Pelvic & Spinal Postures

Low or absent tone in the trunk muscles/lower tone/muscle control in pelvis or trunk
Abnormal (high, low, or fluctuating) tone in trunk and/or lower extremities
Pathological reflexes in lower extremities or trunk/abnormal reflexes in trunk/lower extremities
Limited hip flexion
Increased lumbar lordosis
Decreased pelvic/lumbar spine range of motion
Decreased hamstring ROM

SAGITTAL PELVIC ANGLE (Posterior Pelvic Tilt)

SAGITTAL PELVIC ANGLE (Anterior Pelvic Tilt)

FRONTAL PELVIC ANGLE (Obliquity)

TRANSVERSE PELVIC ANGLE (Rotation)

SAGITTAL STERNAL ANGLE (Upper Kyphosis)

SAGITTAL TRUNK ANGLE (Kyphosis)

SAGITTAL ABDOMINAL ANGLE (Lordosis)

SCOLIOSIS

PELVIS & LOWER EXTREMITIES

POTENTIAL CLINICAL CAUSES

Clinical Assessment Goals:

- Identify posture/orthopaedic asymmetry in each body segment
- Is asymmetry reducible or non-reducible?
- Measure angles in frontal, sagittal, and transverse planes
- Absolute angles measure angles between a line connecting 2 points of reference on the body and a neutral/plumb line
- Angles which have moved clockwise from neutral axis are (+)
- Angles which have moved counter clockwise from neutral axis are (-)

+ SAGITTAL PELVIC ANGLE

- SAGITTAL PELVIC ANGLE

PELVIC & SPINAL POSTURES

Low or absent tone in the trunk muscles/lower tone/muscle control in pelvis or trunk
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SAGITTAL PELVIC ANGLE (Posterior Pelvic Tilt)

SAGITTAL PELVIC ANGLE (Anterior Pelvic Tilt)

PELVIC & LOWER EXTREMITIES

POTENTIAL TECHNICAL (EQUIPMENT) CAUSES

Seat depth too long
Footplate position relative to knee does not accommodate tight hamstring
Front end angle/hanger angle doesn’t accommodate hamstring range
Footplates too high (thighs not loaded sufficiently)
Footplates too low (knees not loaded sufficiently)
Lack of posterior pelvic/sacral support
Back support too upright
Seat-to-floor height too high for foot propulsion
Arms too low

Increased lumbar lordosis
Weakened abdominals
Tight quadriceps
High hip flexors
Obesity

POTENTIAL CLINICAL CAUSES

Diminished disc space in upper thoracic spine
Diminished head control
Compensation for visual impairment
Compensation for posterior pelvic tilt
Postural deterioration over time
Excessive hip mobility
Hyper extended cervical spine
Diminished disc space in upper thoracic spine

Compensation for lumbar instability
Compensation for anterior tilted pelvis
Compensation for lordosis
Compensation for visual impairment
Diminished head control
Compensation for anterior tilted pelvis
Compensation for lordosis

REFERENCES:


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