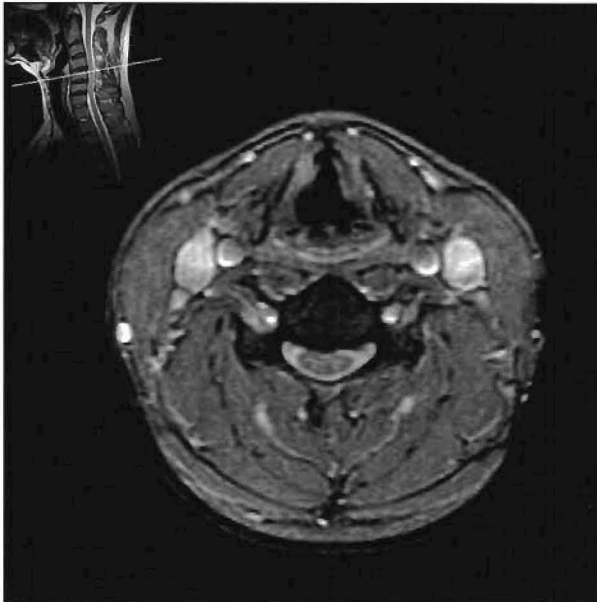




Recumbent



Standing Extension



Recumbent



Standing Extension

### Patient History

37-year-old male with bilateral tingling in hands. Pain with flexion of the cervical spine. Increasing symptoms over a five-year period.

The images shown above were acquired on *Indomitable™*, the Stand-Up MRI™ (FONAR Corporation, Melville, NY). The upper left sagittal image was acquired with the patient in a conventional recumbent position; the sagittal image to its right is of the same patient, but in a standing position during extension. The standing-extension image demonstrates marked stenosis of the central spinal canal resulting from further posterior disc protrusions extending into the anterior spinal canal and focal ligamentous infolding posteriorly. Note that the resulting compression of

the underlying spinal cord is not evident on the recumbent scan. (Scanning parameters for sagittal scans: TR= 3000 msec; TE = 160 msec; ETL = 15; 4.0 mm slice; scan time: 2:55 min - recumbent, 3:19 min - standing extension.)

The gradient recalled echo axial images are from the same patient. The standing extension image (bottom right) demonstrates a focal disc herniation at C4/5 level that is not visible on the recumbent scan (bottom left). Patient positioning clearly plays a critical role in detecting clinically significant spinal pathology. Note that a final diagnosis based only on the recumbent scan would result in a missed pathologic diagnosis. (Scanning parameters for axial scans: TR = 506 msec; TE = 22 msec; FA = 20°; 4.0 mm slice; scan time: 5:04 min.)