
10

Chapter Ten

Stimulators

“In the last 27 years,
I have only referred
one patient
to have a stimulator.”

Stimulators

Your pain has been there for more than 6 months.

Chronic pain is always there. That is its definition.

Chronic pain is now treated by Pain Management.

National campaigns to treat pain adequately have resulted in the Visual analog scale (VAS) scoring system. This gives your pain a number. Now your pain can be measured. Now results of treatment can be analyzed. Now Pain Management can best decide how to help you (see Table 10-1).

Pain Diaries are encouraged (see Table 10-2).

Table 10-1. Pain Intensity Scale (enter this number in the column "Pain scale rating.").

0	1	2	3	4	5	6	7	8	9	10
No Pain										Worst Pain Imaginable

Table 10-2. Typical entry in a pain diary.

Date	Time	Pain scale rating	Medicine and dose	Other pain relief methods	Side effects from pain medicine
June 6 (example)	8 am	6	Morphine 30 mg – every 4 hours	massage	constipation

Pain Management is given usually by Anesthesiologists and Psychiatrists. They are skilled at prescribing medicines, counseling patients, and giving nerve blocks.

Faces with smiles to frowns are everywhere, as they should be. Chronic pain, is, well, chronic, and difficult to live with (see Figure 10-1).



Figure 10-1. Chronic pain chart used by patients to indicate their level of discomfort.

Throughout this book you have seen the now classic drug sequence:
Non-steroidal Anti-Inflammatory Medication
Narcotic Pain Medication: Short and Long Acting
Neuropathic Pain Medication
Topical medications and patches
Narcotic Pain Patches
Pain Lollipops

Gate Keepers

In the 1970's Melzak and Wall, from McGill University in Canada, introduced and popularized the Gate Control Theory of Pain.

This theory is like the old “the squeaky wheel gets the oil.”

Our brain pays attention to that part of our body yelling the loudest.

If you have a headache, and someone steps on your toe, you feel your toe hurting and not your head.

If your brain is receiving signals of pain along certain nerve fiber pathways, and you can stimulate other pathways to send more or louder information to the brain, then the brain will pay attention to that new group of nerve impulses, and not pay attention to the pain impulses.

So the theory goes.

Stimulators are the Last Resort

You still have pain. You are on all the medications your doctors and your body permit. You have some relief from your nerve blocks. What next?

Pain Management will likely suggest you have a “stimulator” placed into your body to send messages to your brain along the nerve pathways. The “stimulator” is implantable into either your spinal cord or on to a nerve outside the spinal cord, a peripheral nerve. The computer stimulator is connected by a wire to either the spinal cord or the peripheral nerve.

A Pain in the Ass

So you have decided to have a spinal cord stimulator placed to relieve your pain.

“Where would you like the stimulator placed in your body?”

“Well, I haven’t thought about it much before. Where would you suggest?”

“How about in your butt?”

“Where did you say?”

“Well, not your rectum, certainly. Rather, in your buttock.”

“Oh...certainly seems like a strange concept!”



Figure 10-2. Left: Site of chronic pain (arrow). Neuroma of ilioinguinal nerve, in the scar, after gynecologic surgery. Right: Scar used to implant the spinal cord stimulator (arrow). See also Figure 10-3.

Complications from Stimulators

The most common complication is they simply do not work.

Well, their electrical function works, except when the battery has to be replaced.

Sadly, very few people in chronic pain realize a lot of pain relief from stimulators. It is not clear why, but if someone were to ask me, I would say:

“The pain generating signal itself must be removed.”

DELLON INSTITUTES FOR PERIPHERAL NERVE SURGERY® DO THAT!

When pain relief is not what is hoped for from the first spinal cord location of the stimulator, the next step is to operate again, and relocate the stimulator along the spinal cord to a (hopefully) better spot.

This can be repeated a number of times. Sometimes a stimulator with only 6 points of stimulating the spinal cord. Pain Management may suggest a newer, better one, with 12 leads. Another operation.

Then there is the risk of the pocket of the stimulator becoming infected (read about James in Chapter 4, and see, Figure 4-11, the open wound created when the stimulator became infected).

Then there is the risk of infection spreading along the wire leading from the stimulator into the tissues around the spinal cord.

Then there is the risk of leakage of spinal fluid, and headaches.

Then there is the risk of infection of the spinal cord itself.

And well, if the stimulator does not work, how about implanting a morphine pump directly into the spinal cord.

Did you ask what the overall cost of the spinal cord stimulator is to the insurance company? “\$50,000” all costs considered, more or less. Well worth it, I suppose, if the pain would go away. And the operations stop.

By the way, there is a cost to remove it, if it is really a pain in the ass.



Figure 10-3. A real pain in the butt. Note scars throughout the lower back and buttock related to placement of spinal cord stimulator for treatment of groin pain. This is what happened to Janis before she learned about the Dellon Institutes for Peripheral Nerve Surgery®, where her pain was finally relieved by removing the painful nerve injured during her cardiac catheterization (see Figure 4-13).

Peripheral Nerve Stimulators

Your pain may be in an arm or leg.

Let us say that no one has been able to figure out why you have your pain in the arm or leg, but your Pain Management doctor can give you a few hours of relief if he puts local anesthesia, a nerve block, around a certain nerve. Well, it seems likely that the pain message is traveling to your brain along that nerve. Many Pain Management doctors would then refer you to the Dellon Institutes for Peripheral Nerve Surgery to remove this nerve.

At the Dellon Institutes for Peripheral Nerve Surgery® our approach is to correct the problem with that nerve. This means either a neuroma or a nerve compression can be identified, and a PAIN SOLUTION designed to help you. Most often the pain stimulator can be removed.

Many Pain Management doctors, however, unaware that PAIN SOLUTIONS are available, will suggest a peripheral nerve stimulator.

In surgery, the Pain Management doctor will find the peripheral nerve, place the stimulating electrodes around the nerve with sutures to hold it in place, and then run a wire from that nerve to the miniaturized computer that must be implanted into your body. Where will they implant the stimulator? Often into your chest, near your breast, or into a pocket created in the lower abdominal wall.

Peripheral Nerve Stimulators have the same list of complications and problems as Spinal Cord stimulators.

They have one other unique complication. *They can injure the peripheral nerve to which they are attached.* The electrical stimulation can make muscles contract uncontrollably, contorting the hand or foot into bizarre appearances. The nerve can become compressed by the stimulator causing chronic nerve compression, with its own group of pains.



Figure 10-4. A woman with facial pain after a cosmetic surgery procedure. After her facelift, her right upper lip and cheek became painful, burning, and numb (note shaded area of symptoms). After 3 years of seeking help, and living with pain, a Neurosurgeon placed a peripheral nerve stimulator into her face. The electrode (arrow) was placed around the region of the infra-orbital nerve, the nerve that exists below the cheek bone. The wire was passed over and behind the ear, down the neck, over the collar bone, and connected to the miniaturized computer that was implanted into her chest, above her breast. At surgery, the approach designed for this woman, was to remove the nerve from scar tissue through an incision under her upper lip. The stimulator electrode was removed as was the stimulator itself, noted on her chest. The connecting wire is easily seen. (Learn more about Brenda in Chapter 9 on Facial Pain.)

A Shot in the Dark

In the last 27 years, I have only referred one patient to have a spinal cord stimulator placed.

Rhonda (not her real name) was an off-duty Baltimore policewoman who shot herself in the left leg, accidentally, with her own pistol. It was night. She was cleaning her pistol at home. There was a shot!

The bullet went through her leg, just below the knee. The bones were not injured. She had immediate pain in the top and bottom of the left foot. After her emergency care, numbness in her foot continued, and the pain nerve went away.

I operated on Rhonda three times over four years. Sensation and motor function came back to the foot. But she still had chronic pain. Her Pain Management doctor put in a peripheral nerve stimulator on her sciatic nerve, in the back of her left thigh (see Figure 10-5).

The stimulator did not help her. She remains in chronic pain, controlled with medication by Pain Management.

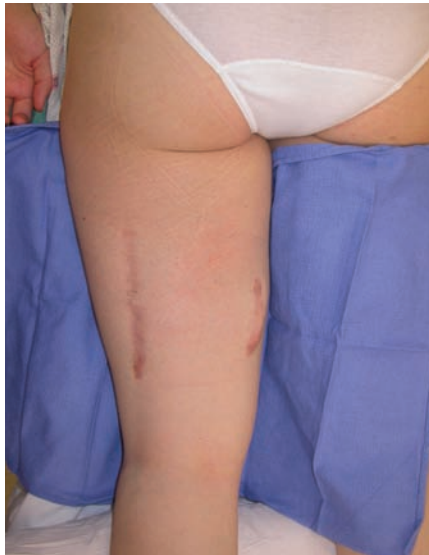


Figure 10-5. Peripheral Nerve Stimulator placed over Rhonda's sciatic nerve.

Just Say No!

In *Pain Solutions*, I try to show you that there is no easy or simple solution to treating your pain.

I suggest to you that considering surgical approaches that I have developed over the past 27 years have a published success record of identifying the source of your pain as a peripheral nerve, of choosing one of our proven procedures or designing a unique procedure for your pain relief.

It is preferable to try surgery on the peripheral nerve itself before starting down the pathway of peripheral nerve or spinal cord stimulators.

Pain Solutions Summary

Living with chronic pain can lead to desperation. Desperation can lead to desperate attempts at relief. Placing a spinal cord stimulator is a final desperate attempt. Placing a peripheral nerve stimulator is a final desperate attempt. It may be true that you will need this type of desperate treatment.

Before you place a nerve stimulator in your body to relieve pain, please consider that an injured peripheral nerve is likely to be the source of your pain.

There is hope for you. Let us try to identify the peripheral nerve that is the source of your pain.

Visit Dellon.com or call +1 877-DELLON-1 (+1 877-335-5661).

