

## General Survey

- Health assessment begins with general survey that involves observation of the client's:
  - ✓ *general appearance*
  - ✓ *level of comfort*
  - ✓ *mental status*
  - ✓ *measurement of vital signs, height, and weight*
- These are assessed while taking the client health history

## Appearance and Mental Status

- It must be assessed in relationship to culture, educational level, socioeconomic status, and current circumstances
- The client's age, sex, and race are also useful factors in interpreting findings that suggest increased risk for known conditions
- Prior to performing the procedure, introduce self and verify the client's identity
- Explain the procedure and its purpose, and how he or she can participate
- Discuss how the result will be used in planning further care or treatments
- Perform hand hygiene
- Provide for client privacy

### 1. Observe for signs of distress in posture or facial expression.

#### Normal Findings:

- *No distressed noted*

#### Deviations:

- *bending over because of abdominal pain*
- *wincing*
- *frowning*
- *labored breathing*

### 2. Observe body build, height, weight in relation to client's age, lifestyle, and health.

#### Normal Findings:

- *proportionate*
- *varies with lifestyle*

#### Deviations:

- *excessively thin or obese*

### 3. Observe client's posture and gait, standing, sitting, and walking.

#### Normal Findings:

- *relaxed*
- *erect posture*
- *coordinated movement*

#### Deviations:

- *tense*
- *slouched*
- *uncoordinated movement*
- *tremors*
- *unbalanced gait*

### 4. Observe client's overall hygiene and grooming.

#### Normal Findings:

- *clean*
- *neat*

#### Deviations:

- *dirty*
- *unkempt*

### 5. Note body and breath odor.

#### Normal Findings:

- *no body odor or minor body odor relative to work or exercise*
- *no breath odor*

#### Deviations:

- *foul body odor*
- *ammonia odor*
- *acetone breath odor*
- *foul breath*

### 6. Note obvious signs of health or illness.

#### Normal Findings:

- *well-developed*
- *well nourished*
- *intact skin*
- *easy breathing*

#### Deviations:

- *pallor (paleness)*
- *weakness*
- *lesions*
- *cough*

### 7. Assess the client's attitude (frame of mind).

#### Normal Findings:

- *cooperative*
- *able to follow instructions*

#### Deviations:

- *negative*
- *hostile*
- *withdrawn*
- *anxious*

### 8. Note client's affect/mood, assess the appropriateness the client's responses.

#### Normal Findings:

- *appropriate to the situation*

#### Deviations:

- *inappropriate to the situation*
- *sudden mood change*
- *paranoia*

### 9. Listen for quantity of speech (amount and pace), quality (loudness, clarity, inflection).

#### Normal Findings:

- *understandable*
- *moderate pace*
- *clear tone and inflection*

#### Deviations:

- *rapid or slow pace*
- *overly loud or soft*

### 10. Listen for relevance and organization of thoughts.

#### Normal Findings:

- *logical sequence*
  - *make sense*
  - *has sense of reality*
- Deviations:
- *illogical sequence*
  - *flight of ideas*
  - *confusion*
  - *generalization*
  - *vague*

## Assessing the Skin

### 1. Inspect skin color.

#### Normal Findings:

- *varies from light to deep brown*
- *from ruddy to light pink*
- *from yellow overtone to olive*

#### Deviations:

- *pallor*
- *cyanosis*
- *jaundice*
- *erythema*

### 2. Inspect uniformity of skin color.

#### Normal:

- *generally uniform except in areas exposed to the sun*
- *areas of lighter pigmentation (palms, lips, nail beds) in dark-skinned people*

#### Deviations:

- *areas of either hyperpigmentation or hypopigmentation*

### 3. Assess edema if present. Measuring the circumference of the extremity.

#### Normal:

➤ no edema

#### Deviations:

➤ refer to the edema scale

### 4. Inspect, palpate, and describe skin lesions

#### Palpate:

➤ shape and texture

#### Describe as to:

➤ location

➤ distribution

➤ color

➤ configuration

➤ size and shape

➤ type or structure

#### • Normal:

➤ freckles

➤ some birthmarks

➤ some flat and raised nevi

➤ no abrasions

➤ no other lesions

#### • Deviations:

➤ presence of primary or secondary lesions

### 5. Observe and palpate skin moisture.

#### • Normal:

➤ moisture in skinfolds and the axillae

✓ varies with environmental temperature and humidity; body temperature; and activity

#### • Deviations:

➤ excessive moisture

➤ excessive dryness

### 6. Palpate skin temperature. Compare the two feet and two hands, using the backs of fingers.

#### • Normal:

➤ uniform; within normal range (WNR)

#### • Deviations:

➤ generalized hyperthermia

➤ generalized hypothermia

➤ localized hyperthermia (infection)

➤ localized hypothermia (arteriosclerosis)

### 7. Note skin turgor (fullness or elasticity) by lifting and pinching the skin on an extremity or sternum (for elderly clients).

#### • Normal:

➤ skin springs back to previous state (elastic)

➤ may be slower in older adults

#### • Deviations:

➤ skin stays pinched or moves back slowly (poor skin turgor)

✓ count in seconds how long the skin remained tented

✓ there is no widely accepted time span distinguishing normal from abnormal skin turgor

## Assessing the Hair

### 1. Inspect the evenness of growth over the scalp.

#### • Normal:

➤ evenly distributed

#### • Deviations:

➤ patches of hair loss (alopecia)

### 2. Inspect hair thickness or thinness.

#### • Normal:

➤ thick hair

#### • Deviations:

➤ very thin hair

### 3. Inspect hair texture and oiliness.

#### • Normal:

➤ silky, resilient hair

#### • Deviations:

➤ brittle hair

➤ excessively oily

➤ dry hair

### 4. Note presence of infections or infestations by parting the hair in several areas, checking behind the ears and along the hairline at the neck.

#### • Normal:

➤ no infection or infestation

#### • Deviations:

➤ flaking

➤ sores

➤ lice and nits (pediculosis)

➤ ringworm

## Assessing the Nails

### 1. Inspect fingernail plate shape to determine its curvature and angle.

#### • Normal:

➤ convex curvature

➤ angle of nail plate about 160°

#### • Deviations:

➤ spoon nail

➤ clubbing (180° or greater)

### 2. Inspect fingernail and toenail texture.

#### • Normal:

➤ smooth texture

#### • Deviations:

➤ excessive thickness or thinness

➤ presence of grooves or furrows

➤ Beau's lines

### 3. Inspect fingernail and toenail bed color.

#### • Normal:

➤ highly vascular and pink in light-skinned clients

➤ dark-skinned clients may have brown or black pigmentation in longitudinal streaks

#### • Deviations:

➤ bluish or purplish tint (cyanosis)

➤ pallor (poor arterial circulation)

### 4. Inspect tissues around the nails.

#### • Normal:

➤ intact epidermis

#### • Deviations:

➤ hangnails

➤ paronychia (inflammation)

### 5. Perform blanch test of capillary refill. Perform on at least one nail each hand and foot.

#### • Normal:

➤ prompt return of pink or usual color (generally less than 2 seconds)

#### • Deviations:

➤ delayed return of pink or usual color (indicate circulatory impairment)

## Skull and Face

### A normal head size is referred to as normocephalic

• Measurements more than two standard deviations from the norm of age, sex, and race are abnormal and should be reported to the primary care provider

## 1. Inspect the skull for size, shape, and symmetry.

### Normal Findings:

- Rounded (normocephalic and symmetric, with frontal, parietal, and occipital prominences)

- Smooth skull contour

### Deviations:

- lack of symmetry
- increased skull size with more prominent nose and forehead
- longer mandible (may indicate excessive growth hormone or increased bone thickness)

## 2. Inspect the facial features (ex: symmetry of structure and of the distribution of hair).

### Normal Findings:

- symmetric or slightly asymmetric facial features
- palpebral fissures equal in size
- symmetric nasolabial folds

### Deviations:

- increased facial hair
- low hair line
- thinning of eyebrows
- asymmetric features
- exophthalmos
- myxedema facies
- moon face

## 3. Inspect the eyes for edema or hollowness.

### Normal Findings:

- no edema

### Deviations:

- periorbital edema
- sunken eyes

## 4. Note symmetry of facial movements.

➤ ask client to smile, elevate eyebrows, frown, close eyes tightly, puff cheeks, and show teeth

### Normal Findings:

- symmetric facial movements

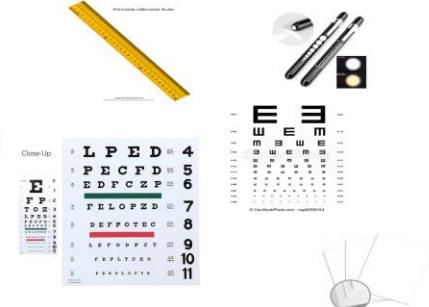
### Deviations:

- asymmetric facial movements
- drooping of lower eyelid and mouth
- involuntary facial movements (tics or tremors)

## Assessing the Eye Structure and Visual Acuity

### • Equipment:

- ✓ Millimeter ruler
- ✓ Penlight
- ✓ Snellen or E chart
- ✓ Opaque card



## 1. Inspect the eyebrows for hair distribution and alignment and skin quality and movement.

➤ ask client to raise and lower the eyebrows

### Normal Findings:

- hair evenly distributed; skin intact
- eyebrows symmetrically aligned
- equal movement

### Deviations:

- loss of hair
- scaling and flakiness of skin
- unequal alignment and movement of eyebrows

## 2. Inspect eyelashes for evenness of distribution and direction of curl.

### Normal Findings:

- equally distributed
- curled slightly outward

### Deviations:

- turned inward

## 3. Inspect the eyelids for surface characteristics, position in relation to cornea, ability to blink, and frequency of blinking.

➤ inspect the lower eyelids while client's eyes are closed.

### Normal Findings:

- skin intact, no discharge, no discoloration
- lids close symmetrically
- approximately 15 to 20 involuntary blinks per minute
- bilateral blinking when
- lids open, no visible sclera above corneas
- upper and lower borders of cornea slightly covered

### Deviations:

- redness, swelling, flaking, crusting, plaques, discharge, nodules, lesions
- lids close asymmetrically, incompletely, or painfully
- rapid, monocular, absent, or infrequent blinking
- ptosis, ectropion, or entropion
- rim of sclera visible between lid and iris

## 4. Inspect the bulbar conjunctiva (lying over the sclera) for color, texture, and the presence of lesions.

### Normal Findings:

- transparent
- capillaries sometimes evident
- sclera appears white (darker or yellowish and with small brown macules in dark-skinned clients)

### Deviations:

- jaundiced sclera (liver disease)
- excessively pale sclera (anemia)
- reddened sclera (marijuana use)
- lesions or nodules (indicate damage by mechanical, chemical, allergic, or bacterial agents)

## 5. Inspect cornea for clarity of texture.

➤ ask client to look straight ahead

➤ hold a penlight at an oblique angle to the eye

➤ move the light slowly across the corneal surface

### Normal Findings:

- transparent, shiny, and smooth
- details of the iris are visible
- in older person, a thin, grayish white ring around the margin (arcus senilis) may be evident

### Deviations:

- opaque
- surface not smooth (trauma or abrasion)
- arcus senilis in clients under age 40

## 6. Inspect the pupils for color, shape, and symmetry of size.

### Normal Findings:

- black in color
- equal in size
- normally 3 to 7 mm in diameter, round, smooth border
- iris flat and round

### Deviations:

- cloudiness
- mydriasis
- miosis
- anisocoria
- bulging of the iris toward the cornea

## Assessing the Auricles

## 1. Inspect auricles for color, symmetry of size, and position.

### Normal Findings:

- color same as facial skin

### Deviations:

- bluish color (cyanosis)
- pallor (frostbite)
- excessive redness (inflammation or fever)

2. To inspect position, note the level at which the superior aspect of the auricle attaches to the head in relation to the eye.

**Normal Findings:**

- symmetrical
- auricle aligned with outer canthus of the eye, about 10°, from vertical

**Deviations:**

- asymmetry
- low-set ears (Down syndrome)

3. Palpate the auricles for texture, elasticity, and areas of tenderness.

- gently pull the auricle upward, downward, and backward
- fold the pinna forward (it should recoil)
- push in on the tragus
- apply pressure to the mastoid process

**Normal Findings:**

- mobile, firm, and non-tender
- pinna recoils after it is folded

**Deviations:**

- lesions
- flaky, scaly skin
- tenderness when moved or pressed (indicate inflammation or infection of external ear)

2. Perform the whisper test to assess high-frequency hearing.

- have the client occlude one ear
- out of the client's sight, at a distance of 1 to 2 feet, whisper a simple phrase
- ask the client to repeat the phrase
- repeat with the other ear using a different phrase

**Normal Findings:**

- Able to repeat the phrases correctly in both ears.

**Deviations:**

- Unable to repeat the phrases in one or both ears.

3. Perform Weber's test to assess bone by examining the lateralization (sideward transmission) of sounds.

- hold the tuning fork at its base
- activate it by tapping the fork gently against the back of your hand near the knuckles or by stroking the fork between your thumb and index finger

➤ it should be made to ring softly

Place the base of the vibrating fork on top of the client's head and ask where the client hears the noise.

**Normal Findings:**

- sound is heard in both ears or is localized at the center of the head (Weber negative)

**Deviations:**

- sound is heard better in impaired ear
- indicating a bone-conductive hearing loss
- sound is heard better in ear without a problem
- indicating a sensorineural disturbance (Weber positive)

4. Conduct the Rinne test to compare air conduction to bone conduction.

- hold the handle of the activated tuning fork on the mastoid process of the ear until the client states that the vibration can no longer be heard

• Immediately hold the still vibrating fork prongs in front of the client's ear canal.

➤ ask whether the client now hears the sound

➤ sound conducted by air is heard more readily than sound conducted by bone

**Normal Findings:**

- Air-conducted (AC) hearing is greater than bone-conducted hearing
- AC > BC (positive Rinne)

**Deviations:**

- bone conduction time is equal to or longer than the air conduction time (BC>AC or BC=AC)

➤ negative Rinne indicates a conductive hearing loss

## External Ear Canal and Tympanic Membrane

1. Inspect the external ear canal for cerumen, skin lesions, pus, and blood.

**Normal Findings:**

- distal third contains hair follicles and glands
- dry cerumen, grayish-tan color
- sticky wet cerumen

**Deviations:**

- redness and discharge
- scaling
- excessive cerumen obstructing canal

• Visualize the tympanic membrane using an otoscope.

• Tip the client's head away from you, and straighten ear canal.

➤ adult: straighten the ear canal by pulling the pinna up and back to facilitate vision

2. Inspect the tympanic membrane for color and gloss.

**Normal Findings:**

- pearly gray color, semitransparent

**Deviations:**

- pink to red, some opacity
- yellow-amber
- blue or deep red
- dull surface

## Gross Hearing Acuity Tests

1. Assess client's responses to normal voice tones.

➤ if client has difficulty hearing normal voice, proceed with the following tests.

**Normal Findings:**

- normal voice tone audible

**Deviations:**

- normal tone voice not audible

➤ requests nurse to repeat words or statements

➤ leans toward speaker

➤ turns the head

➤ cups the ears

➤ speaks in a loud tone of voice

## Assessing the Nose and Sinuses

1. Determine patency of both nasal cavities.

- ask the client to close the mouth, exert pressure on one naris, and breathe through the opposite naris
- repeat procedure to assess the patency of the opposite naris

**Normal Findings:**

- air moves freely as the client breathes through nares

**Deviations:**

- air movement is restricted in one or both nares

2. Inspect the nasal cavities using a flashlight or a nasal speculum.

➤ inspect the lining of the nares and the integrity and the position of the nasal septum

**Normal Findings:**

- the nasal septum, inferior and middle turbinate's of the nasal passage

3. Observe for the presence of redness, swelling, growths, and discharge.

**Normal Findings:**

- mucosa pink
- clear, watery discharge
- no lesions

**Deviations:**

- mucosa red, edematous
- abnormal discharge (pus)
- presence of lesions (polyps)

4. Inspect the nasal septum between the nasal chambers.

**Normal Findings:**

- intact and in midline

**Deviations:**

- septum deviated to the right or to the left

5. Palpate the maxillary and frontal sinuses for tenderness.

**Normal Findings:**

- non-tender

**Deviations:**

- tenderness in one or more sinuses

**Deviations:**

- excessive dryness
- mucosal cyst
- irritations from dentures
- abrasions
- ulcerations
- nodules

## TEETH AND GUMS

1. Inspect the teeth and gums while examining the inner lips and buccal mucosa.

➤ Ask client to open the mouth

➤ Using the tongue depressor, retract the buccal mucosa

➤ View the surface buccal mucosa from top to bottom and back to front

➤ A flashlight or penlight will help illuminate

➤ Repeat the procedure for the other side

**Normal Findings:**

- 32 adult teeth
- smooth, white, shiny tooth enamel
- pink gums (bluish or brown patches in dark-skinned clients)
- moist firm texture to gums
- no retraction of gums

**Deviations:**

- missing teeth, ill-fitting dentures
- brown or black decoloration of the enamel
- indicate staining or presence of dental caries
- excessively red gums

**Gums:**

- spongy texture
- bleeding
- tenderness (indicate periodontal disease)
- receding, atrophied gums
- swelling that partially covers the teeth

1. Inspect the back teeth.

➤ For proper vision of both molars, use the index fingers of the both hands to retract the skin

2. Ask the client to relax the lips, then close the jaw.

➤ closing the jaw assists in observation of tooth alignment and loss of teeth

➤ opening the jaw assists in observation of dental fillings and caries

**• Observe:**

- the number of teeth
- tooth color
- the state of fillings
- dental caries
- tartar along the base of the teeth
- Note the presence and fit of partial or complete dentures.

3. Inspect the gums around the molars.

➤ observe for bleeding, color, retraction (pulling away of teeth), edema, and lesions

4. Inspect the dentures

➤ Ask client to remove complete or partial dentures

➤ Inspect their condition, noting in particular broken or worn areas.

**Deviations:**

- ill-fitting dentures
- irritated and excoriated area under dentures

## TONGUE/FLOOR OF THE MOUTH

1. Inspect the tongue for position, color, and texture.

➤ Ask client to protrude the tongue

**Normal Findings:**

- central position
- pink color (some brown pigmentation on tongue borders in dark-skinned clients)
- moist, slightly rough
- thin whitish coating

## Assessing the Mouth and Oropharynx



**• Equipment:**

- ✓ clean gloves
- ✓ tongue depressor
- ✓ 2x2 guaze pad (OS)
- ✓ penlight

• Inquire if the client has history of the following:

➤ routine pattern of dental care

➤ last visit to dentist

➤ length of time ulcers or other lesions have been present

➤ denture discomfort

➤ medication client is receiving

## LIPS AND BUCCAL MUCOSA

1. Inspect the outer lips for symmetry, contour, color, and texture.

• Ask the client to purse the lip.

**Normal Findings:**

- uniform bluish hue (dark-skinned)/ pink
- soft, moist, smooth texture
- symmetry of contour
- ability to purse lips

**Deviations:**

- pallor, cyanosis

• blisters; generalized or localized swelling; fissures, crusts, or scales

➤ may result from excessive moisture, nutritional deficiency, or fluid deficit

• inability to purse lips

➤ may indicate facial nerve damage

2. Inspect and palpate the inner lips and buccal mucosa for color, moisture, texture, and the presence of lesions.

➤ Apply clean gloves.

➤ Ask the client to relax the mouth and, for better visualization, pull the lip outward and away from the teeth.

➤ Grasp the lip on each side between the thumb and index finger.

**Normal Findings:**

- moist, smooth, glistening, and elastic texture

➤ drier oral mucosa in older clients due to decreased salivation

- smooth, lateral margin, no lesions

- raised papillae (taste buds)

**Deviations:**

- excessive trembling

- smooth red tongue (beefy tongue)

➤ *indicative of iron or vitamin B<sub>12</sub>*

- dry furry tongue (associated with fluid deficit)

- white coating (oral yeast infection)

- nodes

- ulcerations

- discolorations (white or red)

- areas of tenderness

**2. Inspect the base of the tongue, the mouth floor, and the frenulum.**

➤ *Ask the client to place the tip of the tongue against the roof of the mouth*

**Normal Findings:**

- smooth tongue base with prominent veins

**PALATES AND UVULA**

**1. Inspect the hard palate for color, shape, texture, and the presence of bony prominence.**

➤ *Ask the client to open the mouth and tilt the head backward*

➤ *Then, depress tongue with tongue depressor as necessary, and use a penlight for appropriate visualization*

**Normal Findings:**

- light pink, smooth, soft palate
- lighter pink hard palate, more irregular

**Deviations:**

- discoloration (jaundice or pallor)

- palates same color

- irritations

- exostoses (bony growth) growing from the hard palate

**2. Inspect the uvula for positions and mobility while examining the palates.**

➤ *To observe the uvula, ask the client to say "ah" so that the soft palates rises*

**Normal Findings:**

- positioned in midline of soft palate, rises during vocalization

**Deviations:**

- deviation to one side from tumor or trauma

- immobility (may indicate damage to trigeminal [CNV] or vagus [CNX] nerve)

- cleft palate

**OPHARYNX AND TONSILS**

**1. Inspect the oropharynx for color and texture.**

➤ *Inspect one side at a time to avoid eliciting gag response*

➤ *To expose one side of the oropharynx, press a tongue depressor against the tongue the same side about halfway back while the client tilts head back and opens the mouth*

➤ *Use penlight for illumination, if needed*

**Normal Findings:**

- pink and smooth posterior wall

**Deviations:**

- inflamed

**2. Inspect tonsils (behind the fauces) for color, discharges, and size.**

**Normal Findings:**

- pink and smooth

- no discharge

- of normal size: **Grade 1** (normal)

➤ *the tonsils are behind the tonsil pillars (the soft structures supporting the soft palate)*

**Deviations:**

- inflamed

- presence of discharge

- swollen

**Grade 2:**

➤ *the tonsils are between the pillars and the uvula*

**Grade 3:**

➤ *the tonsils touch the uvula*

**Grade 4**

➤ *one or both tonsils extend to the midline of the oropharynx*

## Assessing the Neck

**1. Inspect the neck muscles (sternocleidomastoid and trapezius) for abnormal swellings or masses.**

✓ *ask the client to hold the head erect*

**Normal Findings:**

- muscle equal in size

- head centered

**Deviations:**

- unilateral neck swelling

- head tilted to the side indicates presence of:

➤ *masses*

➤ *injury*

➤ *muscle weakness*

➤ *shortening of sternocleidomastoid muscle*

➤ *scars*

**2. Observe head movement. Ask client to:**

➤ *move the chin to the chest*

✓ *determine the function of sternocleidomastoid muscle*

**Normal Findings:**

- coordinated

- smooth movements with no discomfort

- head flexes 45°

**Deviations:**

- limited range of motion

- painful movements

- involuntary movements

➤ *move the head back so that the chin points upward*

✓ *determines the function of trapezius muscle*

**Normal Findings:**

- head hyperextends 60°

**Deviations:**

- head hyperextends less than 60°

➤ *move the head so that the ear is moved toward the shoulder on each side*

➤ *turn the head to the right and to the left*

✓ *determine the function of sternocleidomastoid*

**Normal Findings:**

- head laterally flexes 40°

**Deviations:**

- head laterally flexes less than 40°

**3. Assess muscle strength.**

➤ *ask the client to turn the head to one side against the resistance of your hand*

➤ *repeat with the other the side*

✓ *this determines strength of the sternocleidomastoid muscle*

**Normal Findings:**

- equal strength

**Deviations:**

- unequal strength

➤ *ask the client to shrug the shoulders against the resistance of your hands*

✓ *this determine the strength of the trapezius*

**Normal Findings:**

- equal strength

**Deviations:**

- unequal strength

## LYMPH NODES

1. Palpate the entire neck for enlarged lymph nodes.
- Face the client, and bend the client's head forward slightly or toward the side being examined.  
➤ *this relaxes the soft tissue and muscles*
- Palpate the nodes using the pads of the fingers.
- Move the fingertips in a gentle rotating motion. When examining the submental and submandibular nodes, place the fingertips under the mandible on the side nearest the palpating hand
- Pull the skin and subcutaneous tissue laterally over the mandibular surface so that the tissue rolls over the nodes.
- When examining the submental and submandibular nodes, place the fingertips under the mandible on the side nearest the palpating hand
- When palpating the supraclavicular nodes, have the client bend head forward to relax the tissues of the anterior neck and to relax the shoulders so that the clavicles drop.
- Used your hand nearest to the side to be examined when facing the client.
- Use your free hand to flex the client's head forward if necessary.
- Hook your index and third fingers over the clavicle lateral to the sternocleidomastoid process.
- When palpating the anterior cervical nodes and posterior cervical nodes, move your fingertips slowly in a forward circular motion against the sternocleidomastoid and trapezius muscle
- To palpate the deep cervical nodes, bend or hook your fingers around the sternocleidomastoid muscle

## TRACHEA

- Palpate the trachea for lateral deviation.
- Place your finger or thumb on the trachea in the suprasternal notch,
- Then move the finger laterally to the left and the right in spaces bordered by the clavicle, the anterior aspect of the sternocleidomastoid muscle, and the trachea.

### Normal Findings:

- central placement in midline of neck
- spaces are equal on both sides

### Deviations:

- deviation to one side, indicating possible:  
✓ *tumor*  
✓ *thyroid enlargement*  
✓ *enlarged lymph nodes*

## THYROID GLAND

### 1. Inspect the thyroid gland.

- Stand in front of the client.
- Observe the lower half of the neck overlying the thyroid gland for symmetry and visible masses.

### Normal Findings:

- not visible on inspection

### Deviation:

- visible diffuseness or local enlargement

### 2. Ask the client to extend the head to extend the head and swallow.

- If necessary, offer a glass of water to make it easier the client to swallow.

➤ *this action determines how the thyroid and cricoid cartilages move and whether swallowing causes a bulging of the gland*

### Normal Findings:

- gland ascends during swallowing but is NOT visible

### Deviations:

- gland is not fully movable with swallowing

## Assesing the Breast and Axillae

1. Inspect the breast for size, symmetry, and contour or shape while the client is in sitting position.

### Normal Findings:

- Females  
✓ *rounded shape*  
✓ *slightly unequal in size*  
✓ *generally symmetric*

### Males:

- ✓ *breasts even with the chest wall*  
✓ *if obese, may be similar in shape to female breast*

### Deviations:

- recent change in breast size
- swellings
- marked asymmetry

2. Inspect the skin of the breast for localized discoloration or hyperpigmentation, retraction or dimpling, localized hyper vascular areas, swelling or edema

### Normal Findings:

- skin uniform in color (similar to the skin of the abdomen if not tanned)
- skin is smooth and intact
- diffuse symmetric horizontal or vertical vasular pattern in light-skinned people
- striae (stretch marks)
- moles and nevi

### Deviations:

- localized discolorations or hyperpigmentation
- retraction or dimpling  
*(result scar tissue or invasive tumor)*
- unilateral, localized hypervascular areas  
*(associated increased blood flow)*
- swelling or edema appearing as pig skin or orange peel (peau d' orange)  
➤ *due to exaggeration of pores*
- Emphasize any retraction by having the client  
✓ *raised the hand along the head*  
✓ *push the hands together, with elbows flexed*  
✓ *press the hands down on the hips*

3. Inspect the areola for size, shape, symmetry, color, surface characteristics, and any masses or lesions.

### Normal Findings:

- round or oval and bilaterally the same
- color varies widely, from light to dark brown
- irregular placement of sebaceous glands on the surface of the areola (Montgomery's tubercles)

### Deviations:

- any asymmetry
- mass
- deviation

4. Inspect the nipple size, shape, position, color, discharge, and lesions.

### Normal Findings:

- round everted and equal in size
- similar in color
- soft and smooth
- both nipples point in the same direction

➤ *out in young women and men*

➤ *downward in older women*

- no discharge except from pregnant or breast-feeding females
- inversion of one or both nipple that is present from puberty

### Deviations:

- asymmetrical size and color
- presence of discharge, crust, or cracks
- recent inversion of one or both nipples

**5. Palpate the axilla, subclavicular, and supraclavicular lymph nodes while the client sits with the arms abducted and supported on the nurse's forearm.**

- Use the flat surface of all fingertips to palpate the four areas of the axilla.

- ✓ the edge of the greater pectoral muscle (*musculus pectoralis major*) along the anterior axillary line
- ✓ the thoracic wall in the midaxillary area
- ✓ the upper part of the humerus
- ✓ the anterior edge of latissimus dorsi muscle along the posterior axillary line

**Normal Findings:**

- no tenderness, masses, nodules

**Deviations:**

- tenderness
- masses
- nodules

**6. Palpate the breast for masses, tenderness, and discharge from the nipples.**

- Palpation of the breast is generally performed while the client is supine.

➤ *in supine position, the breast flatten evenly against the chest wall, facilitating palpation*

- For clients who

✓ have a past history of breast masses

✓ are at high risk for breast cancer

✓ have pendulous breast

➤ *examination in both supine and a sitting position is recommended*

• If the client reports a breast lump, start with the "normal" breast to obtain baseline data that will serve as a comparison to the reportedly involved breast.

• To enhance the flattening of the breast, instruct the client to abduct the arm and place her hand behind the head.

• Then place a small pillow or rolled towel under client's shoulder.

• For palpation use the surface of the middle three fingers (held together) make a gentle rotary motion on the breast.

• Choose 1 of the 3 patterns for palpation:

1. hands-of-the-clock or spokes-on-a-wheel

2. concentric circles

3. vertical strips pattern

• Start at one point for palpation, and move systematically to the end point to ensure that all breast faces are assessed.

• Pay particular area and the tail of Spence.

**Normal Findings:**

- no tenderness, masses, nodules, or nipple discharge

**Deviations:**

- tenderness, masses, nodules, or nipple discharge

• If you detect a mass, record the following data:

**Location:**

• the exact location relative to the quadrants and axillary tail, or the clock and the distance from nipple in cms

**Size:**

• the length, the width, and the thickness of the mass (cm)

• if able to determine the the discrete edges, record this fact

**Shape:**

• whether the mass is round, oval, lobulated, indistinct, or irregular

**Consistency:**

• whether the mass is hard or soft

**Mobility:**

• whether the mass is movable or fixed

**Skin over lump:**

• whether it is reddened, dimpled, or retracted

**Nipple:**

• whether it is displaced or retracted

**Tenderness:**

• whether palpation is painful

**7. Palpate the areolae and the nipples for masses.**

• Compress each nipple to determine the presence of any discharge.

• If discharge is present, milk the breast along its radius to identify the discharge producing lobe.

• Assess any discharge for:

✓ amount

✓ color

✓ consistency

✓ odor

• Note also any tenderness on palpation.

**Normal Findings:**

- no tenderness, masses, nodules, or nipple discharge

**Deviations:**

- tenderness, masses, nodules, or nipple discharge

## Assessing the Thorax and Lungs

### POSTERIOR THORAX

**1. Inspect the shape and symmetry of the thorax from the posterior and lateral view.**

- Compare the AP diameter to transverse diameter

**Normal Findings:**

- AP to transverse diameter in ratio of 1:2
- thorax symmetric

**Deviations:**

- barrel chest
- increased AP to transverse diameter
- thorax asymmetric

**2. Inspect the spinal alignment for deformities if the client can stand.**

- From a lateral position, observe the three normal curvatures: cervical, thoracic, and lumbar

➤ *to assess for lateral deviation of the spine (scoliosis), observe the standing client from the rear*

➤ *have the client bend forward at the waist and observe from behind*

**Normal Findings:**

- spine vertically aligned
- spinal column is straight
- right and left shoulders and hips are at same height

**Deviations:**

- exaggerated spinal curvature
- spinal column deviates to one side, often accentuated when bending over
- shoulder or hips not even

**3. Palpate the posterior thorax.**

➤ *assess the temperature and integrity of all chest skin*

**Normal Findings:**

- skin intact
- uniform temperature

**Deviations:**

- skin lesions
- areas of hyperthermia

#### 4. For clients who have respiratory complaints:

- **palpate all thorax areas for bulges, tenderness, or abnormal movements**
- Avoid deep palpation for painful area, especially if fractured rib is suspected
- **in such case, deep palpation could lead to displacement of the bone fragment against the lungs**
- Normal Findings:**
  - chest wall intact, no tenderness, no masses
- Deviations:**
  - lumps, bulges, depression, area of tenderness
  - movable structures (rib)

#### 5. Palpate posterior thorax for respiratory excursion (thoracic expansion).

- **place the palm of your hands over the lower thorax**
- **thumbs adjacent to the spine and fingers stretched**
- **ask the client to take a deep breath**
- **observe the movement of your hands and any lag in movement**

##### Normal Findings:

- full and symmetric expansion
- normally the thumbs separate 3 to 5 cm (1.2 to 2 in.) during deep inspiration

##### Deviations:

- asymmetric and/or decreased thoracic expansion

#### 6. Palpate the thorax for vocal (tactile) fremitus.

- ✓ **the faintly perceptible vibration felt through the chest wall when the client speaks**
- **place the palmar surface of your fingertips or the ulnar aspect of your hand or closed fist on the posterior thorax**
- **start near the apex of the lungs**
- **ask the client to repeat such words as "blue moon" or "one, two, three"**
- **repeat the two steps, moving your hands sequentially to the base of the lungs through positions B-E or 2-5**

##### Normal Findings:

- bilateral symmetry of vocal fremitus
- fremitus is palpated more clearly at the apex of the lungs
- low-pitched voices of males are more readily palpated than higher pitched voices of females

##### Deviations:

- decreased or absence of fremitus (associated with pneumothorax)
- increased fremitus (associated with consolidated lung tissue such as pneumonia, Pneumonoultramicroscopicsilicovolcanoconiosis)

#### 7. Compare the fremitus of both lungs and between apex and base of each lung.

- Percuss the thorax.
  - **percussion of the thorax is performed to determine whether underlying tissue is filled with air, liquid, or solid material**
  - **to determine the positions and boundaries of certain organs**
  - **since percussion penetrates to a depth of 5 - 7 cm (2 - 3 in), it detects superficial rather than deep lesions**
- Ask the client to bend the head and fold arms forward across the chest.
- **this separates the scapula and exposes more lung to percussion**
- Percuss the intercostal spaces at about 5 cm (2 in) intervals in systematic sequence.
- Compare one side of the lung with the other.
- Percuss the lateral thorax every few inches, starting at the axilla and working down to the 8th rib.

##### Normal Findings:

- percussion notes resonate, except over scapula
- lowest point of resonance is at the diaphragm

##### TNI!

- percussion on a rib normally elicits dullness

##### Deviations:

- asymmetry in percussion note
- areas of dullness or flatness over lung tissue

➤ **associated with consolidation of lung tissue or a mass**

#### 8. Auscultate the thorax using the flat-disk diaphragm of the stethoscope.

- ✓ **the diaphragm of the stethoscope is best for transmitting the high-pitched breath sounds**
- Use systematic zigzag procedure used in percussion
  - **ask the client to take slow, deep breaths through the mouth**
  - **listen at each point to the breath sounds during a COMPLETE inspiration and expiration**
  - **compare findings at each point with the corresponding point on the opposite side of the thorax**

##### Normal Findings:

- vesicular and bronchovesicular breath sounds

##### Deviations:

- presence of adventitious breath sounds (crackles, wheeze, friction rub, gurgles)

#### ANTERIOR THORAX

#### 1. Inspect breathing pattern (respiratory rate and rhythm)

##### Normal Findings:

- quiet, rhythmic, and effortless respiration

##### Deviations:

- rate: tachypnea, bradypnea, apnea
- volume: hyperventilation, hypoventilation
- ease or effort: dyspnea, orthopnea

#### 2. Inspect the costal angle (angle formed by the intersection of the costal margins) and the angle at which the ribs enter the spine.

##### Normal Findings:

- costal angle is < 90°

- ribs insertion into the spine at approximately a 45° angle

##### Deviations:

- costal angle is widened

➤ **associated with chronic obstructive pulmonary disease (COPD) or chronic airway limitation (CAL)**

#### 3. Palpate the anterior thorax.

- Palpate the anterior thorax for respiratory excursion.

##### Normal Findings:

- full symmetric expansion

- thumbs normally separate 3 to 5 cm (1.2 to 2 in)

##### Deviations:

- asymmetric

- decreased respiratory excursion

#### 4. Palpate tactile fremitus in the same manner as the posterior thorax.

➤ **if the breasts are large and cannot be retracted adequately for palpation, this part of the examination is usually omitted**

- Percuss the anterior thorax systematically

➤ **begin above the clavicles in the supraclavicular space**

➤ **proceed towards the diaphragm**

➤ **complete the lung on one side to the lung on the other side**

➤ **displace female breast to facilitate percussion of the lungs**

##### Normal Findings:

- percussion note resonant down to the 6th rib at the level of the diaphragm

- flat over areas of heavy muscle and bone

- dull over the areas of the heart and liver

- tympanic over the underlying stomach

#### 5. Auscultate the trachea.

##### Normal Findings:

- bronchial and tubular breath sounds

##### Deviations:

- adventitious breath sounds

## **6. Auscultate the anterior thorax.**

- beginning over the bronchi between the sternum and clavicles

### **Normal Findings:**

- bronchovesicular and vesicular breath sounds

### **Deviations:**

- adventitious breath sounds

## **7. Auscultate for voice sounds over the chest wall to determine presence of lung consolidation**

### **Bronchophony**

- *ask the client to repeat the "ninety-nine"*

### **Egophony**

- *ask the client to repeat the letter "E"*

### **Whispered pectoriloquy**

- *ask the client to whisper the phrase "one-two-three"*

### **Bronchophony**

#### **Normal Findings:**

- the sound of "ninety-nine" will sound very faint and muffled

#### **Deviations:**

- sounds clear through the stethoscope  
(Bronchophony is present)

➤*indicates lung consolidation*

### **Egophony**

#### **Normal Findings:**

- sound muffled
- but it will remain with the long sound of "ee" when you listen over most of the lung field

#### **Deviations:**

- sound changes to "ay" sound, while the patient is saying "ee" (Egophony is present)

➤*indicates lung consolidation*

### **Whispered pectoriloquy**

#### **Normal Findings:**

- the whispered voice will be distant and very muffled through the stethoscope

#### **Deviations:**

- the whispered voice will sound unusually clear and loud (Pectoriloquy is present)

➤*indicates lung consolidation*