

# An Overview of Minimally Invasive Spine Surgery

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Few medical procedures are as intimidating as spine surgery. But in recent years, surgeons have developed new techniques and technology to make it much less invasive, with better patient outcomes. This new approach is called minimally invasive spine surgery (MISS).

Most medical schools haven't caught up with the latest advances in technology, so patients still have to be proactive to find a surgeon who practices state-of-the-art MISS. WWMG is fortunate to have Dr. Ali Anissipour, one of the first orthopedic surgeons in Washington State who perform minimally invasive spine surgery, on the team at our Orthopedic, Sports, Spine & Hand Center in Everett.

## What's Involved with Traditional Spine Surgery

Patients can require surgery for a lot of different spinal conditions, including:

- traumatic injuries
- herniated discs
- spinal stenosis
- scoliosis, and
- spondylolisthesis.

Traditionally, to perform surgery on the spine, surgeons have had to open a large incision and sever muscle tissue to reach the area of the spine that requires treatment.

Unsurprisingly, recovery from this kind of spine surgery is a significant process. Patients may spend 3-4 nights in the hospital and require IV narcotics to manage pain.

"That's just the pain component. You can add in the blood loss, the scar tissue, the muscle damage, the time to return to work," said Dr. Anissipour.

After the initial recovery, rehabilitation can be a lengthy process, because patients not only have to recover from the condition that required the surgery, but also from the damage and scarring created by the surgery itself.

## Traditional Surgery is Not the Only Option

Fortunately, traditional spine surgery is no longer the only option for patients with spinal conditions that require invasive treatment.

"Educational systems are slowly bringing in minimally invasive spine surgeons as part of their faculty but there is still a shortage of spine surgeons that have the technical skills to perform surgery in that manner," said Anissipour. Because so few surgeons perform MISS, patients are rarely presented with it as a choice when they receive their diagnosis, and often don't even know that it's available.

Anissipour is one of a handful of orthopedic surgeons in Washington State who have the specialized training to perform minimally invasive spine surgery.

## How Minimally Invasive Spine Surgery Works

Instead of opening a large incision and cutting muscles to reach the spine, a surgeon performing MISS inserts the surgical tools through small incisions and moves muscles out of the way, to avoid forming scar tissue.

“The main difference is that it’s more muscle and soft tissue sparing. There’s less damage to the soft tissues doing surgery through small incisions and working between the muscle planes,” said Anissipour.

“Although these techniques can be more technically difficult, the art of it is constantly evolving and more advanced technology is continuing to come out to improve the process.” Anissipour was the first doctor in Washington to use the Mazor robot, which gives surgeons perfect accuracy in surgical screw placement.

With less blood loss and soft tissue damage, MISS patients can experience less pain and a faster recovery. “There are studies to back up that the use of minimally invasive techniques has led to shorter lengths of stay in the hospital and a greater percentage of these procedures moving to the outpatient surgery center setting,” said Anissipour. Lumbar fusion, for example, can often be performed at an outpatient facility such as WWMG’s Gateway Surgery Center.

“I did a lumbar fusion yesterday at the surgery center and that patient went home three hours later. They were up and walking,” said Anissipour.

With shorter recovery times, patients can also start rehabilitation earlier, return to work, and resume their normal lifestyle faster.

“Rehabilitation is certainly more challenging when a big midline incision is made, and the muscles are cut and spread apart really wide. It’s going to take a long time to get that to heal together and overcome the scar tissue associated with it,” said Anissipour. MISS reduces the recovery time needed to heal.

## Disc Replacement vs. Spinal Fusion

Another advance in spinal surgery is the move toward motion sparing procedures. Anissipour explains, "In some cases, especially in the cervical spine, the gold standard has been to fuse the neck which is to take care of any neural impingement and then get two to four bones to heal all together rigidly into one bone. That's called fusing the spine.

"That works, but especially in the neck, it takes away range of motion on a permanent basis and can transfer stress to levels that are not fused. So, we are moving into greater indications for a patient to get an artificial disc replacement instead. That achieves the same goals as fusion surgery in terms of taking pressure off the spine, but afterwards an artificial disc promotes more motion."

## Who is a Candidate for Minimally Invasive Spine Surgery?

MISS is an option for nearly all spinal conditions that require surgery. The primary exception would be for a patient who has had a previous spinal surgery. "In cases where someone has already had spinal surgery and some things need to be revised, that can be challenging to do in a minimally invasive way," said Anissipour.

Insurance companies do not generally distinguish between MISS and traditional spinal surgery in their coverage rates. But out of pocket costs for patients can be significantly lower for minimally invasive spine surgery, thanks to reduced hospital stays. And patients who choose to have their surgery done at an outpatient facility such as WWMG's Gateway Surgery Center will find a more affordable, personalized level of care than at a hospital.

## When to Seek Help for Back Pain

If you're experiencing the radiating limb pain associated with neural impingement (pinched nerves), or have received a diagnosis that may require spinal surgery, contact WWMG's Orthopedic, Sports, Spine and Hand Center and request a consultation with Dr. Anissipour to determine if surgery is necessary.

If you have chronic back pain, see your WWMG primary care provider or contact our Physiatry department. Our providers can help you understand your condition and your treatment options. If surgery is required, minimally invasive spine surgery can get you back on your feet faster and with less pain.