

Pain and Spasticity

Spinal Stimulator

Spinal stimulators are used for patients with chronic, intractable pain. A battery powered electric pulse generator is implanted under the skin similar to a pacemaker. The pulse generator is connected to stimulation leads that go in the epidural space over the thoracic or cervical spinal cord. Mild electric stimulation to the spinal cord induces pain relief in parts of the body below the level of the leads.

Morphine Pump

Morphine (or fentanyl or hydromorphone) pumps are also used for with chronic, intractable pain. A pump is implanted under the skin in a subcutaneous pocket, anchored to the abdominal wall fascia. A catheter is connected to the pump and is tunneled subcutaneously to the lumbar region where it is placed into the lumbar subarachnoid space. The pump provides continuous delivery of drug into the cerebrospinal fluid. Drug delivery to the CSF is 100 times more potent than intravenous delivery, and is associated with fewer side effects.

Baclofen Pump

Baclofen is a powerful muscle relaxant. It is used in cases of severe increase of muscle tone, called spasticity, which can occur following spinal cord injury or stroke. The pump and catheter are placed in the same manner as a morphine pump.