Options for Spine Treatments

Back Surgery: When is it Appropriate?

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Most cases of neck pain or back pain, whether acute or chronic, can be successfully treated without surgery. Non-surgical treatment of back pain may include a combination of the following: chiropractic care, physical therapy, gentle massage, activity modification and anti-inflammatory medication. These approaches do not help all types of back pain. Back surgery is required in a small percentage of cases. The most common reason for surgery is to remove pressure from a herniated "slipped disk" when it compromises a neighboring nerve and contributes to extremity pain and weakness that has not responded to more conservative care. In some cases surgery may be necessary to remove the excessive bone to make room for the spinal cord and nerves within the spine.

When Can Surgery Help?

The mere presence of pain does not mean you need surgery. For some individuals, surgery can lead to increased pain. In most situations a back operation will not be considered unless conservative measures have failed or the condition represents a medical emergency. Even if conservative treatment fails this does not mean that back surgery is inevitable. Surgery is generally reserved for conditions where there are no other options or there is a potential for serious deterioration.

Your attending physician may refer you to a spine surgeon or recommend back surgery if you have neck or back pain accompanied by signs and/or symptoms of nerve damage. These signs and symptoms include:

- Pain that radiates into the arms or legs
- Numbness, weakness or tingling in the arms and legs
- Loss of bladder or bowel control

Back problems which may be helped by back (spine) surgery include herniated disc, back pain secondary to degeneration, spinal stenosis, fractures, spinal deformities, infections and tumors and spinal instability.

When is Surgical Fusion Necessary?

Lumbar spine surgery with fusion is performed to reduce mechanical induced low back pain. This type of surgery is rarely indicated unless there is definitive instability of the spine. Instability is defined as excessive vertebral movement or slippage between adjacent segments. Pain resulting from instability will intensify following physical activity and is often associated with

degenerative changes in the discs (such as degenerative disc disease). Slippage of vertebrae is referred to as spondylolisthesis. The confirmation of mechanically induced pain from slippage of vertebral segments is a strong indicator of the need for spinal fusion.

The most common reason for considering low back surgery is low back pain that lasts for more than six months.

The indications for fusing the low back include the following:

- Mechanical back pain (usually attributed to disc degeneration)
- Spinal stenosis (where there is an associated deformity)
- Fractures
- Tumors
- Scoliosis (deformity)

Sometimes it is necessary to perform a spinal fusion on one or more vertebral levels during a discectomy procedure in order to prevent post-operative mechanical instability. This can occur secondary to removal of too much supportive tissue during surgery.

The Purpose of Back Surgery

The primary purpose of spine surgery is to correct a structural lesion in individuals who fail to show adequate improvement with conservative or non-surgical intervention. Surgery is done in order to alter structural relationships within the spine to reduce pain and/or to protect vital structures such as blood vessels and nerves. Surgery is also performed to remove tissues that should not be present such as tumor. There are very few reasons to undergo exploratory back surgery with the widespread availability of advanced imaging technology and techniques.

Spine surgeries are customarily performed surgeons trained in orthopedic spine surgery or neurosurgery. The field of spine surgery has become increasingly specialized due to advances in surgical approaches and materials utilized during surgery. This increasing level of specialization in spine surgery contributes to enhancement of surgical techniques, greater application of minimally invasive procedures and generally better post-operative outcome.