

New guideline finds no evidence for a popular back procedure

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As a patient safety best practice and endorsement of evidence-based medicine, the American Academy of Orthopaedic Surgeons (AAOS) Board of Directors approved and released a clinical practice guideline, which found a strong recommendation against a popular procedure called vertebroplasty as a way to treat fractures in the spine. Clinical practice guidelines are one avenue the Academy uses to ensure that patients receive high quality care.

- [Vertebroplasty](#) is a surgical procedure developed to reduce or eliminate the pain associated with compression fractures of the spinal vertebrae. This procedure involves injecting bone cement into the vertebra to stabilize fractures.
- A vertebroplasty patient is typically female, older than the age of 65, and shows signs of osteoporosis.

Orthopaedic surgeon Stephen I. Esses, MD, who practices in Houston, Texas, and chair of the workgroup that developed this guideline said the group reached their conclusion after methodically reviewing the literature, over a process of several years.

"It's very important to understand that we went into this without any preconceived notions or preferences, and we all agreed that the practice of medicine has to be based on science, and not anecdotal information," Dr. Esses stated. "When you look at the science and research to-date, there is very strong Level 1 evidence to suggest that vertebroplasty does

not provide the types of benefits that it was previously thought to provide."

Level 1 evidence refers to studies done under the strictest scientific guidelines, including blinding randomization.

The recommendation against this procedure is largely based on two randomized, controlled clinical trials that were published in the [New England Journal of Medicine](#) (NEJM). According to the work group report, the studies compared vertebroplasty and a sham procedure and report "no statistically significant difference between the two procedures in pain." The work group thoroughly reviewed the published criticisms of these two trials and found that these criticisms were not supported by existing evidence.

"Previous studies have touted the benefits of vertebroplasty, however our scientific research suggests this surgical procedure does not offer any advantages, over the placebo control," Dr Esses added.

For those patients who have had a vertebroplasty, Dr. Esses explains that knowledge changes over time and at the time they may have received this procedure, vertebroplasty was thought to alleviate spinal compression fractures, and it was perceived as beneficial.

Dr. Esses notes that surgery is not the answer for everything, and there are a variety of other treatments, such as medications or nerve blocks, which can ease the pain of spinal fractures.

"But there is not a worry that something is going to happen to you if you had this surgery already," he added. "There are no reported negative eventual side effects."

A volunteer, physician work group developed this [Clinical Practice](#)

based on a systematic review of the current scientific and clinical information and accepted approaches to treatment and/or diagnosis. The entire process included a review panel consisting of internal and external committees, public commentaries and final approval by the AAOS Board of Directors. Data review for this guideline began in the beginning of 2008, and consisted of a systematic review of the current scientific and clinical information and accepted approaches to treatment and/or diagnosis.

More patient information about spinal fractures:

- Spinal fractures are a common occurrence, and are a result of osteoporosis.
- A vertebral compression fracture causes back pain. The pain typically occurs near the break itself. Vertebral compression fractures most commonly occur near the waistline, as well as slightly above it (mid-chest) or below it (lower back).
- The pain often gets worse with standing or sitting for a period of time, and is often relieved by rest or lying down. Although the pain may move to other areas of the body (for example, into the abdomen or down the legs), this is uncommon.
- According to research from the NEJM, about 750,000 new vertebral fractures occur each year in the United States. The economic burden of treating incident osteoporotic fractures was estimated at \$17 billion in 2005.

More information: More information about back surgery is available at www.orthoinfo.org

Provided by American Academy of Orthopaedic Surgeons

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