# Pain Solutions Spinal Cord Stimulators

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## What are spinal cord stimulators?

Spinal cord stimulators have changed the lives of patients who suffer from persistent pain in their trunk and limbs. This treatment option helps relieve intense pain, allowing patients to enjoy life once again.

A spinal cord stimulator is an implanted electronic device used to help treat chronic pain. It consists of an electric lead (or wire) placed beside the spinal cord. The wire is connected to a generator that produces a computer-controlled electrical signal. These low voltage electrical signals prevent messages of pain from reaching the brain.

#### Where is it implanted?

The spinal cord stimulator system is usually implanted in the back. It includes a pulse generator which is powered by a battery. Signals are sent from the generator to electrodes located at the end of an insulated wire called a lead. The lead is implanted in the spinal column near the nerves that correspond to the patient's area of pain.

#### How does the device work?

The amplitude strength and rate of the electronic pulse of a spinal cord stimulator is set via radio waves from an external programmer. There are now rechargeable stimulators that may last up to 10 years.

## How will it make me feel?

Instead of pain, patients feel a tingling sensation that covers the area of the pain. You will be able to adjust the strength of the electrical stimulation from the external device.

#### What symptoms are associated with shingles?

Spinal cord stimulation is most effective when a patient is suffering from neuropathic pain. This is pain that results from damage to parts of the nervous system including nerves, spinal cord, and/or brain. The pain is usually described as electric,



shooting or burning. Examples of this type of pain include: Sciatica, back or leg pain after back surgery, neck or arm pain after cervical spine surgery, Shingles, Diabetic Neuropathy (burning pain in the legs with diabetes), phantom pain after amputation, and a pain problem called Complex Regional Pain Syndrome or RSD.

There are several conditions that would not allow you to be considered for the spinal cord stimulator. These include but are not limited to:

- Significant psychological problemsFailure of initial stimulator trial
- Blood thinners
- Active infection
- Pacemakers, cardioverter defibrillators

## How do I know if this will work?

Before a spinal cord stimulator is implanted, patients participate in a trial screening to determine if the treatment will be effective for them. One or two leads are inserted into the epidural space next to the spinal cord. You are able to turn off, on, and adjust the strength of the electrical stimulation from the external device. You should feel a tingling sensation that covers the area of your pain. The trial usually lasts three to five days. If the treatment helps lessen the pain and improves your functioning, the patient can then elect to have the system permanently implanted.

## What are the benefits of a stimulator?

Because stimulators work in the area where pain signals travel, electrical impulses can be directed to specific sites. This makes them effective at providing pain relief and decreases the need for medications. Stimulators may also help prevent surgery. Typically, patients who have success with stimulation experience a 50% or greater reduction in their pain and improve their ability to perform daily activities.

