



BACK PAIN

## Which Road Leads to Spine Surgery?

*WHETHER A PATIENT GOES UNDER THE KNIFE HAS A LOT TO DO WITH WHETHER THEY SEE YOU OR A SURGEON FIRST.*

Peter W. Crownfield

According to the Mayo Clinic,<sup>1</sup> "back surgery is needed in only a small percentage of cases. Most back problems can be taken care of with nonsurgical treatments, such as anti-inflammatory medication, ice, heat, gentle massage and physical therapy." Accurate on face value, but missing an important piece of the puzzle, of course. Yes, while back pain is rampant, surgery is rarely required; even the Mayo Clinic admits that while "back pain is extremely common ... surgery often fails to relieve it." However, chiropractic is glaringly absent from the nonsurgical recommendations, despite ample research evidence supporting chiropractic care for [back pain](#) and increasing reliance on chiropractic as a [first-line](#) treatment option.<sup>2-3</sup>

So, what determines whether a patient undergoes spinal surgery? A recent study endeavored to answer that very question and came up with several predictive variables, perhaps the most interesting of which is the type of health care provider - namely a surgeon or a doctor of chiropractic - the back pain patient sees first. Keeney, et al.,<sup>4</sup> who note that "there is little evidence spine surgery is associated with improved population outcomes, yet surgery rates have increased dramatically since the 1990s," found that Washington state workers with an occupational back injury who visited a surgeon (orthopedic, neuro or general) first were significantly more likely to receive spine surgery within three years (42.7 percent of workers) than workers whose first visit was to a DC (1.5 percent of workers). This association held true even when controlling for injury severity and other measures.



The research team used Disability Risk Identification Study Cohort (D-RISC) data to evaluate early

predictors of lumbar spine surgery among 1,885 workers with new worker's compensation temporary total disability (four days off work) claims for back injuries. Excluded from the initial subject pool of nearly 4,500 workers with a potential qualifying claim between June 2002 and April 2004 were those who could not be contacted soon after the injury, declined to participate in the study, were ineligible for compensation in the claim's first year, had been hospitalized after the initial injury, were missing data on age, or lacked a back injury according to medical record review.

Medical bills, administrative claims, medical record review and telephone interviews were used to gather data on the potential variables predicting spine surgery, including whether workers underwent surgery (one or more lumbar spine surgeries) as covered by the claim within three years. Of the 174 workers (9.2 percent of the subject population) who had a surgery during that time frame, the vast majority were decompression procedures (78.7 percent), with 3.4 percent undergoing fusion without decompression and 17.8 percent undergoing both on the same day.

Of additional note, initial Roland-Morris Disability Questionnaire scores were "the most striking predictor of surgery" within three years, according to the authors. Workers with baseline RMDQ scores of 17 or higher (0-24 scale) were six times more likely to undergo surgery compared to workers with baseline scores of 0-8.

*Editor's note:* For more insights into the spine surgery "craze" and its socioeconomic impacts, read Dr. J.C. Smith's four-part series, "Back Surgery: Too Many, Too Costly and Too Ineffective." ([Part 4](#), which ran in the May 6, 2011 issue, contains links to the previous three parts.)

### *References*

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3. Crownfield P. "Chiropractic Before Spine Surgery for Chronic LBP." *Dynamic Chiropractic*, May 20, 2012.
4. Keeney BJ, Fulton-Kehoe D, Turner JA, et al. Early predictors of lumbar spine surgery after occupational back injury: results from a prospective study of workers in Washington state. *Spine*, Dec. 12, 2012 (epub ahead of print).

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