



## SCS for Failed Back Surgery Pain

### Fact Sheet

#### SPINAL CORD STIMULATION FOR FAILED BACK SURGERY PAIN

The number of back surgeries in the United States increased dramatically between 1992 and 2003.<sup>1</sup> Correspondingly, so has the number of patients experiencing failed back surgeries. Physicians refer to the chronic pain a patient suffers after undergoing unsuccessful surgery to relieve back pain as “failed back surgery syndrome” (FBSS), or post-laminectomy syndrome. The prevalence of FBSS in the United States is not exactly known, but it has been estimated to affect nearly 30 percent of spinal surgery patients<sup>2</sup>.

#### TREATING FAILED BACK SURGERY SYNDROME

For a patient with FBSS, treatment options usually are very limited. This is because more conservative and less invasive measures typically have been tried already, without success. After the failure of one back surgery, patients may have the option of another back surgery. Some patients also are given the choice of spinal cord stimulation (SCS), which has been available for several years with good results for many FBSS patients.

In a study published in 2005, FBSS patients were randomly assigned either to have an SCS system implanted or to have a repeat back surgery. The study found that 47 percent of patients treated with SCS were satisfied with the therapy, experiencing at least a 50 percent reduction in pain; however, only 12 percent of patients with repeat surgery were satisfied. All of the patients were given the opportunity to try the treatment that they had not been originally assigned. Of those who had an additional procedure, 43 percent of the repeat-surgery patients who tried SCS were satisfied with SCS, but none of the SCS patients who tried repeat surgery were satisfied with the additional surgery.<sup>3</sup>

In a 2007 study, 74 percent of the patients studied said that SCS was beneficial. The authors concluded that SCS does decrease the low back pain associated with FBSS.<sup>4</sup> Further, in a comprehensive review of medical literature by the department of neurosurgery at Wayne State University, it was reported that SCS was an effective treatment for FBSS pain, with 60 to 80 percent of patients achieving effective pain relief with SCS. Additionally, these patients had significant improvements in their quality of life and a much greater chance of returning to work than patients who did not undergo SCS.<sup>5</sup>

#### COST OF THERAPY

In the United States, Medicare spending for inpatient back surgery more than doubled between 1992 and 2003. The biggest increase was in lumbar fusion surgery, which jumped from \$75 million to \$482 million, accounting for almost half of the more than \$1 billion dollars spent on back surgeries in 2003.<sup>1</sup>

A 2004 review of medical literature revealed that SCS was cost effective for the treatment of chronic pain. The researchers concluded that SCS saved money in the long run by reducing patients' demand for future healthcare.<sup>6</sup> One study by British researchers also showed SCS to be less costly and more effective than conventional, *non-surgical* medical care over the course of a patient's life.<sup>7</sup>

In an article published in *Pain Practitioner* in 2006, two European doctors wrote, “Studies consistently report that over time, SCS is potentially cost saving to the healthcare system. At present, SCS is considered a ‘last resort’ in the treatment of refractory neuropathic pain, yet evidence suggests that early intervention with SCS results in greater efficacy and, in the case of FBSS, should be considered before re-operation.”<sup>8</sup>

## PATIENT RESOURCES

People suffering from pain after back surgery should talk with a physician, such as an interventional pain physician, or other healthcare provider about their symptoms. More information about SCS is available at [www.PowerOverYourPain.com](http://www.PowerOverYourPain.com).

## SOURCES FOR STATISTICS AND ADDITIONAL INFORMATION FOR PATIENTS AND JOURNALISTS:

- [www.PowerOverYourPain.com](http://www.PowerOverYourPain.com)
- [www.NationalPainFoundation.org](http://www.NationalPainFoundation.org)

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### Sources:

- 1 Weinstein JN, Lurie JD, Olson PR, Bronner KK, Fisher ES. United States' trends and regional variations in lumbar spine surgery: 1992-2003 [abstract]. *Spine*. 2006;31(23):2707-2714. Taken from: PubMed. Available at: [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list\\_uids=17077740](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=17077740). Accessed April 30, 2007.
- 2 Javid MJ, Hadar EJ. Long term follow-up review of patients who underwent laminectomy for lumbar stenosis: a prospective study. *J Neurosurg*. 1998;89(1):1-7. Taken from: PubMed. Available at: [http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=ShowDetailView&TermToSearch=9647165&ordinalpos=1&itol=EntrezSystem2.PEntrez.Pubmed.Pubmed\\_ResultsPanel.Pubmed\\_RVDocSum](http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=ShowDetailView&TermToSearch=9647165&ordinalpos=1&itol=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum). Accessed June 8, 2007.
- 3 North RB, Kidd DH, Farrokhi F, Piantadosi SA. Spinal cord stimulation versus repeated lumbosacral spine surgery for chronic pain: a randomized, controlled trial. *Neurosurgery*. Jan 2005;56(4):98-107.
- 4 De Andres J, et al. Patient satisfaction with spinal cord stimulation for failed back surgery syndrome [abstract]. *Rev Esp Anesthesiol Reanim*. 2007 Jan;54(1):17-22. Taken from: PubMed. Available at: [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list\\_uids=17319430&query\\_hl=2&itool=pubmed\\_docsum](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=17319430&query_hl=2&itool=pubmed_docsum). Accessed April 25, 2007.
- 5 Lee AW, Pilitsis JG. Spinal cord stimulation: indications and outcomes [abstract]. *Neurosurg Focus*. 2006 Dec 15;21(6):E3. Taken from: PubMed. Available at: [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list\\_uids=17341047&query\\_hl=2&itool=pubmed\\_docsum](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=17341047&query_hl=2&itool=pubmed_docsum). Accessed April 25, 2007.
- 6 Taylor RS, et al. The cost effectiveness of spinal cord stimulation in the treatment of pain: a systematic review of the literature. *Journal of Pain and Symptom Management*. Apr 2004;27(4) 370-378. Taken from: ScienceDirect. Available at: [http://www.sciencedirect.com/science?\\_ob=ArticleURL&\\_udi=B6T8R-4C1C83C-C&\\_user=10&\\_coverDate=04%2F30%2F2004&\\_rdoc=1&\\_fmt=&\\_orig=search&\\_sort=d&view=c&\\_acct=C000050221&\\_version=1&\\_urlVersion=0&\\_userid=10&md5=a64adacf1044ee2fa755266cef07b45c](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6T8R-4C1C83C-C&_user=10&_coverDate=04%2F30%2F2004&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=a64adacf1044ee2fa755266cef07b45c)
- 7 Taylor RJ, Taylor RS. Spinal cord stimulation for failed back surgery syndrome: a decision-analytic model and cost-effectiveness analysis [abstract]. *Int J Technol Assess Health Care*. 2005 Summer;21(3):351-358. Taken from: PubMed. Available at: [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list\\_uids=16110715&dopt=Abstract](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=16110715&dopt=Abstract). Accessed April 26, 2007.
- 8 De Andres J, Van Buyten JP. Neural modulation by stimulation [abstract]. *Pain Pract*. 2006 Mar;6(1):39-45. Taken from: PubMed. Available at: [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list\\_uids=17309708&query\\_hl=2&itool=pubmed\\_docsum](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=17309708&query_hl=2&itool=pubmed_docsum). Accessed April 25, 2007.