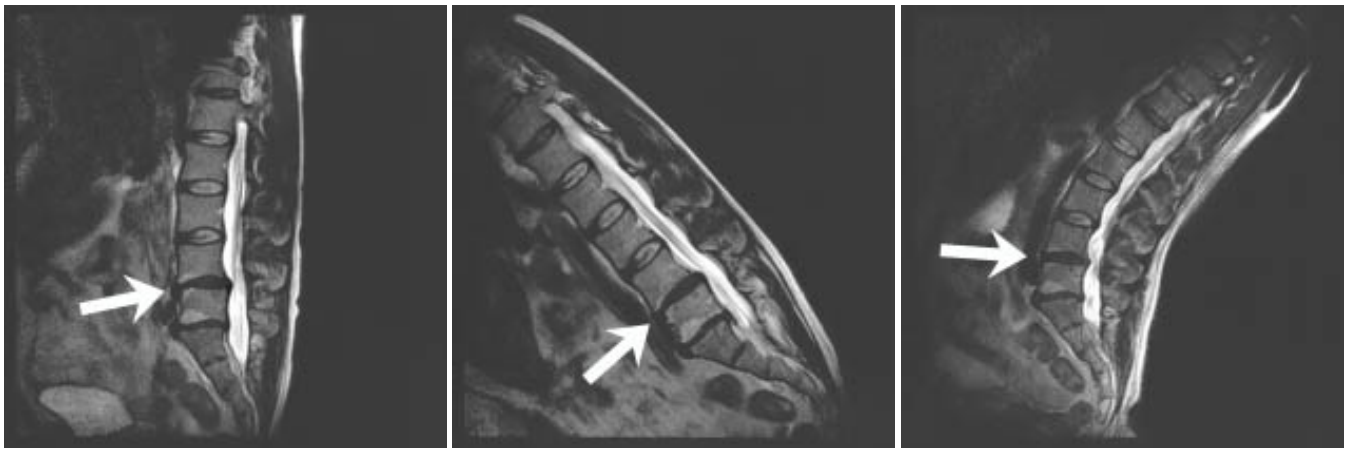
Spondylolisthesis shown to require additional fusion segment once its degree of instability, not visible by recumbent-only MRI, was demonstrated by Fonar Upright MRI.

Clinical Case Overview
The patient was a 49-year-old male who had had a 20-year history of chronic back pain and a three-year history of right lower extremity radiculopathy.

Prior to the Upright" scan, the patient was scanned in a recumbent-only MRI (1.5T). It showed a right paracentral disk herniation at L5-S1. Based on the recumbent images, neurosurgeon Bennie W. Chiles III, M.D., said:



Neutral-Sit Flexion Extension

I would have likely performed a diskectomy at L5-S1 to relieve pressure on the nerve root, along with an L5-S1 fusion for the back pain. Fusing L4-5 was not an initial consideration because no spinal instability was seen on the recumbent MRI.

When the dynamic flexion and extension images performed in the Upright" MRI demonstrated an instability at L4-5 and showed the full extent of that instability once the patient s body weight was applied, I chose to also fuse L4-5 during the procedure rather than treat L5-S1 alone.

The result was a better outcome for the patient whose severe right leg pain is now gone and whose back pain is much reduced.

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