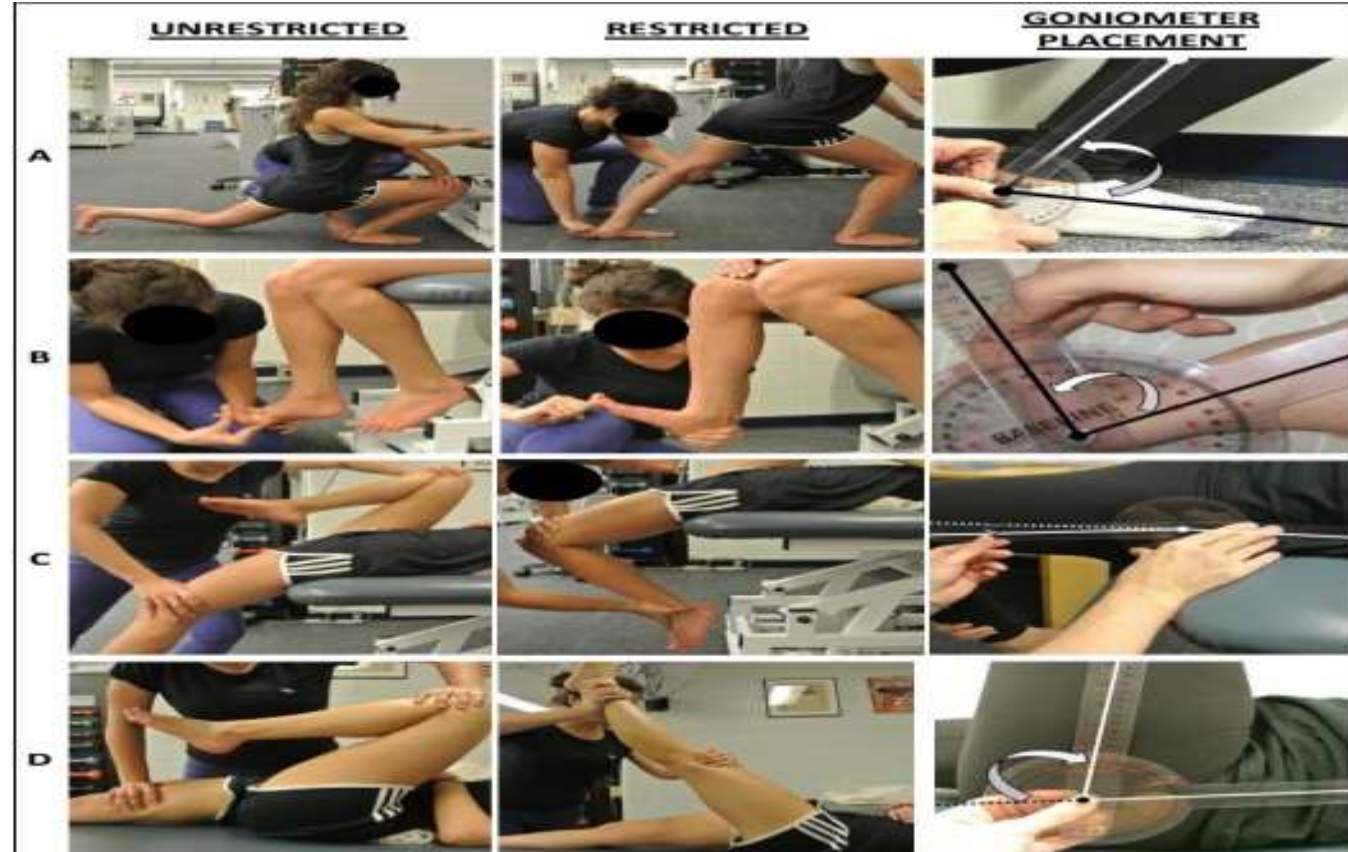


SNS COLLEGE OF PHYSIOTHERAPY COIMBATORE-35

COURSE NAME : BPT., Physiotherapy IV Year
SUBJECT : Exercise Therapy II
UNIT : II
TOPIC : Goniometry for Upperlimb
PREPARED BY : Varunkumar S

Lower Limb

- Hip flexion: 0–120°
- Hip extension: 0–30°
- Knee flexion: 0–135°
- Ankle dorsiflexion: 0–20°
- Ankle plantar flexion: 0–50°



- **Patient position:** Supine, knee flexed
- **Axis:** Greater trochanter
- **Stationary arm:** Mid-axillary line of trunk
- **Moving arm:** Lateral midline of femur toward lateral epicondyle
- **Normal ROM:** 0–120°

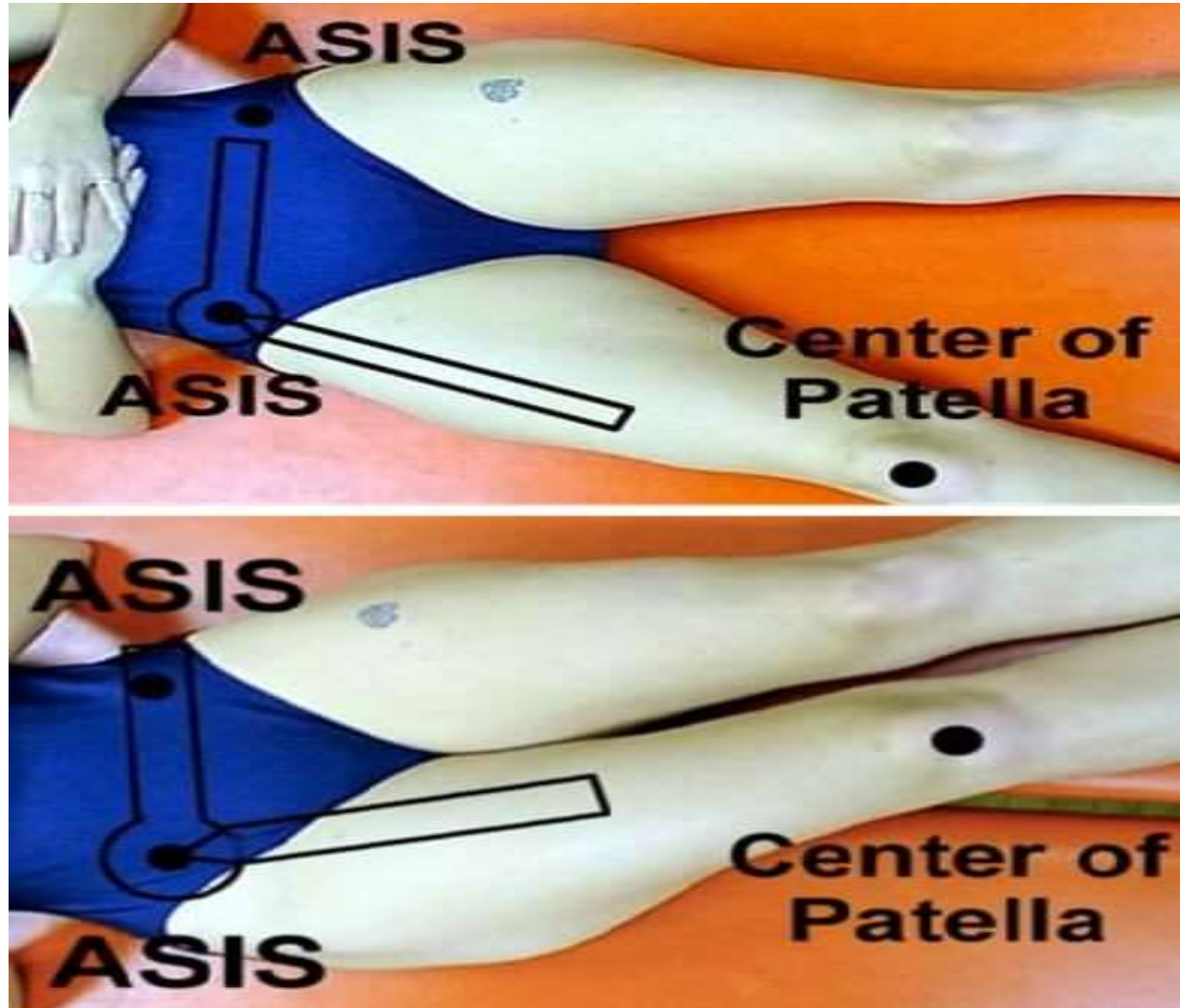


- **Patient position:** Prone
- **Axis:** Greater trochanter
- **Stationary arm:** Mid-axillary line of trunk
- **Moving arm:** Lateral midline of femur
- **Normal ROM:** 0–30°



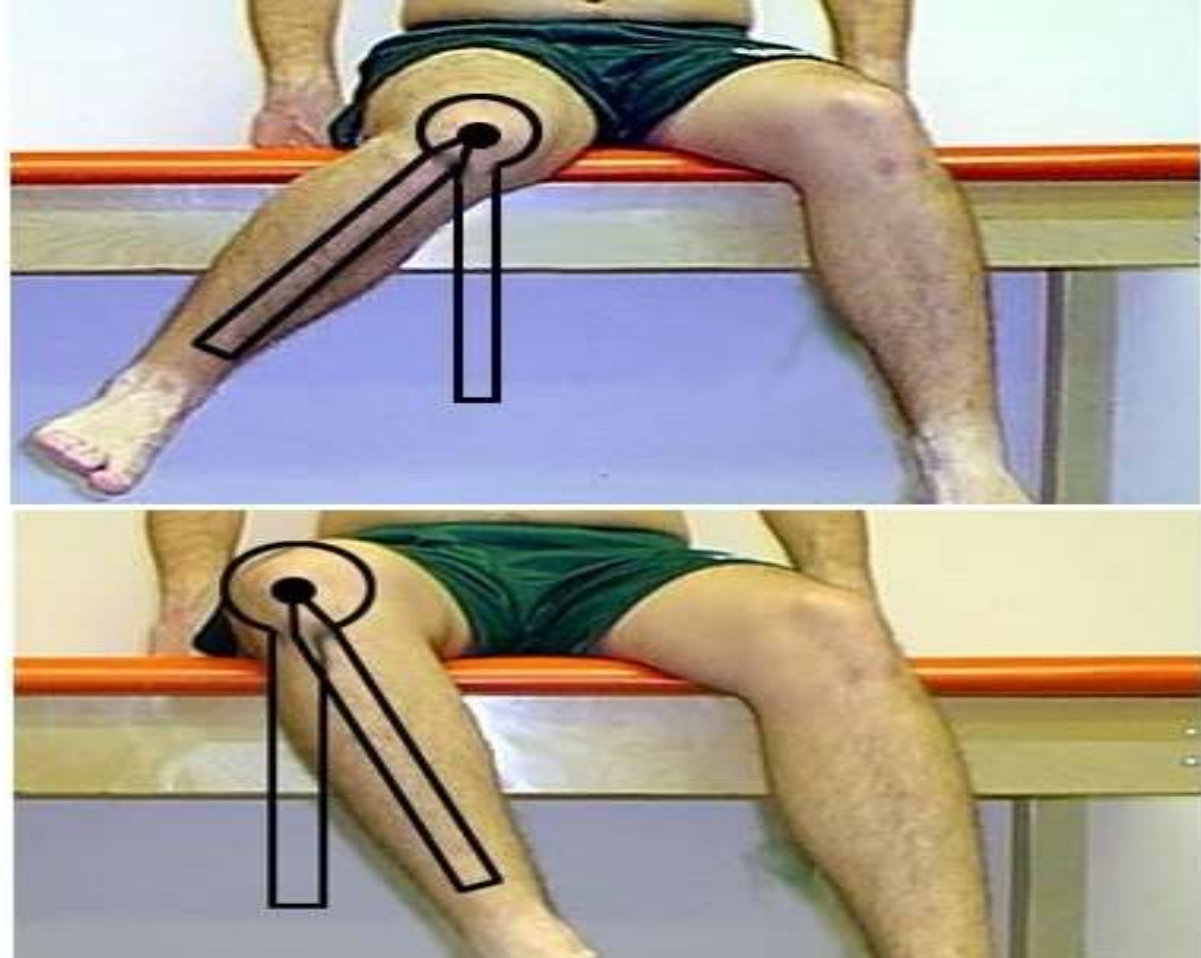
Hip – Abduction & Adduction

- **Patient position:** Supine
- **Axis:** ASIS of moving side
- **Stationary arm:** Line between both ASIS
- **Moving arm:** Anterior midline of femur
- **Normal ROM:**
 - Abduction: 0–45°
 - Adduction: 0–30°



Hip – Medial & Lateral Rotation

- **Patient position:** Sitting, hip & knee flexed 90°
- **Axis:** Patella
- **Stationary arm:** Perpendicular to floor
- **Moving arm:** Anterior midline of tibia
- **Normal ROM:**
 - Medial: 0–35°
 - Lateral: 0–45°



Knee Joint – Flexion & Extension

- **Patient position:** Supine
- **Axis:** Lateral epicondyle of femur
- **Stationary arm:** Lateral midline of femur
- **Moving arm:** Lateral midline of fibula
- **Normal ROM:**
 - Flexion: 0–135°
 - Extension: 0°



- **Patient position:** Supine, knee flexed
- **Axis:** Lateral malleolus
- **Stationary arm:** Lateral midline of fibula
- **Moving arm:** Lateral midline of 5th metatarsal
- **Normal ROM:**
 - Dorsiflexion: 0–20°
 - Plantarflexion: 0–50°



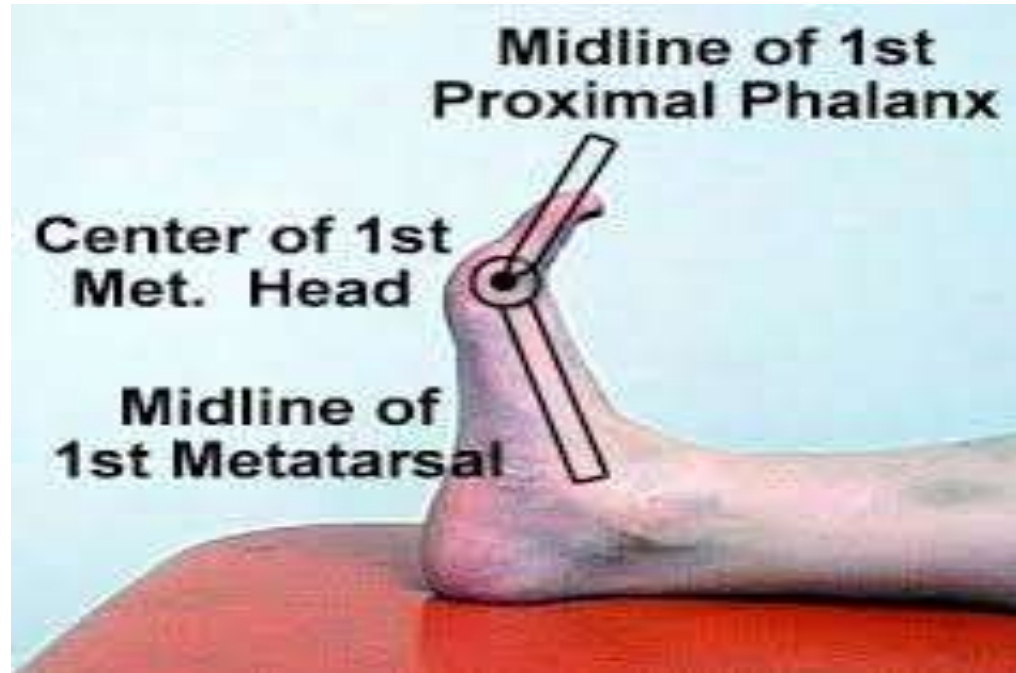
Subtalar Joint – Inversion & Eversion

- **Patient position:** Prone, foot over edge
- **Axis:** Anterior ankle between malleoli
- **Stationary arm:** Midline of tibia
- **Moving arm:** Midline of calcaneus
- **Normal ROM:**
 - Inversion: 0–35°
 - Eversion: 0–15°



Toe (MTP) – Flexion & Extension

- **Patient position:**
Sitting/ supine
- **Axis:** MTP joint
- **Stationary arm:** Along metatarsal
- **Moving arm:** Along phalanx
- **Normal ROM:**
 - Flexion: 0–45°
 - Extension: 0–70°



- Stabilize pelvis and leg
- Avoid pelvic tilt substitutions
- Compare bilateral ROM
- Document accurately



- Clarkson HM. Musculoskeletal Assessment: Joint Range of Motion and Manual Muscle Testing
- Norkin CC, White DJ. Measurement of Joint Motion: A Guide to Goniometry

