored spot or area on the skin that is not elevated above the surface.

ii) Papules :

A small solid usually conical elevation of the skin caused by inflammation, accumulated, secretion or small pimples.

iii) Vesicles :

A small abnormal elevation of the outer layer of skin enclosing a watery liquid: blister

iv) Pustules :

A small blister or pimple on the skin containing pus.

- Birth mark
- Rashes : Red spot on the skin
- Scares

Nail :

Inspecting the Nail :

- Cleanliness, Smoothness

Shape of the nail : Convex

Angles : Between nail & its base is 160 degrees

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Colour : Pinkish nail bed with translucent white tips

Capillary refill time : Less than 2 seconds

In newborn infants, capillary refill time (CRT) can be measured by pressing on the sternum for 5 seconds with a finger or thumb, or noting the time needed for the colour to return once the pressure is released.

Texture : Smooth, nail should be non – tender

Abnormality :

Brittle nail :

- Nail should be hard but fragile
- Due to repeated wetting & drying of finger nails

Splitting of nails (or) onychoschizia :

Nail become cracked, splitted.

Clubbing of the finger nails

- Change in angle between nail and nail bake (eventually > than 180°)
- Enlargement of the finger tips
- Due to chronic lack of Oxygen

Koilonychias :

- Spoon like nails & concave curves

  Due to iron deficiency anemia, use of strong detergents

Paronychia :

- Infection of the nail margin
- Due to local infection, trauma splinter haemorrhages

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- Red (or) brown linear streaks in made bed
- Due to minor trauma

Beau's lines :

- It means horizontal or transverse depressions in the nail (they can be seen in the fingernails, thumbs, toenails, or all nails).

HEAD AND SCALP

Skull : Normal Shape, Contour, Size, Shape

Abnormal Findings : Hydrocephalus

- Enlargement of the head due to CSF accumulate in the brain.

Acromegaly : Enlargement of the jaws & facial bones

- Extra growth

Due to excess growth hormone secretion

Nodules : A abnormal growth of tissues due to inflammation (Nodules / Masses / Lump) small swelling.

Inspect the Scalp :

- Cleanliness, Colour, Dryness
- Lump, Lesions
- Lice (pediculus humanus capitis)
- Dandruff etc
- Lump (Compact mass with indefinite shape)
- Lice (either of two small wingless parasitic insects that live on the skin)

Assessing Hair & Scalp :

Colour, Straight, Curly Hair, Brittle hair

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Texture & Distribution

Thickness & Lubrication of hair

Abnormalities :

Alopecia : It is a type of hair loss that occurs when immune system mistakenly attacks hair follicles.

Hirsutism: It is the abnormal growth of hair in unusual arcas on a women's face & body.

Inspecting the face :

Symmetry, shape, disfigurement, facial expression

Eyes :

Inspecting the external eyes :

Inspecting the eyebrows :

- Shape (curved / straight / thin / thick / sparse – very thin)

Inspecting the eye lashes :

- long / short / curved / none / artificial
- It should be curl outwards

Inspecting the eyelids :

- Colour
- Edema
- Abnormal finding includes

Stye :

- Inflammed swelling on the edge of eyelids caused by a staphylococcus bacteria eye infection.

Ptosis :

Drooping (or) falling of the upper cyclid due to paralysis (loss of muscle function)

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Ectropian :

It is a medical condition in which the lower cyclid turns outward.

Caused by muscle weakness.

Entropion : It is a condition in which cyclid turns inward caused by genetic factors.

Masses in eyelids : Abnormal growth of tissues

Inspecting the cyclashes : Long, curve, none, artificial

Sclera – whitish / yellowish / reddish or any discharges

Conjuntiva : Pale, pinkish or any masses, inflarmation of conjunction

Corner & Iris :

- ❖ Colour
- ❖ Cloudy – Cataract
- ❖ Infact

Pupils : PERLA (Pupil equally round reacting to light accommodation & it is done by pen torch).

It of used to assess the papillary reaction.

Lacrimal gland :

Inspecting & palpate the lacrimal glands :

- ❖ Edema (swollen)
- ❖ Tender / non tender
- ❖ Tearing

Inspecting the pupils

- ❖ Pupils are normally black, equal in size, (3 to 7 mm in diameter), round.
- ❖ Pupils may be pale cloudy if the patients has cataracts (opacity of the lens – loss of transparency)

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Assessing the eye movements :

- Normal
- Nystagmus
- Exotrophia
- Esotrophia
- Hypertropia

Nystagamus :

- Rapid involuntary movement of eyes. It is usually caused by abnormal function in the areas of the brain that control eye movements.

Exotropia :

- Exotropia is a form of strabisemus (eye misalignment) in which one or both of the eyes turn outward.

Esotropia :

- Hypertropia is a form of strabismus in which one eye turns upward, putting it out of alignment of the other eye.

Assessing the visual acuity :

- The visual acuity test is used to determine the smallest letters you can read on a standardized chart (Snellen chart) or a card held 20 feet (6 meters) away. The normal visual acuity is 6/6 or 20/20.

Myopia (Nearsightedness) :

Distant object appear blurred.

Hypermetropia (long – rightedness)

Presbyopia means "old eye"

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- It cannot focus on close objects for old age. Inspecting the Internal eye structures.

Peripheral vision – checking the internal eye structures

- It is examined with Ophthalmoscope to assess the fundus, including retina, optic nerve disc.
- The abnormal findings includes cloudiness of the lens (cataracts) changes in the size & shape of the blood vessels (for hypertension).

EAR (helical shape)

Inspecting & palpating the ears :

- Assess the external ear by inspection & palpation
- A otoscope is used to inspect the ear cancel & tympanic membrane, which is usually performed by advanced practitioners.

Inspecting & palpating the auricles / pinna :

- Inspect the auricles for shape, size (large / small)

  redness, lesions, symmetry, smooth
- Abnormal findings includes unequal height & size, uneven colour & lesions.
- Palpate the auricles for texture, tenderness or pain, edema, or presence of lesions – pain when manipulating the pinna is a symptom of an infection of the external membrane.

Inspecting the ear cancel & tympanic membrane :

- The Otoscope is used to examine the car cancel & tympanic membrane.
- Ear cancel should be smooth & pink.
- Ear cancel is examined for clean, wax / cerumen discharge & foreign bodies.
- Tympanic membrane should be intact, translucent, gray & shiny.

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- Abnormal findings include redness of the cancel (infection), red & swollen eardrum (symptoms of injection middle ear), bulging, perforated eardrum (infection causing rupture or trauma), wax plugs in ear cancel (accumulation of cerumen) and drainage (infection or foreign body).

Assessing hearing acuity :

- Normal (whisper test, weber test, rinne test)
- It is usually done by turning fork

Whisper test :

1. Stand 1-2 feet behind client so they can not read your lips.
2. Instruct client to place one finger on tragus of left ear to obscure sound.
3. Whisper word with 2 distinct syllables towards client's right ear.
4. Ask client to repeat word back.
5. Repeat test for left ear.
6. Client should correctly repeat 2 syllable word.

Weber's test :

1. Hold the fork at its base & tap it lightly against heel of the palm.
2. Place the base of vibrating fork on midline vertex of clients head or middle of forehead.
3. Ask the client if he or she hears the sounds equally in both cars or better in one ear.
4. Client with normal hearing, hears the sound equally in both ears. In conduction deafness, sound is heard best in affected ear.

   In sensorineural hearing loss, sound is heard only in normal ear.

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Weber's test :

1. Place the stem of the vibrating tuning fork against the clients mastoid process.
2. Begin counting the interval with your watch.
3. Ask the client to tell you when he or she no longer hears the sound, note the no of seconds.
4. Quickly place still vibrating times 1 to 2 cm from ear cancel, & ask client to tell you when he or she no longer hears the sound.
5. Compare the number of seconds the sound heard.
6. The client should hear air conducted sound twice as long as bone conducted sound (2:1 ratio)

Nose & Sinuses :

- ❖ Assess the integrity of the nose & sinuses by using inspection & palpation.
- ❖ Client sits during examination.
- ❖ A penlight allows for gross examination of each naris.
- ❖ A detailed examination requires use of nasal speculum to inspect deeply.
- ❖ Do not use a speculum unless a qualified practioner.

Inspecting the nose :

- ❖ Size & shape (long / short / swollen)
- ❖ Assess the patency of nose by occluding one nostril at the time & asking the patient to inhale & exhale through nose (patent / obstructed)
- ❖ Inspecting the anterior nares by shining the light.

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- ❖ Inspecting the nasal septum for intactness & deviation.
- ❖ Inspect the nasal mucous is moist & darker red than the oral mucosa.
- ❖ Abnormal findings are swelling of the nasal mucosa, bleeding or discharge (indicating allergies with inflammation or inflection), perforation or deviation of the nasal septum may be congenital or trauma & polyps

Palpating the Sinuses :

- ➢ The frontal & maxillary sinuses, located in the frontal & maxillary bones, respectively are palpated for pain & edema.
- ➢ Fronted sinuses are palpated by gently pressing upward on the bony prominences located above each eye.
- ➢ The maxillary sinuses are palpated by gently pressure on the bony prominences of the upper cheek.
- ➢ Normally the sinuses are not painful when palpated pain may be find if sinuses are infected (or) obstructed.

Mouth & Pharynx :

Lips :

Pale, Pink, Cyanosis, Smooth, Dry, Crackled fissure (abnormal opening), angular stomatitis (inflammation of one or both corners of the mouth).

Teeth :

Colour, Stained dental caries, alignment & dentures.

Gums :

Pink, Swollen, Bleeding (nutritional deficits), Poor, Oral hygiene), Gingivitis (inflammation of the gum), Ulcerated, Spongy.

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Angular stomatitis Infection in the corner to tongue

Buccal Mucosa :

Colour (Pink), soft, dry, moist, moist, ulcers, cleft clip, cleft palate, halitosis.

Cleft lip (It is the opening in the upper lip that may extent into the nose.

Cleft Palate (Congenital fissure of the roof of the mouth produced by failure).

- To inspect the buccal mucosa, ask the client to open the mouth & them gently retract the cheeks with a tongue depressor.
- To palpated the buccal lesions by placing the index finger within the buccal cavity & thumb on the outer surface of the cheek.

Tongue :

- Tongue are normally pink, moist, free of swelling or lesions.
- Abnormal findings includes dry, white coated (tongue) fissures, cracked, bluish, microglossia, macroglossia, glossitis.

Fissured Tongue :

It is a benign condition characterized by deep grooves (fissures) in the dorsum of the tongue due to dehydration.

Microglossia :

Abnormal smallness of the tongue due to congenital problem.

Macroglossia : Large tongue.

Tonsils :
- Uvule (mobile, midline – centrally located)
- Red tonsils (Infected) Tonsillitis
- Pink

Anatomy of the neck :

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Inspecting of the neck :

Appearance : Long

Short

Masses

Symmetrical

Non – symmetrical

Jugular vein distension

Movements :

- ❖ Assess the neck movements with sitting position & neck slightly hyper extended, if possible.
- ❖ Ask the client to tilt the head backward, forward & side to side to assess range of motion (ROM).

Inspecting the thyroid gland :

- ❖ Assess the thyroid gland with the neck slightly
- ❖ Observe the lower portion of neck overlying the thyroid gland
- ❖ Assess for symmetry & visible masses
- ❖ Ask the patient to swallow
- ❖ Offer a glass of water, if necessary to make it easier for the patient to swallow
- ❖ Observe the area while the patient swallow
- ❖ It helps to visualize an abnormally enlarged thyroid
- ❖ Normally cannot visualize the thyroid
- ❖ Abnormal findings includes asymmetry, enlargement, lumps & bulging
- ❖ These findings may indicate the presence of enlargement of the thyroid(goiter), inflammation of the thyroid (thyroiditis) or cancer of the thyroid.

Palpating the thyroid gland:

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- Palpating the thyroid for size, shape, symmetry, tenderness & presence of any nodules
- If palpable, the thyroid gland should feel soft but elastic
- It should be non tender, no enlargement, masses, nodules (which may indicate thyroid gland disease, infection of thyroid or cancer)
- palpation of thyroid is an advance assessment skill.

Palpating the lymph & trachea:

Palpating the trachea:

- Palpate the trachea, normally midline at the suprasternal noch, for alignment & position
- An unequal space between the trachea & the sternocledomastoid muscel oneach side is an abnormal finding tracheal displacement

Palpating the lymph nodes:

- Palpating the lymph nodes with the using of finger pads for enlargement, tenderness, and mobility.
- Nodes are generally not palpable, if palpable, they should be small, mobile, smooth & non tender
  - If lymph modes are palpable, assess the location, size, consistency, mobility & tenderness.
  - Enlarged lymph modes may indicate infection & auto immune disorders.

Chest : -

Thoracic Configuration :

- **Size & Shape**

(Symmetrical / Diameters / Pigcon / Barrel Shape)

Abnormalities :

Pigcon chest : chest projecting forward

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Barrel Chest : It generally refers to a broad. It usually have a naturally large ribcage.

Respiratory Pattern :

- Respiratory Pattern
- Visible Pulsation
- Tenderness
- Fremitus (Vibration into the body)

Breast :

- Size (normally breast extend third to sixth sibs with nipple at the fourth intercoastal space)
- Shape (normally convex to pendulous, conical
- Nipple retractions (inverted nipple)
- Discharges
- Galactorrhea (Spontaneous flow of milk from the breast, unassociated with childbirth)
- Nodules / masses / lumps

Lung Sounds / Breath Sounds :

Normal Sounds : Broncho Vesicular Sounds

Abnormal sounds:

- Crackles (sound of wood burning in a fireplace)
- Wheeze (rhonchi)
- Pleural friction (move something over a surface with friction)

Heart Sounds :

- S1, S2(lub, dub normal sounds)
- S4, S4 (abnormal sounds)
- Heart rate

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- ❖ Other Sounds - murmurs

Abdomen : -

Size & shape: flat/rounded/ascities/umbilical/bulging/scars/rashes/abdominal distensions

Bowel region: present/absent/hyperactive/hypoactive

Fluid collection: present/absent/dullness or tympany on percussion

Organomegally :

Palpable spleen, liver / tenderness / inguinal or femoral hernia.

Ascetic :

Accumulation of fluid in a peritoneal cavity, causing abdominal swelling.

Inguinal Hernia :

Protrusion of abdominal cavity contents through the Inguinal canal.

GENITALIA

Female Genitalia :

- ➢ Colour
- ➢ Size of labia mojora
- ➢ Vaginal opening
- ➢ Lesions
- ➢ Ecchymosis
- ➢ Heamatoma (abnormal collection of blood outside of a blood)
- ➢ Foul smelling discharges
- ➢ Cystocele (dropped or prolapsed bladder occurs when the bladder wall bulges into the vaginal space)
- ➢ Perinecum – intact
- - Uterine prolapsed (uterus is only party sagging into the vargina)

Male genitalia :

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- ❖ Size, Placement, Contour, Appearance of the skin, redness , edema & discharge.
- ❖ Symmetry
- ❖ Free of lesions
- ❖ Intact
- ❖ Uniform in colour
- ❖ Location of urinary meatus (normally located in the centre of the glans penis & free of discharges)

Phimosis :

Inability to retract the skin (foreskin or prepuce) covering the head (glans) of the penis.

Priapism :

(A condition in which a penis remains erect for hours in the absence of stimulation or after stimulation has ended).

Hydrocele :

Fluid filled masses in the scrotum.

Hernia :

Protrusion

Epispadias :

Urethral meatus presents in the upper aspect of the penis.

Hypostasis :

Urethral opening presents in the lower aspect of the penis due to congenital in newborn male (baby).

Anus & rectum :

- ➢ Haemorrhoids (Dilated veins that appear protrusions)
- ➢ Inflammation

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- Tissues (break or tear in the skin of the anal canal)
- Anal skin tags (non-cancerous growth of excess skin appearing near the opening of the anus)
- Rectocele (rectum protrudes into the vagina)
- Patency

Back - Spinal Curvature

- Kyposis - Excessive outward curvature of the spine
- Lordosis - Excessive inward curvature of the spine
- Scoliosis - Abnormal lateral curvature of the spine

Vertebrae :

- Intact
- Tenderness
- Spondylosis (Painful condition of the spine resulting from the degeneration of the intervertebral discs)
- Spinal cord defects
- Lesion / rashes
- ROM : Possible / limited

Extremities :

- Normal
- Symmetrical
- Non – symmetrical
- Swollen
- Edema
- Deformities
- Rashes
- Prosthesis (an artificial body part)

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- Varicose veins (enlarged & twisted veins)

Muscle tone & strength :

(assess the muscle strength by asking the patient to move against the resistance)

Evaluate the muscle tone – normal condition of a muscle at rest by putting each joint & extremity through passive ROM.

- Flabby (hanging loosely)
- Flaccid (hanging loosely)
- Muscle Atrophy (decreased in size)
- Muscle (a sudden involuntary muscular contraction or convulsive movements)
- Atrophy (decreased in size)
- Tremors (involuntary movements)

ROM of all joint : Possible / Limited

- Each joint normally has full ROM is non – tender & moves smoothly)

Muscle strength:

Rating Scale	Explanation	Classification
5	Active motion against full resistance	normal
4	Active motion against some resistance	slight weakness
3	Active motion against gravity	average weakness
2	Passive ROM (gravity removed & assisted by examiner)	Poor ROM
1	Slight flicker of contraction	severe weakness
0	No Muscular contraction	Paralysis

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OXFORD SCALE	EXPLANATION
0	No contraction is present.
1	There is flicker contraction
2	Full ROM with gravity counter balance. *(Eliminated)
3	Full ROM against gravity.
4	Full ROM against gravity + added resistance.
5	Muscle function normally.

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