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Medtronic METRx™ MicroDiscectomy System Fact Sheet

Fact Sheet
METRx™ MicroDiscectomy System
For Discectomies

The Results

The unique, muscle-splitting METRx™ MicroDiscectomy System provides access to the spine with less tissue trauma than associated with traditional surgeries to relieve pressure on nerves. Posterior approach procedures with this system offer significant potential benefits.

- Shorter hospital stays - outpatient surgery vs. two to three days with open surgery
- Smaller scars - one inch vs. up to four inches
- Quicker return to work and normal activities
- Avoidance of general anesthetic
- Less post-operative pain - no muscle cutting or stripping

Discectomy

A discectomy removes a disc herniation (bulging disc) to relieve pressure on an adjoining nerve.

The Traditional Discectomy

A traditional open discectomy requires a large (up to four inches) incision down the middle of the back with extensive stripping of muscle from the spine to get to the affected disc. Though using one-inch skin incisions, newer microsurgery discectomies still involve cutting muscle and scraping it from the spine to access the disc. The muscle damage of these surgeries contributes to most post-operative pain and longer, more difficult rehabilitation periods.

The METRx MicroDiscectomy System

The METRx MicroDiscectomy System is composed of bayoneted surgical tools with various-sized metal tubes used to create and maintain openings to spinal elements.
Fundamental to this system are specially designed metal tubes, called dilators, which progressively increase in diameter size. These dilators are inserted sequentially-smaller to larger-through the muscle to gradually separate, or split, and open the muscle to create an opening large enough for surgical tools to be used. The system's retractor tubes maintain the opening while the surgeon uses specially designed surgical tools to reach and remove spinal elements that are causing pain.

The Minimally Invasive Approach with the METRx MicroDiscectomy System

Surgeons are able to precisely locate, see and remove herniated discs in the spine through tunnels created by tubes that split back muscle, much like a sewing needle splits the weave of fabric, along natural divisions. No muscle fiber is cut, only separated. This unique muscle-splitting approach allows surgeons to access the spine with a posterior approach without cutting or removing muscle from the spine.

How It Works

• Using a special "live-action" x-ray called a fluoroscope to visualize the spine, the surgeon precisely locates the herniated disc.
• Guided by the fluoroscope, a small needle is inserted through the skin and muscle to the affected area.
• The needle is withdrawn, a ½-inch skin incision is made, and dilators are inserted, one around the other, to gradually "split the weave" of the muscle until a ¾-inch tunnel to the disc is created.
• The retractor holds the tunnel open to allow for the microscope (or endoscope), surgical tools and instruments to be inserted.
• While viewing the herniated disc through the microscope, the surgeon uses special instruments to remove the herniated disc.
• Once the procedure is completed, the tube is withdrawn, and the separated muscle fibers flow back together.
• A small adhesive bandage is applied to cover the incision.

Procedure Indications*

Disc herniation is the most common condition indicated for surgery with the METRx System. In addition, the METRx System can be used for a laminotomy (partial removal of the vertebra’s thin bony plate), medial facetectomy (removal of a facet joint), foraminotomy (enlarging of a foramina to allow nerve clearance) and nerve root retraction.

Who can Benefit

• Lumbar discectomy is the #1 procedure performed on the spine in the United States each year.
• About 250,000 Americans have surgery to relieve herniated discs annually.
• 70 percent to 80 percent of patients requiring herniated disc surgery are candidates
Clinical Experience

The METRx System represents a new area in spine surgery, and the results of surgeries performed with this system have yet to be fully studied. However, in a preliminary study of 26 patients who had a lumbar discectomy with the METRx System, all reported very high levels of satisfaction with the procedure. In addition, patients in one study stayed in the hospital for an average of 12.1 hours, with a range of two hours to 48 hours. This compares favorably to the two to four days needed for open procedures.

In terms of relief of symptoms related to unpinching the nerve root, surgical outcomes using the METRx System are comparable to open procedures. However, since the METRx System allows the surgeon to unpinch the root without cutting or stripping muscle, patients are offered several advantages in terms of post-operative pain, recovery period, rehabilitation and cosmetic results.

Resources

www.back.com
www.neckreference.com
www.medtronicsofamordanek.com

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