

MISS Fusion and Decompression Procedure

If you ask a bunch of people if they've ever faced the problem of back pain in their life, it's normal that many of them answer positively. That is how common back pain is in today's life that almost every person is likely to experience it at some point in their life. The current generation is the generation of computers and as a result most people spend a lot of their time sitting, which in turn results in numerous issues, and back problems are the first among them. This is precisely among one of the biggest reasons for the rise of physiotherapy as a successful career. Today we'll be talking about one of the best and advanced methods of resolving spine related issues, that is, minimally invasive spine surgery (MISS). Read along to find out more.

WHAT IS MISS (Minimally Invasive Spine Surgery)?

When it comes to back problems, the cause can be related to either one of the following roots: back muscles or spine. While there can be several possible causes for a very normal back pain, a general physician may first prescribe very simple measures for relief like bed rest, heat packs, ice packs, support belts etc. If the back pain doesn't resolve by normal measures the doctors may prescribe physical therapy or taking special injections. But, if even after doing everything described above the issue still resides, then only the doctors may proceed towards surgical measures. That is when Minimally invasive spine surgery comes into play. Now, many would ask, what is this Minimally invasive spine surgery that we're talking about? Minimally Invasive Spine Surgery is a type of minimally invasive surgery, which is typically a surgery that involves smaller cuts to be made with less incisions in comparison to traditional surgery which usually requires relatively larger cuts and incisions. While traditional open spinal procedures are done through large incisions that may range from around 3-7 inches, minimally invasive surgeries perform the same function with incisions that are sometimes even less than an inch.

The main advantage this kind of surgery has over the traditional method is the reduced post-operative care. After a minimally invasive surgery, the patient goes through less pain, less recovery time and has less risk of post-operative diseases as

compared to traditional surgeries. Let's talk about the benefits of MISS in further detail.

WHAT ARE THE BENEFITS OF MINIMALLY INVASIVE SPINE SURGERY (MISS)?

Minimally Invasive Spine Surgery has been a part of Orthopedics and Neurosurgery for a long time now and that's basically because of its several and varied benefits. With the advancement in medical technology, especially with such evolving techniques in orthopedics using computerized navigation systems, minimally invasive spine surgery is more effective now than ever. In medical terms, minimally invasive approach in a spine surgery makes way for smaller incisions, less tissue injury, better meticulous tissue handling than traditional spine surgery. Smaller cuts and less tissue compression lead to improved healing and early recovery. Since more attention is paid to solving the root cause in this kind of procedure by minimizing the area that is involved in the surgery, it results in decreased time of recovery, increased relief in pain and better functional recovery. Minimally Invasive Spine Surgery also offers less post-operative complications, reduced scar tissue and despondence issues which are connected to less blood loss during the surgery.

WHICH CONDITIONS BENEFIT MOST FROM THIS PROCEDURE?

Although MIS surgery accomplishes the same goals as any regular spine surgery, there are still conditions which are still treated through traditional surgeries as there are special conditions that benefit more from MISS. The specific conditions that gain most from MISS are:

- Spinal Stenosis
- Bulging or Herniated spinal discs
- Bone Spurs
- Sciatica
- Leg pain
- Arm pain

- Degenerative diseases
- Spinal tumor

WHICH PATIENTS CAN BE IDEAL CANDIDATES FOR THIS PROCEDURE?

While MISS offers a lot of advantages over traditional spinal surgeries, it is still a surgery and has many complications of its own. However minimal it may be, surgery should always be the last option of treatment to be considered by any patient. As MISS is an advanced and complicated procedure, not every patient is considered ideal for it. All patients go through a careful and long evaluation of pain generators to be considered an optimal candidate to go through minimally invasive spine surgery. The first factor that decides whether a patient's condition is suitable for MISS is the number of pain generators through the spine and their location. If the roots of the pain are spread throughout the spine or there are numerous pain generators, then the doctor might take the traditional route. Minimally invasive procedure requires precise knowledge of which area is to be operated and how exactly, so the doctor needs to be perfectly sure about the patient's condition.

To evaluate whether a patient is a fitting candidate for MISS, the doctors may take the following tests:

- X-ray imaging
- MRI imaging
- CAT scans
- EMG tests
- Nerve conduction tests

HOW IS MIS SURGERY PERFORMED?

While talking about MISS when it's stated that it involves small cuts as much as just a few centimeters wide, people often wonder how exactly is that possible? A term such as Minimally invasive surgery sounds unbelievable in itself but if one looks through the procedure in detail, it comes very clear as in how such minimized surgical impact becomes possible. MISS generally is done with an operative microscope and small tubes through which nerves are decompressed and

spinal discs are removed. Any spinal surgery can be performed with both open and minimal procedures. In an open spinal surgery, the doctors make a long incision in the back, and then with the use of retractors put away the muscles to reveal the bone. Then they remove the bone or remove whatever is causing the pain, and afterwards put the muscles back in place and close up. The problem with this procedure is that the muscles never really go back to the state as they were in before the surgery and hence the patient never recovers completely.

While performing a Minimally Invasive Spinal Surgery, the doctors make a small incision, around an inch, dilate the muscles around it and insert a small tube in the incision. The rest of the procedure is performed down this tube with the help of an operating microscope. The main difference between the regular procedure and minimal procedure is that the doctors operate within the tubular space. It is through this tube that bones are drilled and tendons and discs are removed. MISS even offers a way to access the spine through the skin to perform nerve decompressions or stabilizations. Most of the minimally invasive procedures are done under microscopic magnification so as to provide as much accuracy as possible.

WHAT ALL COMES UNDER POST-OPERATIVE CARE AFTER A MINIMALLY INVASIVE SPINE SURGERY?

As stated earlier, minimally invasive surgery reduces the post-operative care to a great extent as compared to traditional surgeries, but it still requires a lot of care afterwards. Here are some things that patients are advised to expect after a minimally invasive spine surgery:

- **Reduced hospital stays** – One of the biggest benefits of MISS is the reduced recovery time after the surgery. While general surgeries require a lot of recovery time, normal MISS patients can go just after a few hours after the surgery. If the surgery is more serious, then the times increases to one to four days and some may even require to do physiotherapy before being discharged.
- **Less recovery time** – With the decreased hospital stay period, the patients also benefits with decreased overall healing time. Less serious patients can even go back to work in a week or two.
- **Increased and Quicker pain relief** – Minimally Invasive Surgery also results in quicker relief in post-operative pain.

