## SAMPLE REVIEW: **Cervical spine, lumbar spine, shoulder**

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Sagittal plane MR image of the cervical spine reveals straightening of normal curvature from patient positioning or paravertebral muscle spasm. There is no bone marrow edema, fracture or epidural hematoma. Mild chronic degenerative changes evidenced by reduced intervertebral disc signal intensities (disc desiccation, yellow arrows). For reference, the C7-T1 disc has relatively signal intensity (green arrow). There is no prevertebral swelling or paraspinal edema seen on STIR imaging (highly sensitive sequence for acute trauma)





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Transverse plane MR images at cervical intervertebral disc levels (and corresponding sagittal image for reference) show minimal broad disc osteophyte complexes without focal herniation (blue shaded regions) causing minimal effacement of the ventral thecal sac and mild narrowing pf the left C4-C5, bilateral C5-C6 and bilateral C7-T1 neuroforamina (asterisks). Congenital cervical canal stenosis with AP diameter of the canal measuring approximately 1.1 cm from C3 to C6 (see STIR image below) without cord compression.





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Sagittal plane

Coronal plane

Transverse plane

Orientation

Sagittal plane MR images of the lumbar spine reveals normal lordosis. There is no bone marrow edema, fracture or epidural hematoma. Normal intervertebral disc height and signal intensity. Mild broad bulges at L3-L4, L4-L5 and L5-S1 (yellow arrows). Mild inferior neuroforaminal narrowing bilaterally at L4-L5 and on the left at L5-S1 but with preserved perineural fat



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Transverse plane MR images at in the lower lumbar spine reveal broad disc bulges at L3-L4, L4-L5 and L5-S1 (blue shaded areas) and mildly thickened ligamentum flavum (red arrows) encroaching on the inferior aspects of the neuroforamina. The foramen are widely patent superiorly with preserved perineural fat (yellow arrows). No significant spinal canal stenosis at any level however the bulging disc may be contacting the descending bilateral L5 and the descending left S1 nerve roots in the lateral recesses (green circles)





Right shoulder MRI show no fractures, no rotator cuff tear or labral tears, no effusion, no cartilage defect, no hematoma and no soft tissue swelling. Mild supraspinatus and subscapularis tendinopathy (yellow arrows). Normal bicep tendon. Normal AC joint





#### In summary:

The cervical spine imaging demonstrates no fracture or injury. There are clearly very mild degenerative changes on a background of mild cervical spinal canal stenosis

The lumbar spine imaging demonstrates no fracture or injury. There are age indeterminate broad disc bulges that slightly touch the descending L5 and S1 nerve roots which may be a source of radicular pain; however there is no nerve root impingement. Based on the lack of associated traumatic findings, this is on the basis of degenerative changes.

The right shoulder imaging demonstrates no acute injury.

With a reasonable degree of medical certainty based on review of the above images; it is my opinion that the patient has no acute traumatic injuries to the cervical spine or right shoulder. Lumbar spine findings cannot be proven to be acute or chronic but are likely chronic based on the lack of associated traumatic findings and are not significant enough to cause nerve root impingement.