

Examination of the Axial  
Spine

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# key points

- ◆ patient comfort
- ◆ examiner comfort
- ◆ security safety issues

# key points

- ◆ Observation
- ◆ Inspection
- ◆ Palpation

# Observation

- ◆ Entire kinetic chain
- ◆ Importance of limb examination
  - ◆ i.e. Limb length discrepancy
- ◆ Quality of movement patterns
- ◆ Shifts
- ◆ Insight to psychosocial factors

# Observation Posture

- ◆ Posture in all positions
- ◆ Dominant shoulder usually inferior
- ◆ Iliac crests
- ◆ flat spots, spondylololishesis
- ◆ kyphosis

# Observation Gait

- ◆ View from all positions
- ◆ Treadmill is great resource
- ◆ Standing Balance
- ◆ Crouching great screen (Duck Walk)

# Observation ROM

- ◆ Range of Motion
  - ◆ Flexion
  - ◆ Extension
  - ◆ Lat. Bending
  - ◆ Rotation
  - ◆ Provocative Maneuvers

# Observation ROM cont.

- ◆ Rotation with extension
- ◆ Single Leg extension
- ◆ Sacroiliac joint tests
  - ◆ Shear maneuvers

# Seated Neuro Exam

- ◆ Sensory
- ◆ Reflexes
- ◆ Motor
- ◆ Slump Test

# Straight Leg Raise

- ◆ Root irritation signs
  - ◆ Sitting versus Supine
  - ◆ Slump test
  - ◆ Waddell Signs

# ROM Supine and Limbs

- ◆ Hips, knees, ankles
- ◆ Limb Length issues
  - ◆ true ASIS - med. malleolus
  - ◆ apparent umbilicus - med. malleolus

# Prone Tests

- ◆ Femoral stretch
- ◆ SI joint shear
- ◆ press ups
- ◆ step offs

# Scanning Exam

- ◆ Highlight points of screening exam
- ◆ Segmental examination, palpation
- ◆ Schober's testing

# 3 - D Functional Exam

- ◆ Quality of movement patterns
  - ◆ Standing one legged squat
  - ◆ Step downs
  - ◆ 3 D Core
    - ◆ flexion, extension, side bend, rotation

# 3 - D Functional Exam

- ◆ 3 D eccentric control of the core
- ◆ 3 D Scapular reaction
- ◆ Unloaded foot evaluation

# Muscle Imbalances

- ◆ Gastrocsoleus
- ◆ Hamstring
- ◆ Psoas/Quadratus Lumborum
- ◆ Quadriceps
- ◆ Short Hip external rotatores

# Nonorganic issues

- ◆ Impression is almost everything
- ◆ Waddell 5 nonorganic (does not equate to malingerer)

# Waddell

- ◆ Tenderness
- ◆ Simulation Test
- ◆ Distraction
- ◆ Regional Disturbance
- ◆ Overreaction

# Neurologic Exam

- ◆ Reflexes
  - ◆ count from ground up
- ◆ Manual Strength and grading system
- ◆ Sensory Exam
- ◆ Root irritation

# Putting it all together

- ◆ Smooth and efficient
- ◆ Talk first, exam last
- ◆ Painful items last
- ◆ Active range before passive range, especially cervical and shoulder exams

# Putting it all together

- ◆ Don't be wishy washy
- ◆ "Pretend" you know what your doing
- ◆ Observe all parts during exam not just item tested. Non organic issues, pain in face during exam, etc.