

# MRI findings linked to effect of lumbar spine surgery

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Certain findings on magnetic resonance imaging are linked with surgical outcome in patients with lumbar intervertebral disc herniation, according to research published in the June 15 issue of *Spine*.

(HealthDay)—Certain findings on magnetic resonance imaging (MRI) are linked with surgical outcome in patients with lumbar intervertebral disc herniation, according to research published in the June 15 issue of *Spine*.

In an effort to examine the association between baseline MRI findings and surgical treatment effect, Jon D. Lurie, M.D., of the Dartmouth Medical School in Lebanon, N.H., and colleagues retrospectively reviewed images from a cohort of patients treated surgically and non-surgically for lumbar [intervertebral disc](#) herniation. Forty percent of the cohort consisted of women (average age, 41.5 years), 61 percent of whom were surgically treated with discectomy.

The researchers found that patients with Modic type I endplate changes had significantly worse outcomes and smaller treatment effect from surgery. Within the surgical group, those with thecal sac compression of one-third or greater showed the greatest improvement and the highest treatment effect. Worse [surgical outcomes](#) were observed in patients with minimal nerve root impingement.

"Among patients with intervertebral [disc herniation](#), those with thecal sac compression of one-third or more had greater surgical treatment effect than those with small disc herniations and Modic type I changes," write the authors. "In addition, patients with nerve root 'compression' and 'displacement' benefit more from surgery than those with minimal nerve root impingement."

**More information:** [Abstract](#)  
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