

OPTIMAL HEALTH UNIVERSITY™

Presented by Dr. Wayne Terai

Breaking Research: MRIs Often Lead to Unnecessary Back Surgery

Magnetic resonance imaging (MRI) plays an important role in detecting several health problems. However, a growing trend in many medical clinics is to conduct an MRI scan on patients with back pain, even when serious conditions are not suspected, and before trying conservative, non-surgical management. Dr. Terai is concerned about this trend and wants all individuals with back pain to be fully informed about this situation.

Researchers speculate that the problem with the widespread use of MRI for back pain diagnosis is that the scans, which visualize soft tissue like the spinal discs and muscles, frequently identify anomalies that are not necessarily the cause of a person's back trouble. The result? A skyrocketing rate of unnecessary surgeries.



For instance, many cases of disc herniation do not cause pain. A person may indeed have back pain, and have a herniated disc, but the two are often unrelated. In these cases surgery can do far more harm than good.

One study pointed out that “evidence suggests that MRIs may often be ordered unnecessarily. ... More studies are needed to examine the appropriateness with which imaging procedures and non-invasive/minimally invasive treatments are utilized, and their effect on patient outcomes.” (*Pain Med* 2006;7:143-50.)

The Consequences of Overusing MRI for Back Pain Diagnosis

Investigators reveal that increases in the availability of MRI machines is linked to higher use of MRI for back pain diagnosis — and to elevated rates of spinal surgery.

The study looked at Medicare claims data for more than 665,000 cases of low-back pain (LBP) treated between 1998 and 2005.

The likelihood of getting an MRI increased with the number of MRI ma-

chines in the area. For example, people who lived in areas with the most scanners had a 7 percent chance of having an MRI within a month of seeing a medical doctor; those in areas with the fewest machines had a 6 percent chance. The researchers explain:

“The difference may look small, but on a broader level, the numbers add up.” They concluded that “if all study patients had lived in the areas with the fewest MRI machines, they would have had about 12,000 fewer scans performed over a year — and about 3,500 fewer surgeries.” (*Health Affairs* 2009;28:1133-40.)

Higher Costs

The boost in MRI scans for back pain patients is also associated with a jump in related costs, which is taxing the health-care system, as well as individuals' wallets. This situation has been especially well documented among Medicare beneficiaries.

For instance, according to a 2009 report in the *Journal of the American Board of Family Medicine*, “recent studies document a 629% increase in Medicare expenditures for epidural

steroid injections; a 423% increase in expenditures for opioids for back pain; a 307% increase in the number of lumbar magnetic resonance images among Medicare beneficiaries; and a 220% increase in spinal fusion surgery rates.”

The study goes on to explain that these increases have not been accompanied by population-level improvements in patient outcomes or disability rates. The researchers conclude: “We suggest a need for a better understanding of the basic science of pain mechanisms, more rigorous and independent trials of many treatments, a stronger regulatory stance toward approval and post-marketing surveillance of new drugs and devices for chronic pain, and a chronic disease model for managing chronic back pain.” (*J Am Board Fam Med* 2009;22:62-8.)

Back Surgery Often Doesn't Work

The fact that MRI screenings are leading to more back surgeries concerns Dr. Terai. Especially since spinal surgery frequently does not solve the pain, and only leads to more problems in the long run.

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Surgical intervention should be a last resort — as it involves serious health risks and comes with a high price tag. A careful weighing of the risks and costs vs. the benefits is essential before any surgical procedure. However, this careful weighing is often not performed in our current health-care environment — especially with regards to spinal surgery. Research studies have proven that many unnecessary spinal surgeries are being performed.

A study published in 2009 in the journal *Annals of the Rheumatic Diseases* compared the long-term effectiveness of surgical vs. nonsurgical treatment for patients with chronic low-back pain. The study looked at 124 patients with disc degeneration. One group of patients underwent surgery. The other group's treatment consisted of cognitive intervention and exercises. At the end of the study period, researchers found that "long-term improvement was not better after [surgery] compared with cognitive intervention and exercises." (*Ann Rheum Dis* 2009; Epub.)

A 2008 literature review also set out "to investigate the effectiveness of surgical fusion for the treatment of chronic low back pain compared to non-surgical intervention." The researchers found no significant improvement in surgical vs. nonsurgical patients. Considering that surgery is also accompanied by serious risks, the researchers concluded that "the cumulative evidence at the present time does not support routine surgical fusion for the treatment of chronic low back pain." (*Int Orthop* 2008;32:107.)

Try Chiropractic First

Unless you are in an emergency situation, schedule an appointment with our office before considering spinal surgery.

Chiropractic is an effective, non-surgical solution to low-back pain. Chiropractic care is focused on prevention — and on addressing the underlying causes of pain and disability, rather than masking symptoms with drugs or unnecessary surgical interventions. To this end, our chiropractic

office works with patients to understand the underlying cause of their pain and stop it at its source. Frequently the root cause is a condition called **vertebral subluxation**. Vertebral subluxations are areas in the spine where motion is restricted or bones (vertebrae) are slightly misaligned. The doctor corrects vertebral subluxations using gentle maneuvers called **chiropractic adjustments**.

Scientific research proves that chiropractic care is highly effective at alleviating low-back pain (LBP). For example, a literature review published in the *Journal of Manipulative and Physiological Therapeutics* examined the use of chiropractic adjustments (spinal manipulation) for LBP. The researchers found that "as much or more evidence exists for the use of spinal manipulation to reduce symptoms and improve function in patients with chronic LBP as for use in acute and subacute LBP. Use of exercise in conjunction with manipulation is likely to speed and improve outcomes as well as minimize episodic recurrence." (*J Manipulative Physiol Ther* 2008;31:659-74.)

Another study compared patients suffering with chronic low-back pain (CLBP) treated by a pain clinic to CLBP sufferers cared for by a chiropractor. After eight weeks, the chiropractic group showed greater improvements in both disability and pain than the pain clinic group. The researchers conclude: "This study suggests that chiropractic management administered in an NHS [National Health Service] setting may be effective for reducing levels of disability and perceived pain during the period of treatment for a subpopulation of patients with CLBP." (*J Altern Complement Med* 2008;14:465-73.)



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