SPINAL CORD STIMULATION

Pain Care Associates

A Division of Neuro Pain Consultants, P.C.

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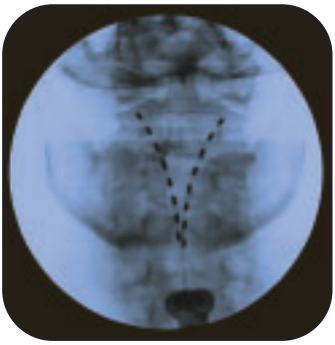
Treatment of Pain with Neurostimulation

Neurostimulation is an advanced therapy used for the treatment of certain types of chronic pain and neurological disorders.

The goal of Neurostimulation is to superimpose a pleasant pulsed stimulation (buzzing or tingling) over a patient's normal pain pattern. This confuses the brain and changes the interpretation of the pain, resulting in pain relief.

What is a Spinal Cord Stimulator?



A Spinal Cord Stimulator (SCS) is an implantable system used for neurostimulation. It consists of a **lead** (a set of electrodes used to deliver electrical stimulation), an **extension** (a wire to connect the power source to the lead), and a **generator** (a battery powered source for the stimulation). When implanted, the generator transmits electrical impulses to the positive and negative electrodes on the

ead producing the buzzing or tingling sensation that interrupts the pain message before it gets to the brain.

How is the Neurostimulator Implanted?

The implantation of a neurostimulation system is usually a **two-phase**, outpatient, minor surgical procedure.

It consists of a **trial phase** and a **permanent placement phase**. If the trial phase is successful and the patient experiences at least 50% pain relief, the permanent placement is scheduled.

The **trial** consists of the physician placing the lead into the epidural space over the nerves believed to be producing the pain. The patient receives a local anesthetic and light sedation to allow them to verbally assist the physician with proper placement of the leads. Once the leads are inserted, they are connected to an external battery. The patient then goes home and monitors his/her pain relief.

If the trial is successful, the patient is scheduled for **permanent placement** of the system. This involves placement of the lead, connecting and tunneling the extension under the skin to the implanted generator.

There are two types of permanent placement and your physician will determine which approach and which system will be best for you.

Patient Selection Criteria

This method of pain control is not for everyone. Careful patient selection is necessary with this treatment. This treatment is typically used for nerve pain described as burning, shooting, sharp or electrical-like sensations. Before the trial phase you must attend a class that reviews the procedure in depth.

Advantages

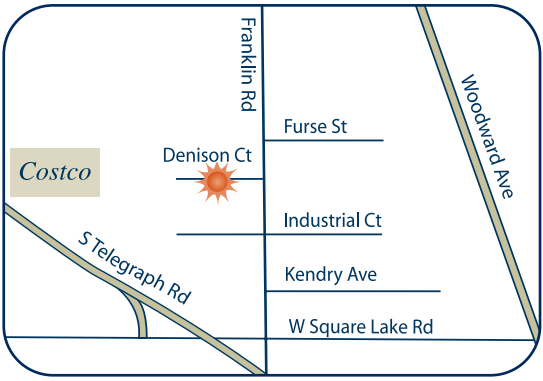
The greatest advantage is increased pain control. The patient has control over the device allowing for adjustments in stimulation as needed. The use of oral pain medications can be eliminated or reduced in most cases.

This treatment is most effective when combined with other methods to control pain which may include physical therapy, medication management, weight loss, smoking cessation and other recommended interventions.

Disadvantages

Like all mechanical devices, the neurostimulator can potentially malfunction. There is also the possibility of lead migration.

As the trial and implantation is a surgical procedure, the risks include all of the potential risks associated with surgery, including infection, nerve damage and rarely death.



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