

With Pain on the Wane, a Life Regained

By Heather Buschman, PhD | March 01, 2017

Steven Larrabee was plastering stucco 28 feet above the ground when the scaffolding he was standing on collapsed. Considering that a friend standing below said he looked like Superman when he hit the dirt, Larrabee initially felt fortunate that he had only dislocated his hand. But it still turned out to be a life-changing experience.

“That happened in November 1997,” Larrabee said. “And it marked the end of my old life and the beginning of my new life.”

That’s because the injury led to decades of chronic nerve pain that often left his hand useless. Over the years, Larrabee has tried everything to alleviate the pain, including nerve blocks and opioid pain killers, such as oxycodone and morphine. But the only thing that has truly made a difference, and helped him get his life back, is an implanted device called a spinal cord stimulator.

“Picture a small battery pack with two spaghetti-like wires attached,” said [Mark Wallace](#),



MD, chair of the Division of Pain Medicine at UC San Diego Health. “We insert those spaghetti

wires up the spine in a way that's a lot like an epidural given during childbirth. Then we create a pocket, usually in the upper buttocks, to hold the battery pack."

Spinal cord stimulators are a type of neuromodulation — in other words, they work by preventing pain signals from reaching the brain. But they aren't meant for just any kind of chronic pain, and not typically for typical musculoskeletal low back pain, despite the fact that that's where the device is implanted. These stimulators work best for people with pain after nervous system injury, like Larrabee.

"I always ask people if their pain goes away when they lie in bed," Wallace said. "If the answer is yes, then these devices are not going to help them."

According to Wallace, spinal cord stimulators can be highly effective for the right kind of patients, and help people get off opioids.

"These are the patients that we follow up monthly for a few months after the procedure to place the device, then never see again," Wallace said. "And that's a good thing."

Larrabee had his first spinal cord stimulator implanted in 2002. Since then, he's gone through several of them for various reasons, each requiring a new surgical procedure. However, this is unusual — most patients can keep the same device for life. Larrabee's most recent device replacement was partly because he needed to turn the frequency up as high as it would go to get relief, and it burned out the battery.

Fortunately, spinal cord stimulator technology has greatly improved over the years. Larrabee's latest stimulator, placed in December 2016, operates on a new and improved technology resulting in better pain control and longer battery life. He's much happier with the pain relief it provides, and it probably won't need to be replaced for about 10 years. In the meantime, Larrabee is able to do things he couldn't do before his latest stimulator, like drive, hike and work with at-risk youth.

Of course, spinal cord stimulators aren't right for everyone.

"We only implant spinal cord stimulators after a patient has tried more conservative therapies," Wallace said. "It does require surgery, and that comes with risks just like any surgery would, although it is minimally invasive and risks are low."

Larrabee doesn't sugar-coat it when he talks to other patients considering a spinal cord stimulator.

"It's a serious surgery, and you have to be awake to tell them where you feel the stimulation," he said. "Plus, the leads can move around a little. In my case, I feel them in my neck and they can feel extremely cold in winter, even in San Diego."

Nevertheless, Larrabee said he would do it again every year if he had to — life with the spinal cord stimulator is just that much better.

“I used to just hope to live to 65,” said Larrabee, who’s in his early 50s. “But now I’m planning to live to be 100!”

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**Changing
how your
brain
senses
pain**

In our last episode, we talked about the pros and cons of opioids for pain management. Here we talk to Mark Wallace, MD, about an alternative method for managing chronic pain — a type of neuromodulation called spinal cord stimulation. We also hear from a patient who has a spinal cord stimulator implanted in his back to help him manage chronic hand pain.
