

## INFORMATION ABOUT YOUR PROCEDURE

### **SPINAL CORD STIMULATION TRIAL**

#### **How we do the procedure**

**Spinal cord stimulation (SCS) or neuromodulation** is a new, high tech way of treating pain. Persistent pain after back or neck surgery, pain from reflex sympathetic dystrophy (RSD or now complex regional pain syndrome I), or unstable and inoperable angina (heart pain) are treatable by this approach. Of course, all more conservative options need to be tried before this expensive option is considered. A **spinal cord stimulation trial** is performed by placing a small electrode array about the size of IV tubing into the epidural space under x-ray guidance where it can be used to stimulate directly behind the spinal cord pain centers. It creates an electromagnetic field that can block the sympathetic nerves and cause chemical changes in the pain centers that block pain perception. Thus, it works quite differently from a TENS unit (transcutaneous electrical nerve stimulator) which only drowns out the pain by adding background noise stimulation (like hitting your thumb to make your headache better). What you will feel with the SCS is a gentle tingling in the area of your pain. If we can match the stimulation pattern to your pain areas we are likely to be successful in substantially reducing your pain. This procedure is done at a hospital or outpatient surgerycenter, depending on your insurance. You will stay overnight and leave early the next morning (23-hour stay).

#### **What to expect**

We will start an intravenous line to give you medication to relax you. We will inject a local anesthetic into the skin to make you more comfortable during the procedure. Using the needle that we use to pass the electrode. When the electrode is in position, we will try different test stimulations and ask you where you feel it. When we are able to cover most of your pain areas with the stimulation, we will suture the electrode into place and teach you how to use the stimulator control box. The outpatient trial will last 3-7 days. During this time, your job is to see how much relief you can get and how much increased activity you can tolerate while using the stimulator. If the stimulator trial provides you with at least 50-60% overall improvement in your pain, we will discuss the different stimulator systems that can be implanted. Implantation involves minor same day surgery, typically two small incisions, one in the back (upper or lower, depending on whether your pain is in your arm or leg) to place the electrode(s) and one on the abdomen to place the receiver or generator.

#### **Risks**

The risks include bleeding, infection and a reaction to any of the medications used for the procedure. We use sterile technique to avoid infections. If you are taking a "blood thinner" (anticoagulant), we will give you special instructions before the procedure to avoid excess bleeding.

#### **Safety Precautions**

Since your ability to drive may be impaired for a few hours, we ask that you have someone drive you home.