

Cervical Radiculopathy, Myelopathy and Axial Neck Pain

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National Spine Institute

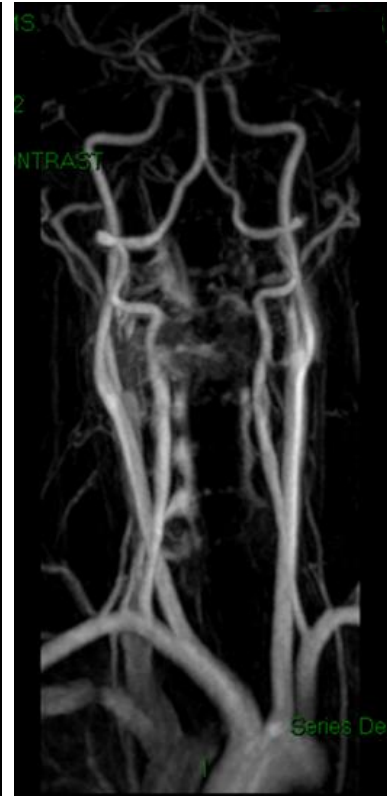
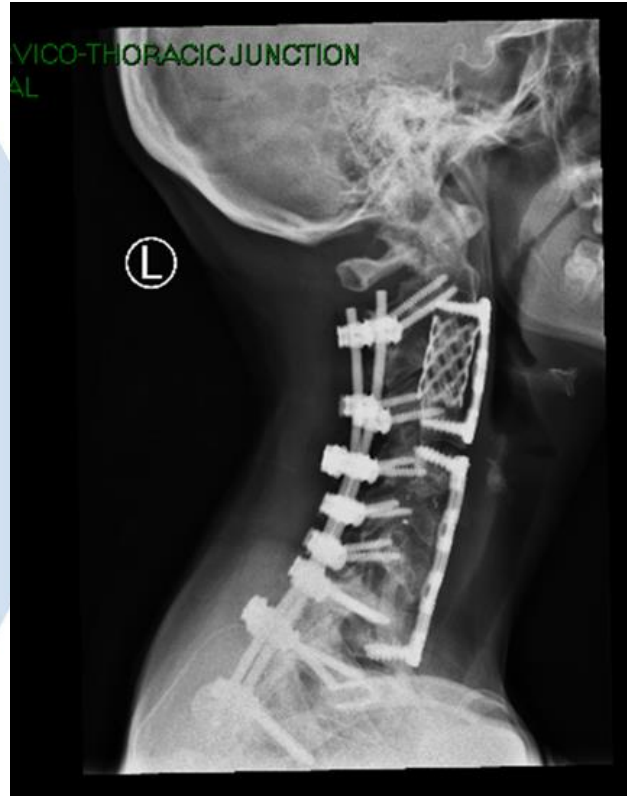


Beacon Hospital

This is Modern Medicine

Learning Objectives

- Anatomy
- Incidence and Aetiology
- Common Presentations
- History and Exam
- Investigations
- Natural History
- Non op Rx/Operative Rx
- Summary



Anatomy of Cervical Spine

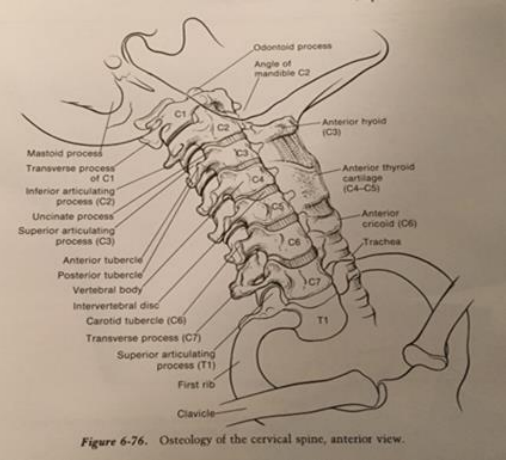
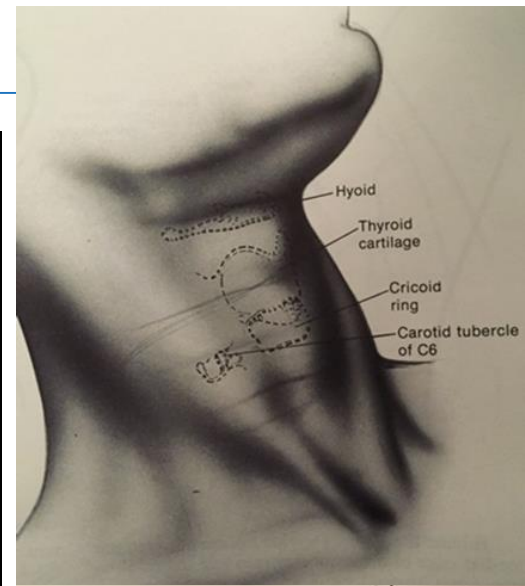
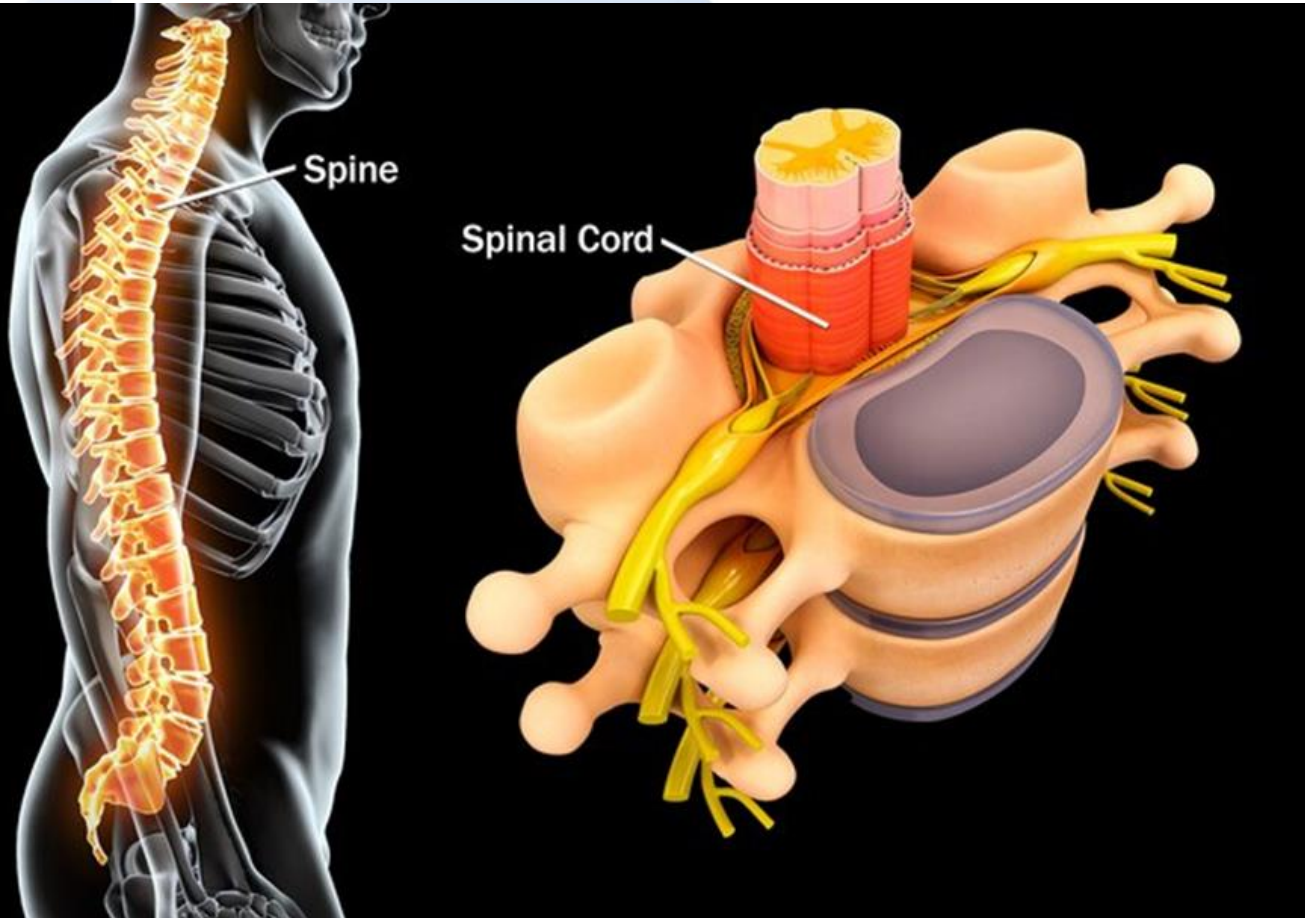
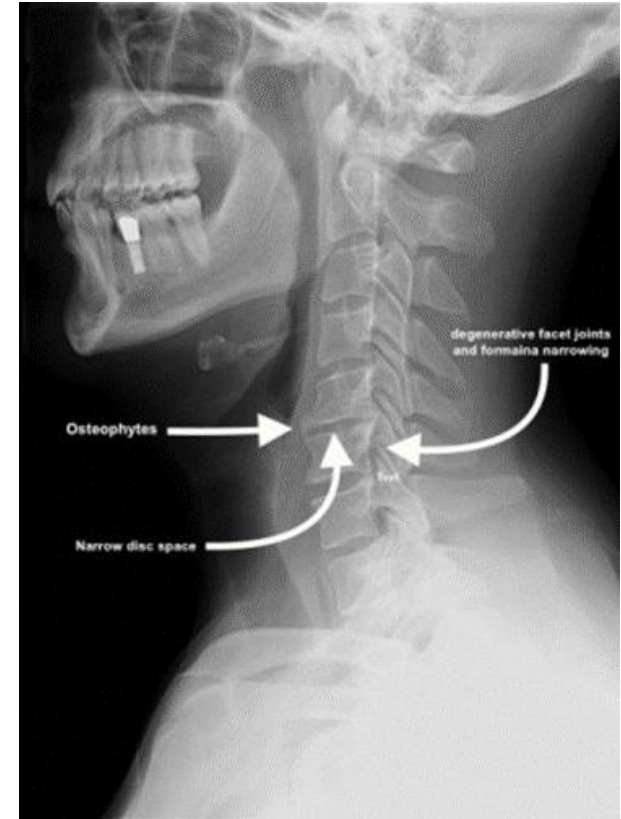


Figure 6-76. Osteology of the cervical spine, anterior view.

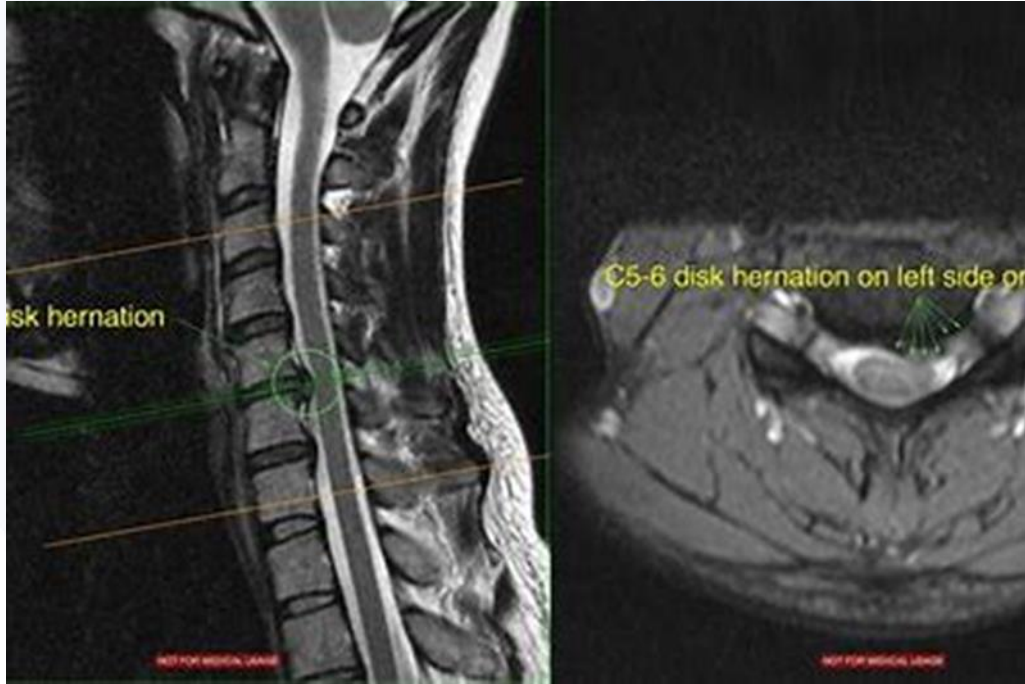
Definition & Epidemiology

- Natural Degenerative Process of Cervical Motion Segments
- Discs & Facet Joints-Usually Asymptomatic
- Axial Neck Pain
- Radiculopathy
- Myelopathy
- Begins 40yrs; 85% >65yrs
- C5/C6 > C6/C7 (Flex/Ext)
- 1-2% Surgical Intervention



Incidence of Cervical Radiculopathy and Myelopathy

Radiculopathy 1:1,000

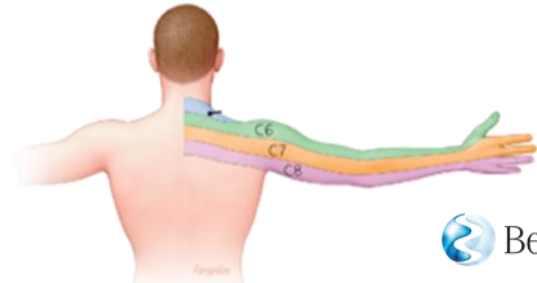
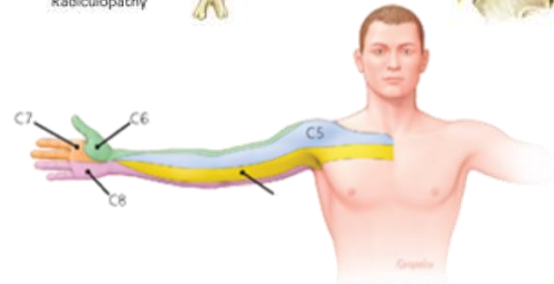
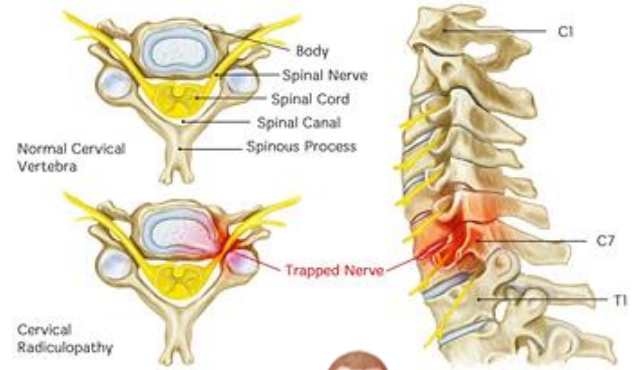


Myelopathy 1:25,000



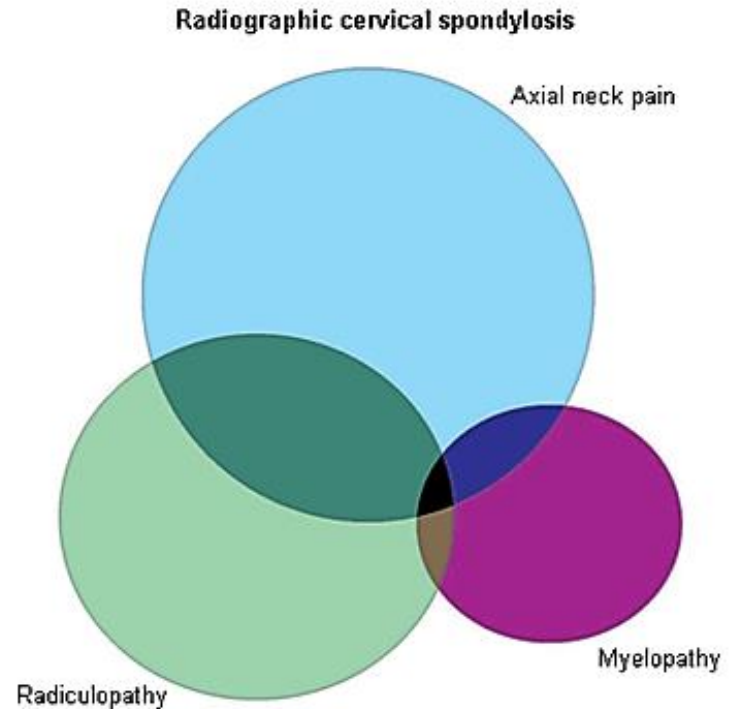
History

- Neck Pain
- Dermatomal Pain/Numbness/Paraesthesia
- Myotomal Weakness
- Balance/Manual Dexterity/Fine Motor Skills



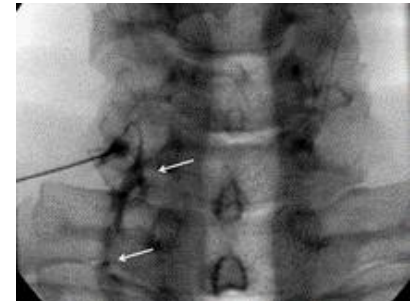
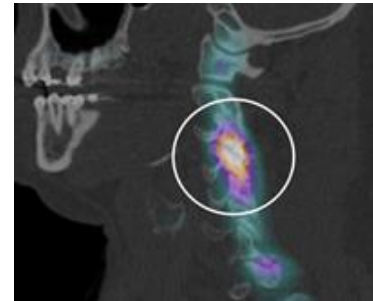
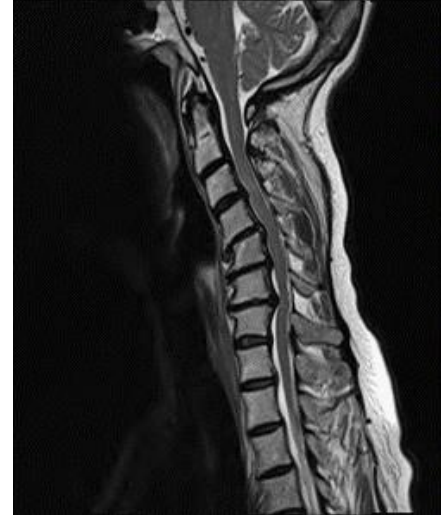
Clinical Syndromes

- Axial Neck Pain
 - Neck Muscle Pain
 - Reduced ROM, Paraspinal Spasm, Referred Pain
- Radiculopathy
 - Nerve Root Compression
 - Pain/Sensory/Motor Symptoms
- Myelopathy
 - Spinal Cord Compression
 - Balance, Manual Dexterity, Fine Motor Skills



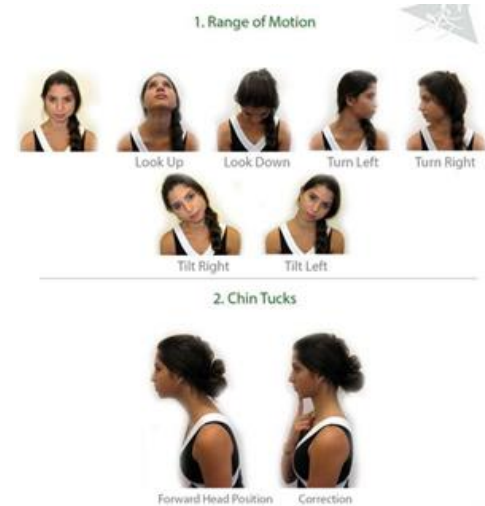
Diagnostic Investigations

- **AP/Lat (+/-Flex/Ext) X-rays**
(Disc Degen, Facet Arthrosis, Instability, Deformity)
- **MRI**
(Disc Degen, Spinal Cord/Nerve Root Compression)
- **SPECT/CT**
(Pain Generators, Surgical Planning)
- **EMG/NCS**
(Muscle Denervation, Root/Peripheral Nerve Compression)
- **SNRB/Cervical epidural**
- +ve if Radiculopathy



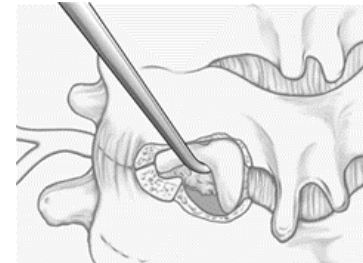
Axial Neck Pain Pathway

- **Physiotherapy**
(Stretching, Strengthening, Deep Massage, Traction)
- Acupuncture/Chiropractic Treatment
- **Medication**
(Analgesia, NSAIDs, Muscle Relaxants)
- **Injections**
(Trigger Pt, Facet Jts)
- **No Surgery**



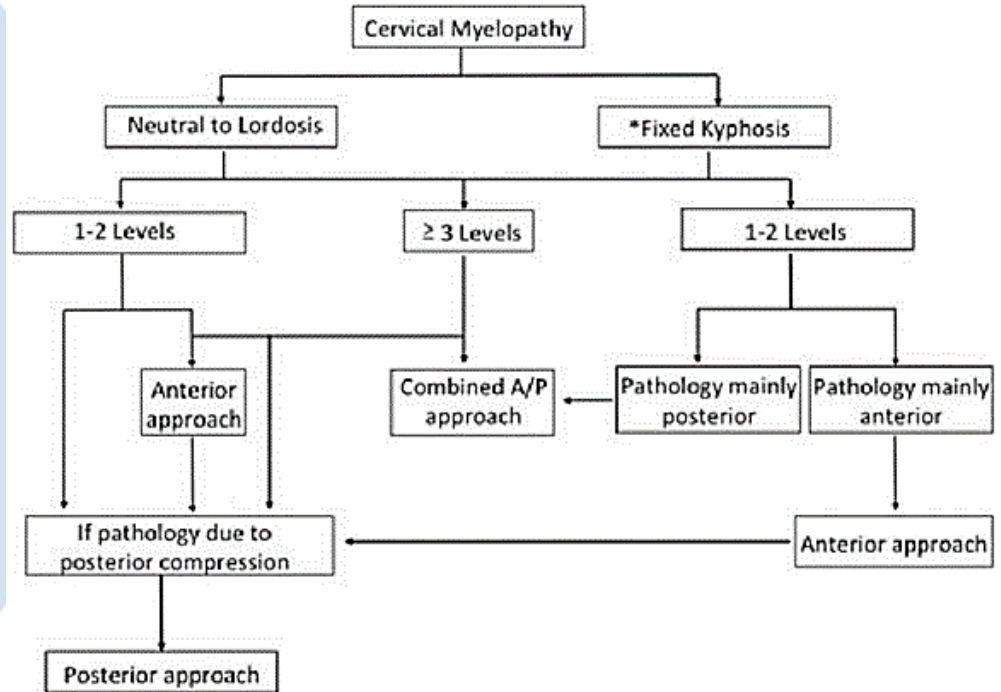
Radiculopathy Pathway

- **Physiotherapy**
- **Medication**
 - Analgesia, NSAIDs, Neuropathic, Steroids
- **Injections**
 - SNRB, Epidural
- **Surgery**
 - ACDF, CDR, Posterior Foraminotomy



Myelopathy Pathway

- **Observation**
- Minimal Symptoms
- Poor Surgical Candidate
- **Surgery**
- Anterior
- CDR/ACDF/ Corpectomy
- Posterior
- PCDF/Laminoplasty



Surgical Options and Recovery

- Anterior Cervical Discectomy and Fusion ACDF
- Cervical Disc Replacement
- Posterior Cervical Decompression and Instrumented Fusion PCDF
- Laminoplasty
- Lamino-foraminotomy

Recovery

- Hospital 1-2 days
- Dysphagia 2-3/52
- Off work desk 3-4/52
- Manual 8/52
- Back to “normal” 3-6/12

Summary

Natural Degenerative Process of Cervical Motion Segments

Usually Asymptomatic

- Axial Neck Pain, Radiculopathy, Myelopathy

Thorough History & Exam is Essential

- Nerve Root or Spinal Cord Compression

MRI is Gold Standard Investigation

Surgery Required in 1-2%

- Failed Non-Operative Treatment or Signs of Myelopathy

Thank You and Questions?

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