About Back Pain

An estimated ten million adults suffer from chronic back pain annually, making back pain the number one cause of healthcare expenditures in the U.S., with a direct cost of more than $50 billion annually for diagnosis, treatment and rehabilitation.

The majority of patients suffer spine problems related to degenerative conditions. These degenerative conditions can result in instability and intrusion into the spinal cord and surrounding nerves, causing back pain and/or radiating pain in the arms or legs.

Non-surgical Treatments for Back Pain

When a patient is experiencing back pain, diet and exercise are often the initial treatment choices.

- Bed-rest, medication, physical therapy, chiropractic care, and steroid injections are used if a patient does not see any results from a change in their lifestyle.
- Medication only provides temporary relief from extreme back pain, as back pain typically returns once drug therapy is stopped.
- The majority of back patients show improvement with these treatments.

When non-surgical treatments are not effective, some patients require spine surgery.

- It is estimated that over one million patients undergo spine surgery each year in the U.S.
- Traditional spine surgery requires large incisions, which increases recovery time and lengthens return to normal activity.

NuVasive® Creative Spine Technology® – The Surgical Solution

NuVasive has developed a portfolio of products designed to allow surgeons to use traditional surgical techniques with a minimally invasive approach. By reducing the amount of soft tissue disruption without requiring surgeons to dramatically alter their procedures, clinical outcomes are comparable to traditional open procedures, while patient recovery times are significantly reduced.

- The NuVasive innovative technologies enable surgeons to perform a variety of complicated spine procedures through a minimally disruptive procedural approach.
- Because NuVasive’s products cause less tissue disruption during the surgical approach, patients typically have shorter hospital stays and quicker recovery times. Patients are often walking hours after surgery.
- The NuVasive proprietary technology includes the surgical instruments that provide access to the surgical site, while other instruments pass through it. The MaXcess® retractor utilizes a split-blade design that allows maximum access and visualization to the spine, while minimizing the damage to surrounding tissue. Other unique instrumentation includes the NeuroVision™ M5™ nerve monitoring system which provides an added level of nerve safety during minimally disruptive spine surgery. NuVasive also offers advanced fixation products to stabilize the spine during spine fusion.
NuVasive® Creative Spine Technology® – The Surgical Solution (cont.)

- NuVasive has developed the XLIF® (eXtreme Lateral Interbody Fusion) surgical approach. This minimally invasive procedure approaches the spine from the side rather than from the front or back. This approach allows for less painful postoperative recovery as less muscle tissue is disrupted during surgery.

- NuVasive developed the ILIF™ procedure as a new prescription for Lumbar Spinal Stenosis (LSS). The ILIF procedure was developed to overcome the potential shortcomings of standard LSS treatments using a minimally disruptive surgical technique. ILIF benefits include reduced operative time, reduced blood loss, minimal scarring, reduced post-operative pain, shorter hospital stay, and quicker return to normal activity.

- NuVasive developed MAS™ TLIF as an alternative to a traditional TLIF (Transforaminal Lumbar Interbody Fusion), where the muscle is dissected from the middle of the back out to one side, sparing the trauma to the opposite side of the back. In a MAS TLIF, rather than starting from the center and spreading the muscles outward to one side, the approach starts at an angle and bluntly splits the muscle only in that path. The advantages are the same as traditional TLIF, but with the added benefit of less muscle disruption and therefore less postoperative pain and quicker recovery.

- Anterior Cervical Discectomy and Fusion (ACDF) is the procedure to remove and fuse two or more cervical vertebrae in the neck. The intervertebral disc is accessed from an incision in the front of the neck. The 4 main stages to this procedure include: 1) exposure and removal of the problematic disc, 2) decompression of nerves from soft and/or bony tissue, 3) placement of an interbody graft, and 4) placement of an anterior cervical plate for stability, acting as an “internal brace” until the fusion takes place.

- Posterior Cervical Fusion involves decompression and fusion in an approach through the back of the neck. The 2 main stages to this procedure include: 1) decompression of nerves from soft and/or bony tissue, and 2) stabilization using pedicle screws and rods to act as an “internal brace” until the fusion takes place.

- In a total cervical disc replacement, a device is placed in the intervertebral space to replace the natural disc that has degenerated. The device acts to separate, stabilize, and align the vertebral bodies while preserving motion. *Investigational use only in the U.S.*