**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 for this procedure.

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.medtronicsofamordonek.com

*Notice to healthcare professionals: See package insert for labeling limitations and other important information prior to use.
Important Information

METRx™ MicroDiscectomy System

Device Function:
Some supplies require the use of instruments which incorporate a measuring function. Ensure that there are no
ways that all superficially visible features of these devices. Some instruments are made of aluminum, and
some with handles made of stainless steel. Polishing compounds can also be used on the stainless steel
flanks of these instruments. None of these instruments should be sterilized.

Intended Use:
This instrument is intended for use in surgical procedures.

Description:
Unless otherwise stated, instruments are made out of a variety of materials currently used in dental,
medical, or surgical applications. Most instruments are made of stainless steel, with some materials
machined, ground, polished, and/or finished. These may include stainless steel, high-grade tool steel,
and aluminum. Some instruments may be made of plastic or other materials.

Warranty:
The methods of use of instruments described herein are not intended to replace or modify the manufacturer's
recommendations. Therefore, the user must be familiar with these devices to ensure proper use.

Purchasing: A回顾

Breakage, chipping, or cracking of instruments, such as sharp edges, may cause injury to the patient
or operator. Improper sterilization, handling, or care of instruments can result in damage to the instrument
or to the patient. Proper sterilization and storage are critical to the success of the procedure and the safety of the patient.

Perioperative Care:

care is critical to the success of the procedure and the safety of the patient.

Over-hydration, scratching, or chipping of the patient's instruments with any substance should be avoided to reduce
the risk of nosocomial transmission. Any substance should be rinsed, air-dried, or sterilized before being returned to
the sterilizer.

Extra care should be taken to ensure that this instrument is not used in any surgical procedures.

Other Complications:

Other Provisions:
1. Excessive force when using dental or medical instruments can cause damage to the tissues or to the instruments.
2. Do not use instruments for purposes for which they were not intended.
3. Protect all surgical equipment from exposure to extremes of heat, cold, or humidity.
4. Proper sterilization and storage of all surgical equipment is critical to the success of the procedure and the safety of the patient.

For use in this product and instruments supplied by the United States, some non-U.S. Health Care Authorities recommend sterilization of all surgical instruments at the time of use to maintain the sterility of the product.

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