



# *physical examination techniques & preparation for physical examination*

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# Physical examination

*Physical examination : Collection of objective data about the patients health status*

**Objective data** are observable and measurable data that are obtained through observation, standard assessment techniques performed during the physical examination, laboratory and diagnostic testing.



# Preparation for Physical Examination

- **Preparation for the nurse:**
  - Wear proper comfortable uniform
  - Should be knowledgeable: know disease process, physiological mental and psychological changes which may affect client's .
  - Skillful: know how to perform physical examination and use tool
  - Receiving request to perform physical examination
  - Working related to professional nursing issues as (confidentiality, respect and following infection control measures – hand washing)



- **Preparation of physical environment:**
  - Clean well's place
  - Quiet
  - Proper temperature
  - Proper ventilation
  - Proper humidity
  - Proper light- natural and artificial light may used.



- **Preparation of Client:**

- The nurse identify herself \his to the client
- Explain the purpose for examination and the procedures which may client perform
- Explain the need for changing position during examination asking the client if he \she has the ability to do so
- Maintain the client privacy
- Provide the client with clean gown



- **Preparation of the equipment:**
  - Be sure that's the equipment is in good condition working well
  - Clean well arranged according to use
  - All infection control measures should be taken under consideration



# **Physical Examination**

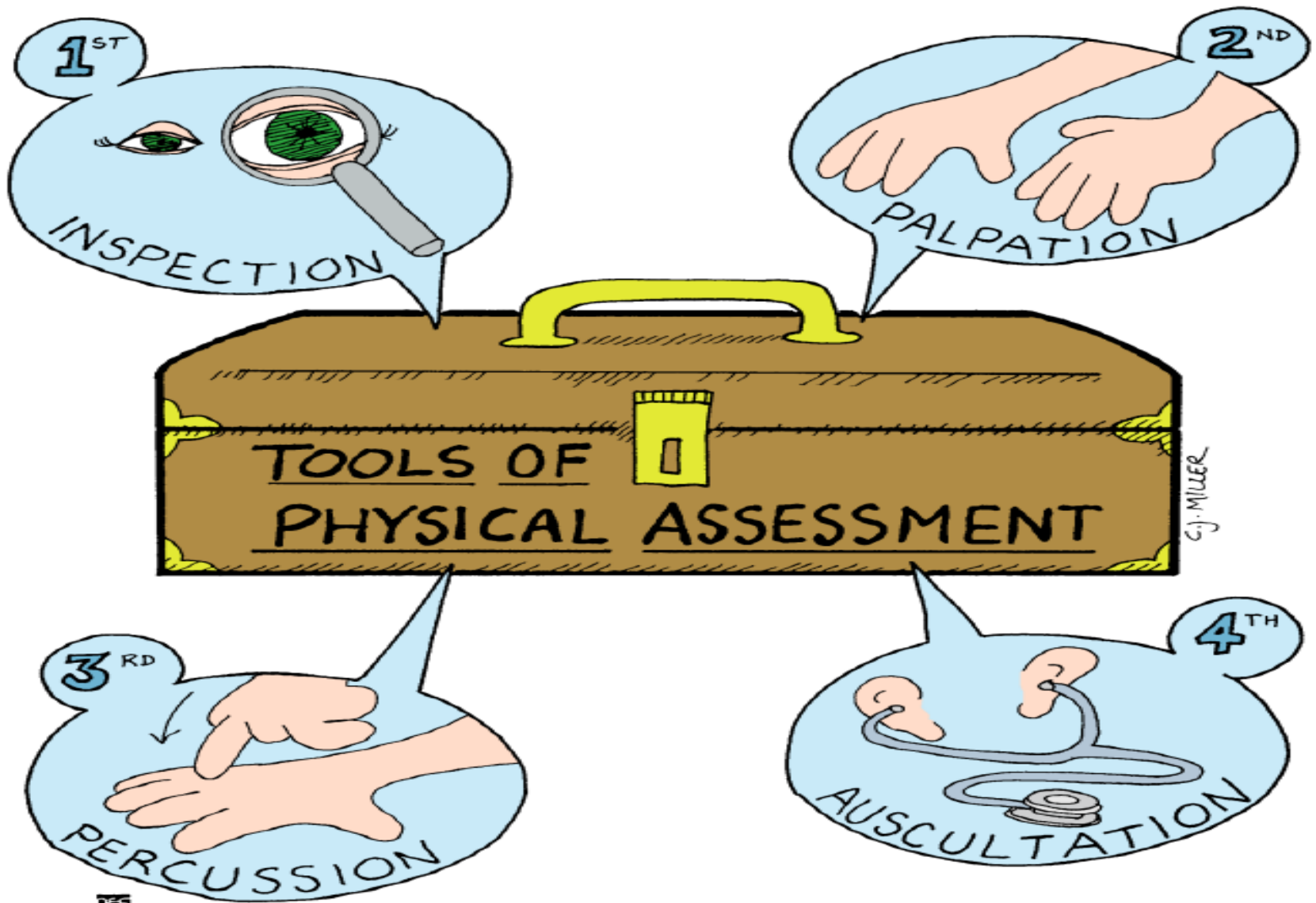


# Physical Assessment

- There are four techniques to use in performing physical assessment:
- 1. Inspection
- 2. Palpation
- 3. Percussion
- 4. Auscultation

**The order of techniques is as follows (Inspect – Palpation – Percussion - Auscultation) except for the abdomen which is Inspect – Auscultation – Percuss – Palpate.**





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\*IN CASE OF ABDOMINAL TENDERNESS\*  
1<sup>ST</sup> INSPECT • 2<sup>ND</sup> AUSCULTATE • 3<sup>RD</sup> PERCUSS • 4<sup>TH</sup> PALPATE



# Inspection

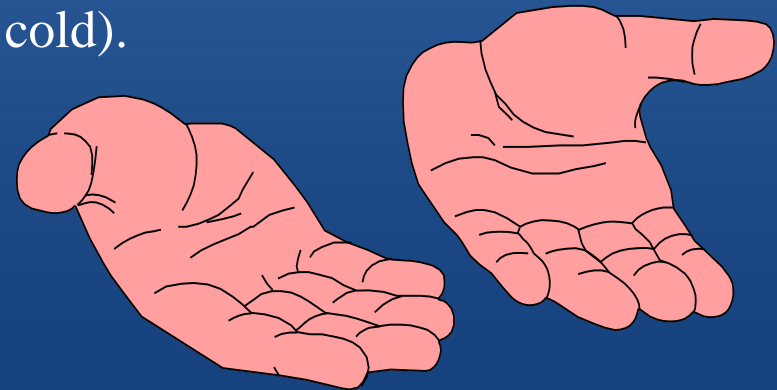


- Use vision, hearing & smell
- Look for symmetry
- Use good lighting
- Use good exposure
- Observe for color, size, location, texture, symmetry, odors, and sounds.
- Compare each area inspected with the opposite side of body if possible.
- Concentrated watching Otoscope, ophthalmoscope, penlight



# Palpation

- Touch & feel with hands to determine:
  - Texture – use fingertips (roughness, smoothness).
  - Temperature – use back of hand (warm, hot, cold).
  - Moisture (dry, wet, or moist).
  - Organ location and size
  - Consistency of structure (solid, fluid, filled)
- Slow and systematic
- Light to deep (Deep = 3-5 cm ; Light = 1 cm)
- Light palpation (tenderness)
- Deep palpation (abdominal organs/masses)





## Types of palpation :-

- 1) Light palpation ..
- 2) Deep palpation .
- 3) Bimanual palpation



# Principles for Accurate Palpation

- Examiner finger nails should be short.
- Light Palpation precedes deep palpation.
- Start with light then deep palpation
- Tender area are palpated last
- Tell client to take slow deep breath to enhance muscle relaxation.
- Examine condition of the abdominal organs
- Depressed areas must be approximately “2cm”
- Assess turgor of skin measured by lightly grasping the body part with finger tips.



# Light palpation



# Deep palpation



# Bimanual palpation



**B**





# Percussion

- ❖ Tap a portion of the body to elicit tenderness that varies with the density of underlying structures.
- ❖ Percussion denotes **location**, **size** and **density** of underlying structures, percussion requires dexterity.

## *Types of Percussion*

- 1) **Direct (immediate)** : involving striking the body surface directly with one or two fingers.
- 2) **Blunt** : used to detected tenderness over organs (e.g. kidneys).
- 3) **Indirect (mediate)** : by tapping produce sound or tone that varies with density of the underlying structure . Use a quick & sharp stroke.



# Direct percussion

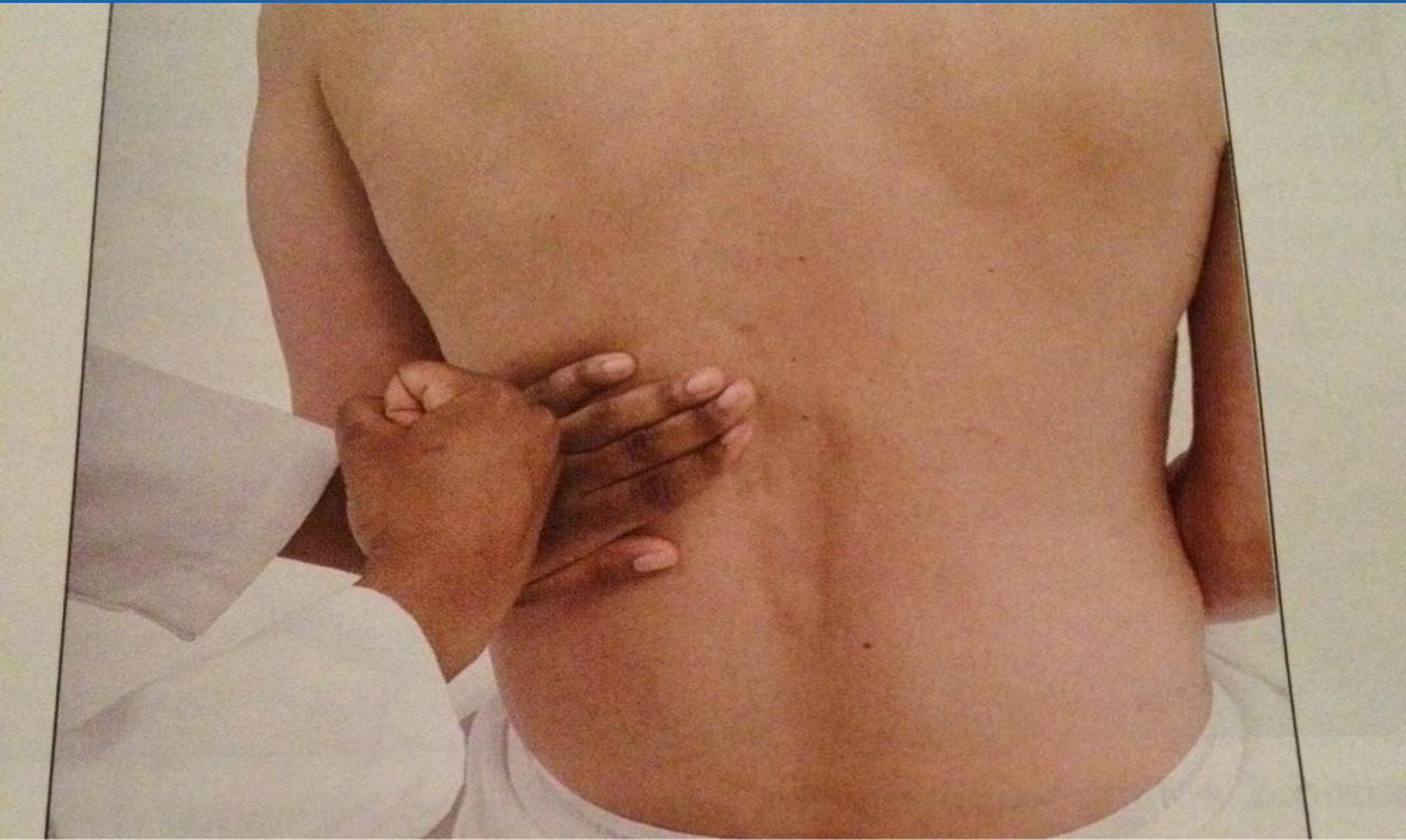


# Indirect Percussion



FIGURE 24-2 Perform indirect percussion with two hands, using the finger of one hand to tap on the finger of the other hand.

# Blunt indirect percussion





## Five percussion sounds produced in different body regions

1. Resonant – normal lung
2. Hyper resonant: it's a louder and lower pitched than resonant sounds. Normally heard in children and very thin adults , and abnormally in emphysema
3. Tympany : Tympany is heard if the chest contains free air (pneumothorax) or the abdomen is distended with gas air filled (stomach)
4. Dull are normally heard over dense areas such as the heart or liver. Dullness replaces resonance when fluid replaces air-containing lung tissues, such as occurs with pneumonia, pleural effusions, or tumors
5. Flat: shown in no air areas such as thigh muscle, bone and tumor

# Auscultation



- *Listening to body sounds.*
- *Movement of air (lungs).*
- *Blood flow (heart).*
- *Fluid & gas movement (bowels).*
- *Remember the sound changes in the abdomen.*



Figure 25-3 Stethoscope bell and diaphragm. Use the **diaphragm** of the stethoscope to detect high-pitched sounds. The diaphragm should be at least 1.5 inches wide for adults and smaller for children. Hold the diaphragm **firmly** against the body part being auscultated. Use the **bell** of the stethoscope to detect low-pitched sounds. The bell should be at least 1 inch wide. Hold the bell **lightly** against the body part being auscultated.

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# Auscultation

- Describe sound characteristics (frequency, pitch intensity, duration, quality)
- Flat diaphragm picks up high-pitched respiratory sounds best ,normal bowel ,heart sound.
- Bell picks up low pitched sounds such as heart murmurs.



# Instrumentation used in assessment

Instruments, or “equipments” used during physical assessment should be readily accessible, clean, in proper working order.

1. **Ophthalmoscope:** "lighted instrument for visualization of the eye".
2. **Otoscope:** for examination of the ear.
3. **Snellen eye chart:** used as a screening test for vision.
4. **Nasal speculum:** used for assessment of the nose.
5. **Vaginal speculum:** examination of the vaginal canal and cervix.
6. **Tuning fork:** for testing auditory function and vibratory perception.
7. **Percussion hammer:** “reflex hammer” used to test reflexes and determine tissue density.





THANKS