

SURGERY or NOT SURGERY

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Deyo, R.M. and J.D. Weinstein. Low back pain. NEJM 2001; 344(5):363-369. There is no evidence from clinical trials or cohort studies that surgery is effective for patients who have low back pain unless they have sciatica, pseudoclaudication, or spondylolisthesis. In the absence of cauda equina syndrome or progressive neurological deficit, patients with suspected herniated disc should be treated non-surgically for at least a month. Multiple surgical procedures are rarely helpful.

Ito, T. et al. Spine 2001; 26(6):648-51 and Postacchini F. Lumbar disc herniation. Spine 2001; 26(6):601. Patients with uncontained lumbar disc herniation (UDH) – one that has breached the annulus – can be treated without surgery if they can tolerate their symptoms for the first two months. The body's defense system attacks and absorbs uncontained disc herniations, leading to early radiographic and clinical resolution. Prospective study – all these orthopedic surgeons' patients with disc herniation symptoms underwent conservative care for at least 8 weeks – except with cauda equina syndrome, severe motor weakness. This protocol reduced disc surgery rate by almost 50%. None of the patients who waited at least eight weeks had an uncontained disc herniation at surgery. Findings provide further evidence that uncontained disc herniation often resolve quickly.

Bigos, M.D. – AHCPR Guidelines. Patient Guide: Even a lot of back pain by itself does not mean you need surgery. Surgery has been found to be helpful in only 1 in 100 cases of low back pain.

Frankling, M.D. – Journal of Spine 1994; 19 (17): 1897-1904. Work comp study of 388 patients who had lumbar fusions at two year post surgery follow-up. Overall, 68% were disabled and 23% required further lumbar surgery. Most patients, 67.7% reported that back pain was worse and overall quality of life 58.5% was no better or worse than before surgery.

McCulloch, M.D. – Spine 1996; 21 (24a): 45s-56s. More than 90% of lumbar disc herniations improve with conservative care. Approximately 2-4% of patients with lumbar disc herniations have indications for surgical inervation. Surgery results in less pain for 4-5 weeks compared to conservative care. The decision to operate usually depends on the patient's preference rather than necessity.

Saal, J.A., M.D. – Spine 1997; 22 (14): 1545-1552. In the 1980's with the growth of advanced imaging, new surgical techniques and a surge in sub-specialties trained spine surgeons, spine care began to flourish and surgery rates went through the roof increasing by over 110%. Patients were often left on their own after surgery being told that all that could be done had been done and they would have to learn to live with their condition. Exercise and physical rehab were felt to be useless by most surgeons. Data began to accumulate that non-surgical treatment such as rehab and exercise could improve patients' function even without addressing the structure abnormalities.

Loupasis, M.D. – Spine 1999; 24 (22): 2313-2317. This study was to assess the effects of surgery for lumbar disc herniation over an extended period of time. 109 patients with surgically documented herniated lumbar discs were followed-up at 12 years and were asked several questions regarding pain relief, satisfaction, activities levels and re-operations. The results were 28% still complained of significant back pain or leg pain. Re-operation rate was 7.3% which was 8 patients. The conclusion is long term results of standard lumbar discectomy are not very satisfying. More than 1/3 of patients had unsatisfactory results and more than ¼ complained of significant residual pain.

Wiesel, M.D. – Back Letter 1994; 9 (4): 37, 38, 44. There is no scientific evidence that higher surgery rates are doing patients any good. There is little evidence that they provided long term benefits in low back pain relief.

Saal, M.D. – Spine 1995; 20 (16): 1821-1827. Structural changes do not necessarily predict levels of pain or disability. Experience indicates that removal or correction of structural abnormalities may fail to cure and may even worsen painful conditions.

Sihvonen – Spine 1993; 18 (5): 575-581. This study looked at subjects who had failed back surgeries. It stated that disturbed back muscle, innervation and loss of muscular support leads to disability and increased bio-mechanical strain and may be an important cause of failed back syndrome. Denervation and atrophy of the low back muscles can occur leading to loss of functional muscle support due to disturbed segmental mobility and further increase bio-mechanical strain and disability. In addition, muscles in un-operated levels seemed more atrophied probably due to disuse. Low back surgery can cause severe lesions to the back muscle innervation and denervation atrophy in back muscles.

Gejo, M.D. – Spine 1999; 24 (10): 1023-1028. This study evaluated the influence of surgically related back muscle injury on post operation muscle performance in low back pain. The patients were divided into two groups – those whose muscles were retracted from the spine less than 80 minutes and those whose muscles were retracted from the spine greater than 80 minutes. The back muscle injury was directly related to the muscle retraction time during surgery. The damage to the multifidi was more severe in recovery of extensor muscle strength and was delayed in the long retraction time group. In addition, the incidence of post op low back pain was higher in the long retraction time group. The conclusion was it is beneficial to shorten retraction time to minimize back muscle injury and subsequent post op low back pain.

Wiesel, M.D. – Back Letter 1994; 9 (12): 133, 142. This study found 68% of surgical candidates with discogenic low back pain who didn't have surgery were substantially better three years later. Very few studies of fusion surgery for back pain show success rates as high as 68%.

Persson, Carlsson, M.D., PhD. – Spine 1997; 22 (7); 751-758. This article talks about treatments for cervical radicular pain. This study compared subjects who use a cervical collar, P.T., or surgical treatment in any one patient with long lasting cervical radicular pain. This study showed that it appears that such simple treatment as a collar or possibly even no treatment is as effective in the long run as PT or surgery. The current study cannot support the indication for surgery.