



As a neurosurgeon who specializes in spine surgery, I frequently have patients who come to my office and inquire as to whether or not they can be treated with the amazing new therapy they saw on TV or read about on the Internet.

Sometimes they are, in fact, capable of benefiting from this new treatment, and sometimes the treatment they learned about is not applicable to their condition. Often, however, the treatment being promoted to them has little basis in science and medicine and little evidence to support its use.

Recently, numerous patients have been coming into my office with questions on whether they are a candidate for Laser Spine Surgery, and even carrying in advertisements that they have cut out of newspapers and magazines.

Given this recent attention directed to the use of lasers to treat spinal conditions, I thought it would be helpful to have some information on what this type of treatment consists of and whether it holds the answer to helping patients who are struggling with decisions about treatment options for their spinal conditions.

The use of lasers in medicine is not new. Lasers have been used in surgery to treat a variety of conditions for decades. Neurosurgeons use lasers for very specific tasks, usually involving surgery for brain tumors. In this setting, lasers have some distinct advantages. They can be used to make very precise cuts through delicate brain tissue while causing minimal disruption to the surrounding structures. Other specialists use lasers for a wide range of conditions.

Some of the more recent applications for lasers have been in the field of dermatology where they are used for hair removal, tattoo eradication, and to improve the treatment of acne.

The use of lasers for spinal surgery is not entirely new either. Percutaneous laser discectomy has been just one type of less invasive approach that has been tried for a number of years to treat a specific type of disc disorder referred to as a contained disc protrusion. While the results from this have showed some benefits and one could debate its merits, it is the more recent promotion of laser treatment for almost any spinal condition that is a relatively new phenomenon.

A review of the medical literature on this topic, however, fails to yield significant evidence to support much of these claims. There are no peer reviewed, class I (prospective, randomized, double-blinded) studies to support this expanded use of lasers in spinal surgery. In fact, there are no studies of any type in the current medical literature that supports the broad concept of Laser Spine Surgery.

This lack of evidence in the medical literature does not necessarily mean that this treatment doesn't work. It only means that there is no evidence to support that it does work.

There are some who would say I am simply casting doubt on a competing treatment for financial reasons by discouraging patients from seeking treatment elsewhere. I would respond to this by saying that I endeavor to provide my patients with the most state-of-the-art treatments possible. When a new treatment becomes available, I investigate it to see if it is capable of delivering on what it promises and if it will improve my patient's care.

There is nothing secret or magical about the use of a laser in spine surgery. A laser is simply another tool available to the surgeon to achieve his or her surgical goals. If a study were done that convincingly demonstrated that utilizing a laser were helpful, it would be easy for me to incorporate it into the scope of my practice. The addition of this technology would then lead to better outcomes for my patients and, as a result, more patients seeking my services to receive this new and improved treatment.

I have chosen not to provide this service because my decision must be based entirely on whether or not it convincingly improves the care of my patients, and as I have already pointed out, this has not been demonstrated. I'm not alone in my assessment of this surgical tool.

Of the many other spine surgeons I know in this community and throughout the country, none have advocated the routine use of a laser for their patients undergoing surgery.

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