A Spinal Cord Stimulator is a small, rechargeable implantable generator that produces tiny electrical impulses. These impulses interfere with the spinal transmission of certain pain signals and thereby provide relief from some pain.

A Spinal Cord Stimulator (SCS) does not block all signals, and thus, leaves the ability to feel certain pain signals that are protective. An example of protective pain: stepping on a nail is felt (even with a SCS on), thus alerting the patient to the event. Likewise, stepping on a hot coal in bare feet is felt (even with a SCS on), thus alerting the patient to the event.

Certain types of pain are poorly treated with SCS and these include arthritic joint pains, cancer pain, and muscular pains.

SCS is a treatment typically recommended when all other means of treating or eliminating the pain have either been non effective, contraindicated, or have side effects that are interfering with quality of life.

A psychological assessment of the patient is always obtained before any trial implantation is made. This is to assure that there are no unresolved issues that would interfere with long term benefit from such a device, such as untreated severe depression, secondary pain, etc.

Typically, patients who are considered possible candidates for this therapy meet with one of the Pain Center’s physicians and discuss the procedure and whether or not it is something that can be recommended for that patient’s particular pain problem.

If they appear to be a possible candidate, the patient is given material and information to take home, read, and absorb. Once having digested the information provided, if the patient wishes to pursue SCS implantation further, an appointment is made for them to come back to the Pain Management Center and meet with the physician to discuss a trial implantation.

On the day of the procedure, the patient will arrive at the Pain Management Center one hour before their appointment time, having had nothing to eat or drink for at least 4 hours. Once at the Pain Center, the physician will meet with the patient and address any last minute questions. An IV is placed to allow for an antibiotic to be given.

Once in the procedure room, the patient will be asked to lie on their stomach on a special padded bed. The patient’s back will be prepared with an antiseptic solution and surgical drapes will be applied. The skin will be anesthetized with a local anesthetic using a very thin needle.

A special x-ray device (fluoroscopy) will then be used to assist in the placement of another needle into the epidural space. The epidural space is an area that is epi (around) the dura (or covering over the spinal fluid and spinal nerves). This space typically contains just fat and blood vessels.

Once the needle is located in the epidural space, a thin wire electrode or “lead” containing four or eight electrode contacts will be placed under fluoroscopy vision into the epidural space near the area of the spinal cord where the patient’s pain can then – hopefully – be blocked. With the “lead” (electrode) in place, a small electric current will be placed through it and the patient will be asked to relate where they feel the stimulation – typically felt as a gentle buzzing or tingling. In some cases, a second lead is used to allow coverage of more areas or of the middle back region.

During a trial, attempts are made to “overlap” this feeling of stimulation to the area(s) where the patient typically feels their pain. Once this is done, the needle is removed and the “lead” (electrode) is then taped to the skin of the patient’s back.

The patient is instructed in the use of the trial stimulator and the journal used to record experiences and benefits of this temporary stimulator.

Over the next 5 to10 days, efforts should be made to live as “normally” as possible. However, while the electrodes are in, patient must avoid:

- bending or twisting
- raising arms above the head
- stretching body at the waist
- lifting items more than five (5) pounds
• sitting for long periods of time
• climbing
• pulling or jiggling the leads
• shower or bathing (sponge bathe only)
• driving

After 5 to 10 days, the patient is seen and the temporary SCS is removed. Typically, the most “painful” thing about this is the removal of the tape that holds the electrode on the skin. If your stimulator trial is successful, you may be a candidate for implantation of a permanent system.

The Pain Management Center is staffed by six anesthesiologists (with interest and training in pain management), a family physician, and two nurse practitioners who specialize in pain management. They are supported by a nursing staff that collectively has 342 years of nursing experience. Joseph T. Hyatt, MD, is a physician with the Pain Management Center, Elliot Hospital, 663-6730.