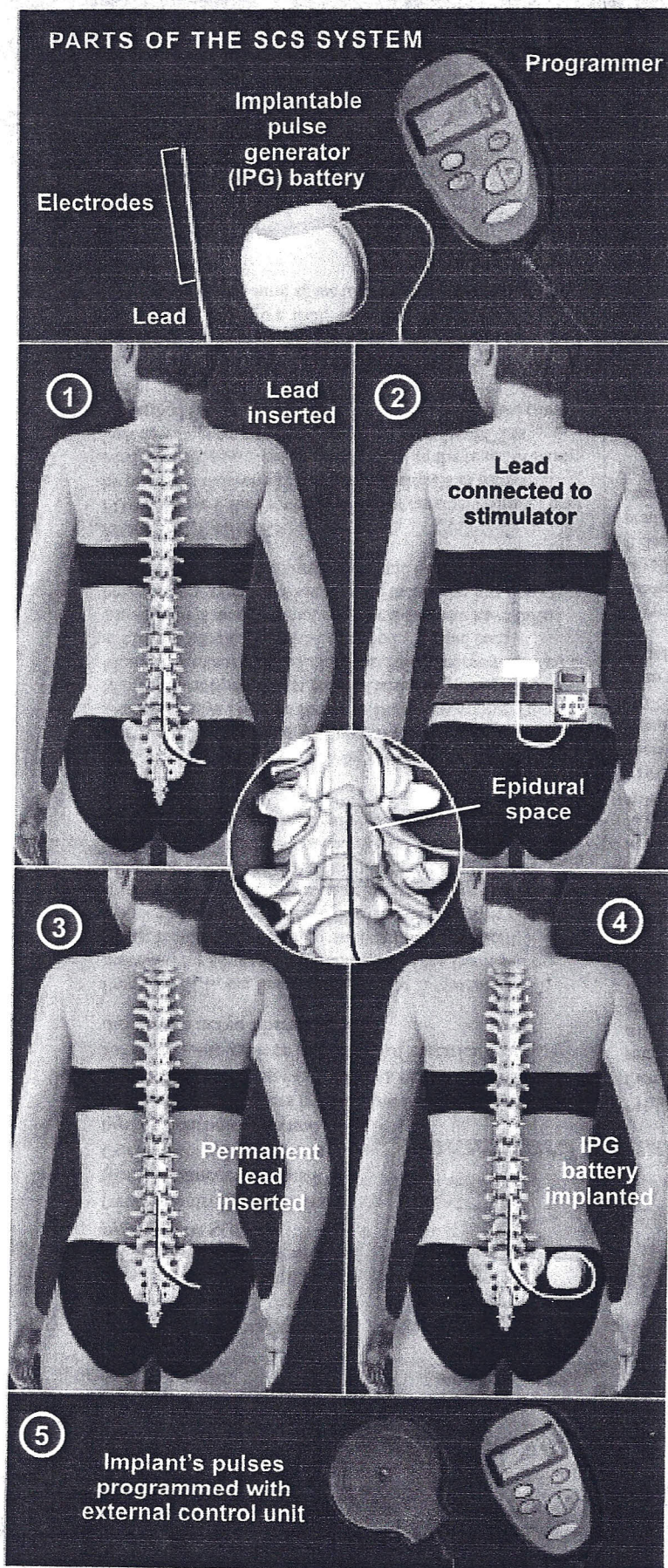


SPINAL CORD STIMULATOR IMPLANT



Overview

Spinal cord stimulation (also called SCS) uses electrical impulses to relieve chronic pain of the back, arms and legs. It is believed that electrical pulses prevent pain signals from being received by the brain. SCS candidates include people who suffer from neuropathic pain and for whom conservative treatments have failed.

Trial Implantation

The injection site is anesthetized. One or more insulated wire leads are inserted through an epidural needle or through a small incision into the space surrounding the spinal cord, called the epidural space. Electrodes at the end of the lead produce electrical pulses that stimulate the nerves, blocking pain signals. The patient gives feedback to help the physician determine where to place the stimulators to best block the patient's pain. The lead is connected to an external trial stimulator, which will be used for approximately one week to determine if SCS will help the patient. The trial typically lasts around seven days. If the patient and physician determine that the amount of pain relief is acceptable, the system may be permanently implanted. At the end of the trial implantation, the lead is removed.

Permanent Implantation

The permanent implantation may be performed while the patient is under sedation or general anesthesia. First, one or more permanent leads are inserted through an epidural needle or small incision into the predetermined location in the epidural space.

Battery Implantation

Next, a small incision is created, and the implantable pulse generator (IPG) battery is positioned beneath the skin. It is most often implanted in the buttocks or abdomen. The lead is then connected to the IPG battery.

End of Procedure

The implant's electrical pulses are programmed with an external control unit. The patient can use the external control unit to turn the system on or off and adjust the stimulation power level and switch between different programs.

After SCS Implantation

After surgery, patients may experience mild discomfort and swelling at the incision sites for several days.