

Non instrumented lumbar fusion

see The Current Role of Un-Instrumented Lumbar Fusion ¹⁾.

Non-instrumented lumbar fusion is an accepted technique for the treatment of various spinal degenerative pathologies.

A meta-analysis found that inclusion of fusion surgery with instrumentation provided no benefit as evaluated by patient-reported outcomes in patients with lumbar spondylolisthesis ²⁾.

In 376 patients, with a mean age of $61.1 \pm$ standard deviation of 13.54 years. The most common presenting symptom was back pain in 344 (91.5%) patients, followed by radiculopathy in 304 (80.9%) patients. The most common pre-operative diagnosis was multi-level spinal stenosis with claudication in 211 (56.1%) patients. At last follow-up, the prevalence of back pain (60.64%; $p < 0.001$) and radiculopathy (57.71%; $p < 0.001$) were significantly lower. The cumulative rate of ASD was 18.35% (69 patients). In total, the rate of re-operation due to non-improvement or worsening of symptoms was 30.59% (115 patients). In this manuscript, we present one of the largest cohorts of patients undergoing in situ fusion for degenerative lumbar spine disease with a median follow-up time of 92 (range 24-154) months. Although the prevalence of both back pain and radiculopathy was significantly reduced at last follow-up, a significant portion of patients still experienced continued symptoms. Notably, while 18.35% of patients developed ASD, 30.6% of patients required re-operation due to recurrent or worsening symptoms during the follow-up period, highlighting the need for additional stabilization techniques ³⁾.

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