SNS COLLEGE OF PHYSIOTHERAPY

COIMBATORE-35

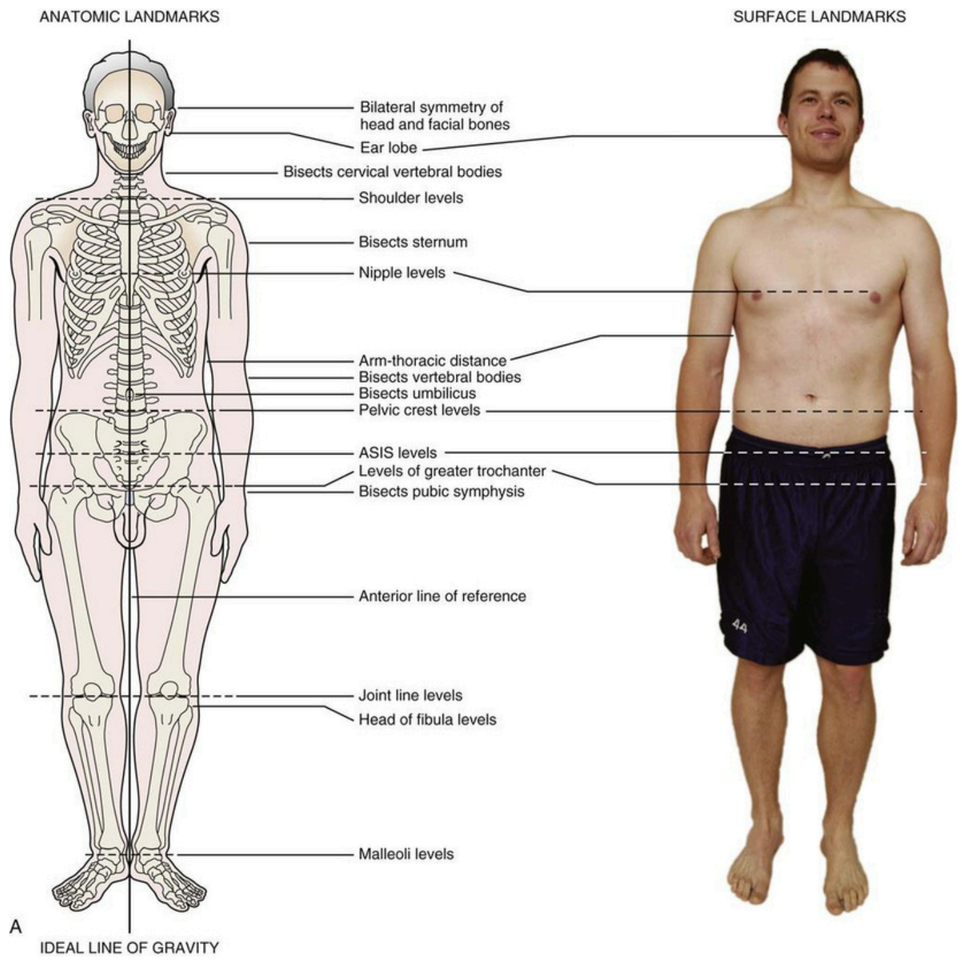
COURSE NAME:BIOMECHANICS

2nd year

TOPIC : POSTURE

Empathize

- Understand the patient's concerns regarding posture
- Identify pain points: neck pain, back pain, shoulder tightness
- Observe lifestyle habits: prolonged sitting, screen use, sleeping posture
- Ask the patient about functional limitations (walking, lifting, standing)
- Build rapport and understand their goals: pain relief, aesthetics, performance



Ideate

Improvement

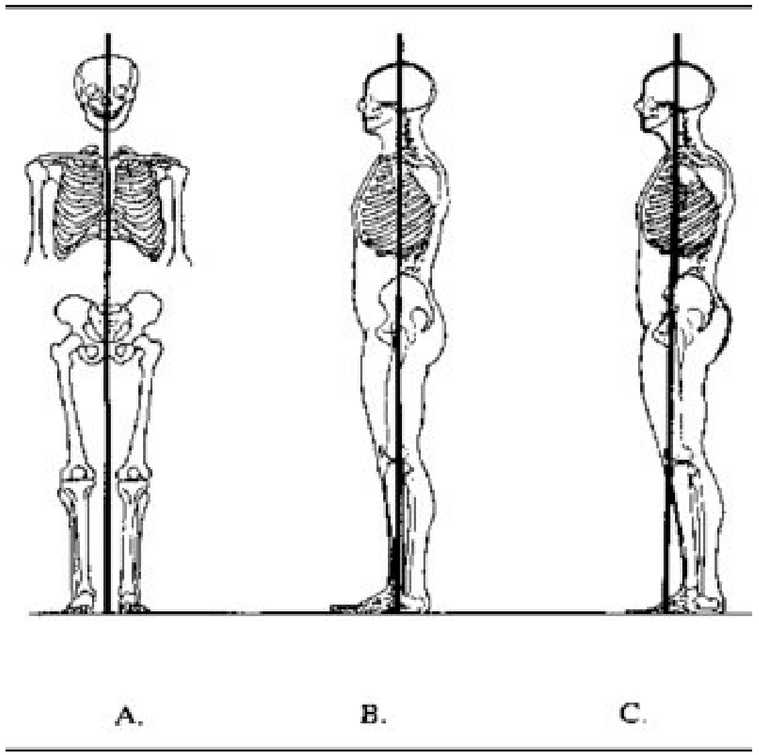
- Brainstorm corrective approaches
  - Strengthening for weak muscles
  - Stretching for tight structures
  - Ergonomic modifications (chair height, desk alignment)
- Consider movement retraining
- Identify posture cues: “Shoulders back,” “Neutral pelvis,” “Head over spine”
- Think about long-term solutions: habit formation, exercise programs

Define & Explain

- Optimal AP view: symmetry of joints
- Head centered, shoulders level, spine straight
- Pelvis level, knees aligned, feet pointing forward
- Optimal Lateral view: gravity line alignment
- LOG through: ear → shoulder → hip → slightly anterior to knee → slightly anterior to ankle
- Define common deviations: scoliosis, kyphosis, lordosis, forward head posture

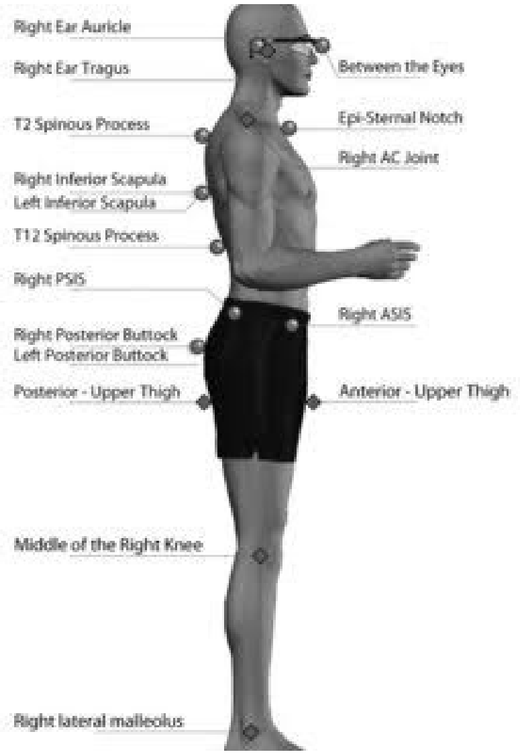
Optimal Alignment in AP View

- Head centered on the midline
- Shoulders level and symmetrical
- Scapulae flat against thoracic wall
- Pelvis level without tilt or rotation
- Knees straight and equally spaced
- Feet pointing forward, weight distributed evenly



Optimal Alignment in Lateral View

- Gravity line passes through:
- External auditory meatus
- Shoulder joint
- Through or slightly posterior to hip joint
- Slightly anterior to knee joint
- Slightly anterior to ankle joint
- Neutral spine curves: cervical lordosis, thoracic kyphosis, lumbar lordosis
- Chin level, abdomen flat, pelvis in neutral tilt



Posture Analysis: AP View

- Look for side-to-side asymmetry
- Shoulder height difference
- Pelvic obliquity
- Lateral spinal deviation (scoliosis)
- Check knee alignment: valgus, varus
- Inspect foot orientation: pronation, supination
- Ensure equal weight distribution on both limbs

Flow Chart (Roadmap)

START
|
v
Observe Posture in AP View
|
v
Observe Posture in Lateral View
|
v
Compare with Optimal Joint Alignment
|
v
Identify Deviations From Ideal Posture
|
v
Classify Posture (Optimal/Faulty)
|
v
Recommend Corrective Strategies
|
v
END

MCQs

1. In AP view, optimal posture includes:
A. Uneven shoulders
B. Level pelvis ✓
C. Lateral trunk shift
D. Pronated feet
2. The gravity line in the lateral view normally passes:
A. Posterior to ankle
B. Slightly anterior to knee ✓
C. Behind ear
D. Far anterior to hip
3. A common deviation seen in lateral posture is:
A. Pelvic obliquity
B. Forward head posture ✓
C. Shoulder elevation
D. Varus knees

MCQs

4. In AP posture analysis, a clear deviation is:

A. Level shoulders

B. Straight spine

C. Pelvic tilt ✓

D. Forward-facing feet

5. Ideal lateral alignment includes:

A. Hyperextended knees

B. LOG through ear and shoulder ✓

C. Excessive lumbar lordosis

D. Posteriorly shifted pelvis

6. Which is true regarding optimal AP alignment?

A. Scapular winging is normal

B. Knees should be symmetrical ✓

C. One hip should be elevated

D. Toes should point outward