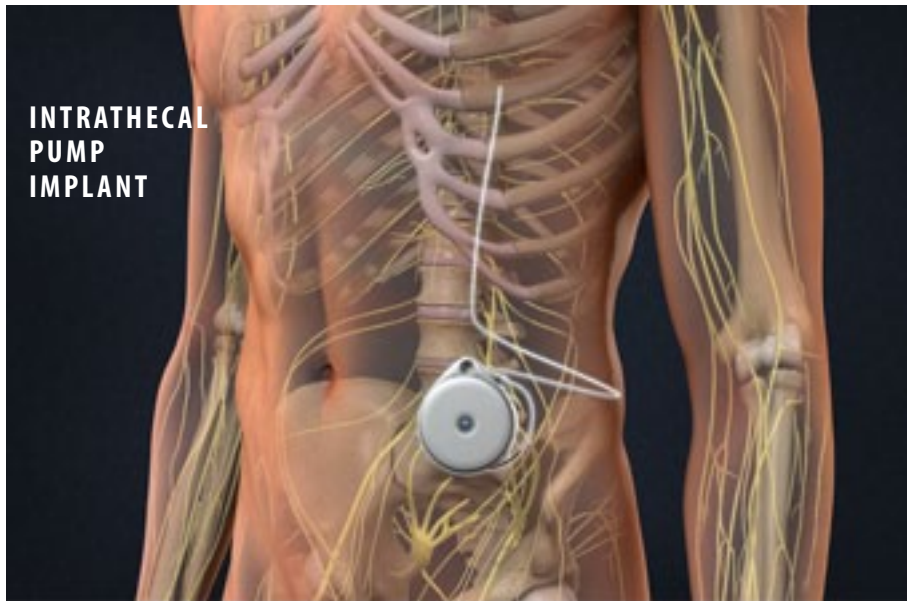


## Intrathecal Pump Implant

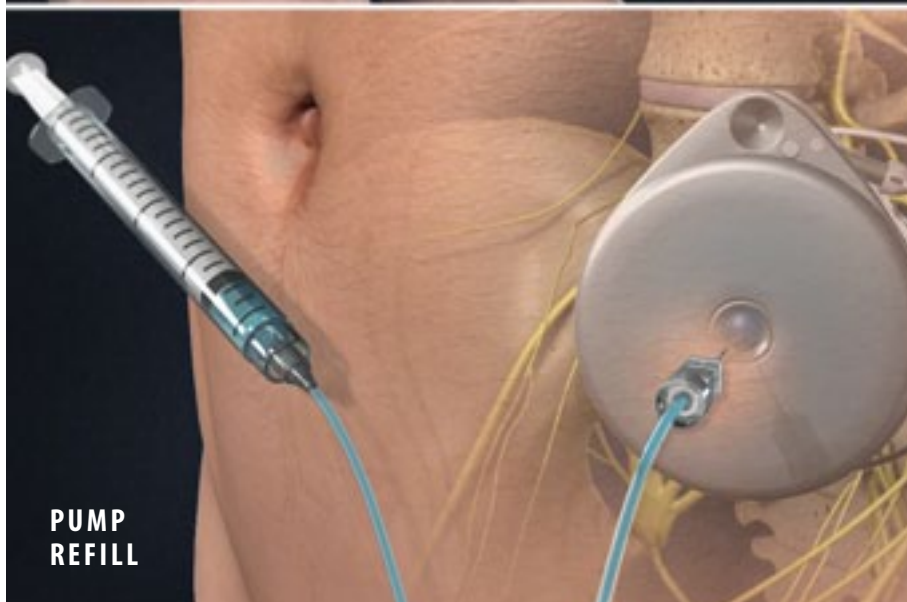
### INTRATHECAL PUMP IMPLANT



### EXTERNAL PROGRAMMING



### PUMP REFILL



#### Overview

An intrathecal pump relieves chronic pain. It uses small amounts of medicine applied directly to the intrathecal space (the area surrounding the spinal cord) to prevent pain signals from being perceived by the brain. Pump candidates include people for whom conservative treatments have failed and surgery is not likely to help.

#### Trial Procedure

After local anesthetic is administered, a catheter is inserted through a needle or small incision into the intrathecal space. This catheter is connected to a temporary pump. It will be used for several days to determine if the system will help the patient. If pain decreases during the trial period, a permanent system may be implanted.

#### Permanent Implantation

The second procedure is usually performed while the patient is under general anesthesia. The temporary catheter is removed and, through a needle or incision, a permanent catheter is implanted.

#### Pump Implantation

The pump is implanted under the skin, usually in the abdomen. The catheter is then connected to the pump. The pump's battery may last three to five years, after which a new pump is implanted.

#### End of Procedure

The amount of medication dispensed by the pump is programmed with an external unit. Regular visits to the doctor are needed to refill the pump. After surgery, patients may experience mild discomfort and swelling at the incision sites for several days. Over time, the catheter may move or become damaged from strenuous activity and require repositioning or replacement.