

## **Additional operations after surgery for lumbar disc prolapse: INDICATIONS, TYPE OF SURGERY, AND LONG-TERM FOLLOW-UP OF PRIMARY OPERATIONS PERFORMED FROM 2007 TO 2008**

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### **Aims**

The aim of this study was to analyze reasons for additional surgery for patients operated on for a primary lumbar disc prolapse (LDP).

### **Methods**

We retrieved data from the Swespine about 3,291 patients who underwent primary surgery for LDP between January 2007 and December 2008. These patients were followed until through 2020 to record all additional lumbar spine operations.

### **Results**

In total, 681 of the 3,291 patients (21%) needed one or more additional operations. 906 additional operations were identified, with a mean time to the first of these of 3.7 years (SD 3.6). The most common reason for an additional operation was recurrent LDP (47%), followed by spinal stenosis or degenerative spondylolisthesis (31%), and segmental pain (16%). The most common surgical procedures were revision discectomy (43%) and instrumented fusion (22%). Degenerative spinal conditions other than LDP became more common reason for additional surgery with increasing length of follow-up. Most patients achieved the minimally important change (MIC) for the patient-reported outcomes after the index surgery. After the third additional spinal operation, only 20% achieved the MIC in terms of leg pain, and 24% in terms of the EQ-5D VAS.

### **Conclusion**

21% of patients operated on for a LDP underwent further surgery during the 13-year follow-up period. Recurrent LDP was the most common reason for additional surgery, followed by spinal stenosis and segmental pain. This study shows that additional operations after primary disc surgery are needed more frequently than previously reported, and that the outcome profoundly deteriorates after the second additional operation.