

## Thoracic Spine

### Assessment & Management: A practical approach



#### Normal anatomy and movement

- 12 vertebrates
- Upper similar to Cervical spine
- Lower segments similar to Lumbar spine
- Additional CVJ + CTJ
- Narrow spinal canal, relatively wider intervertebral foramina
- Intervertebral foramina at level of vertebral bodies (!...nerve root compression less likely compared to Cx or Lx)

#### Movement:

- Flexion/Extension: present in lower Tx segments (similar to Lumbar)
- Rotation: Mid & Upper Tx segments relatively more mobile
- Lateral flexion: relatively small at each segment in Tx spine

#### **Bigger picture: Stability and Protection at the expense of Mobility**

#### Common dysfunctions/conditions:

- Kyphosis/Postural dysfunction (sagittal stiffness)
- CVJ dysfunction (rib cage related...!)
- Facet stiffness
- Scoliosis
- Serious pathology (heart, lungs, cancer, stomach, liver...referred pain from viscera..!)

#### Common related conditions:

- Shoulder impingement/bursitis/tear
- Cervical conditions: wry neck, headaches, nerve root, disc pathology
- Lumbar problems: Disc pathologies, nerve root, listhesis, instability/hinging (due to stiff Tx spine)

## Management principles of Active or passive mobilisation

- Distal to central/lateral to medial
- upper/lower to central
- Superficial to deeper
  
- **Commence with Extension** (self, pt o/p, PT o/p, PT mobi or manipulation)
- **Progress if Rotation** (self, pt o/p, PT o/p, PT mobi or manipulation)
- Lateral flexion can be added at any stage (preferably 'self techniques'..!)
- Flexion can be added at any stage gradually (preferably 'self techniques'..!)

**Precautions:** osteoporosis, serious pathology (heart, tumour, lungs..etc...pattern recognition..!)



## Passive mobilisation techniques:

- ★ PA/unilateral PA (Sitting, Supine, Prone)
- ★ Rotational/PA (Sitting, Prone, Supine-GATE)
- ★ CVJ mobi v/s Tx mobi

## Active Mobilisation through exercises:

- Scap-tx release
- Bow-arrow
- Mermaid
- Back extension against arc/spine corrector
- Cat-camel
- Drum roll
- Star fish (rotation)
- Rabbit (ES stretch)
- Prayer with twist (Rotation + LF)
- Foam roller (supine, rolling, extension)

## Consideration for strengthening for Sustainable & Long term results..!

- Incorporate nearby segments
- full body movement
- Functional movement/exercises



Thank You...any Questions...?