

**BRANKO PRPA M.D.**  
*Spine Surgery*

# Dealing with Pain After Spinal Surgery

## What's Inside:



Diagnosing a Failed Neck or Back Surgery



Understanding a Revision Surgery



Recovering from Surgery





## Diagnosing a Failed Neck or Back Surgery

**Failed Back Surgery Syndrome (FBSS) and Failed Neck Surgery Syndrome (FNSS) are not uncommon following a complex spinal surgery. What happened and what is causing this pain months or even years later?**

Your back or neck surgery was supposed to provide relief. Months to years later, however, you are experiencing little to no improvement, or even worse, new pain in other areas. This surgery was a last resort, but didn't seem to work. What happened and is this normal?

Failed Back or Neck Surgery Syndrome (FBSS or FNSS) refers to any continued or new pain following a spinal procedure. According to [The National Center for Biotechnology Information](#), these conditions are quite common and affect between 20% to 40% of patients.

The possible causes and complications of failed back or neck surgery vary depending on your symptoms. For a detailed diagnostic evaluation of your personal pain post surgery, it is recommended that patients schedule a consultation immediately with a revision surgery specialist to determine the best course of action and the optimal treatment plan.

Answers to these commonly asked questions about pain after spine surgery will help you determine if you are suffering from FBSS or FNSS, possible causes and care.

## Do I have Failed Back Surgery Syndrome (FBSS) or Failed Neck Surgery Syndrome (FNSS)?

We all have good and bad days. Especially after a major and complex spine surgery, it's expected to need physical therapy and pain management over time. However, recovery should be manageable. If in the months and years following surgery you experience continued or the sudden onset of intense pain, numbness, or inability to complete daily tasks, you may be experiencing these conditions. If the following symptoms sound familiar, you should contact an orthopedic surgeon revision specialist immediately.

- ✓ Continued lack of mobility immediately following the surgery
- ✓ Flair ups every time you bend over, sit or stand for too long
- ✓ Difficulty or pain getting out of bed or after sitting for an extended time.
- ✓ Avoiding using staircases reaching to high shelves
- ✓ Continued pain medication regimen similar to what you were on pre-surgery
- ✓ Joint pressure or shooting pain down your arms and legs
- ✓ Little to no increased quality of life or improvements
- ✓ Understanding your Spinal Surgery Failure

## Why am I having this pain after surgery?

Post-surgery pain is not only frustrating and disappointing, but can feel extremely scary too. It's difficult not to want to blame someone or something for your pain. Often patients wonder if it was their fault. The answer is: no, not usually. Although some factors including lack of physical therapy can greatly affect the body's ability to heal from a spinal surgery, there are a number of factors out of your control.

The spine is complex. It is a highway of diverse structures and the source of communication between your brain and body. As you were hopefully told before surgery, cervical and lumbar surgery poses a number of risks and complications. To effectively treat your post-surgery spinal pain, a specialist will need to assess the pain source, potential misdiagnosis pre-surgery, and possible surgical complications. Pain at the initial surgical site, pain occurring at the surrounding vertebrae, or numbness in your extremities may all indicate various causes and complications that will determine the best route to proceed in treating your pain.





After age 40, disc degeneration doubles every 20 years

## What are possible complications resulting from FBSS or FNSS?

**Recurring Disc Herniation:** Surgery for a herniated disc only removes part of the disc, leaving a portion that could continue to bulge and eventually herniate as well. Wear and tear on the spine creates a natural breakdown of cushion between the vertebrae and gets worse with age. According to an article in [Science Daily](#), after age 40, disc degeneration doubles every 20 years. Though not all degeneration results in a herniation, your risk of Recurrent Disc Herniation may increase with age.

**Surrounding Vertebrae Strain:** Surgery increases tension and reliance on surrounding joints, often resulting in strain and possible injury of vertebrae above or below the initial surgical site over time. This is often referred to as: "Adjacent Segment Degeneration Disease." Proper physical therapy, exercise, and care are prescribed post surgery as a preventative for surrounding vertebrae complications. However, injury, age, and stress from the surgery can cause complications to other parts of your spine.

**Lack of Fusion:** Your cervical or lumbar fusion may not have properly fused. Spinal fusion surgery simply provides the condition for the bones to fuse, but is extremely complex in surgery and post surgery. A year after surgery, over half of fusions fail to occur, referred to as "Pseudarthrosis." Causes may range from hardware, lack thereof, bone graft, misdiagnosis, surgical procedure type, or personal health and habits. A [Very Well Health](#) article quotes a spinal textbook that states fusions without hardware implants are at a 70% higher risk of Pseudarthrosis.



**Hardware Complication:** More common in complex and longer surgery procedures, pain at the surgical site may indicate “Painful Hardware Syndrome.” Causes could include: loose screws, hardware detachment, surgeon error, or implant infections. Age and diabetes seem to play a role in the loosening of screws in a study discussed in [The Journal of Neurosurgery](#).

**Nerve Damage:** Numbness, pain, or lack of proper mobility anywhere in the body could indicate nerve damage, or “Arachnoiditis.” Nerves are surrounded by a protective cushion that may have gotten damaged during the procedure. Mild to severe symptoms can result from Arachnoiditis from occasional pain to a lack of proper function of the bladder or extremities.

**Scar Tissue Inflammation:** An overabundance of scar tissue formation, known as Epidural Fibrosis, doesn’t always result in painful symptoms. Scar tissue is part of the body’s natural healing process, and will present in most spinal surgeries. However even with initial spinal surgery success, a sudden increase in pain months following a procedure could be caused by this excess scar tissue build up and inflammation.

## Following a diagnosis of Failed Back Surgery Syndrome (FBSS) or Failed Neck Surgery Syndrome (FNSS), what’s next?

Most likely, treatments for FBSS and FNSS will look very similar to what you encountered pre-surgery. Unless there is an immediate cause to reenter the surgical site, doctors will usually begin with pain management and rehab including: steroid injections, spinal cord stimulation, drug infusions, narcotics, and physical therapy.

If pain management and therapy do not improve your quality of life, your doctor may discuss a revision surgery. The word surgery can be daunting, especially after the complications and pain you’ve already encountered from a spine surgery. However, a proper revision surgery specialist can discuss additional tactics that can encourage a proper recovery this second time around.





## What is Revision Surgery?

**You've been here before. This is all too familiar. The chronic pain, shooting down your arm or leg, the inability to complete everyday tasks.**

After years of simply managing the pain, you were hopeful that the surgery would be the end all. Nonetheless, here you are, with similar symptoms and very little relief. After months of pain management, rehabilitation, physical therapy, and evaluations of your conditions, the doctors have recommended revision surgery. But what exactly is Revision Surgery and what hope do you have for recovery this second time around?

A revision surgery is a procedure to correct a previous operation that was unsuccessful for any of the below reasons:

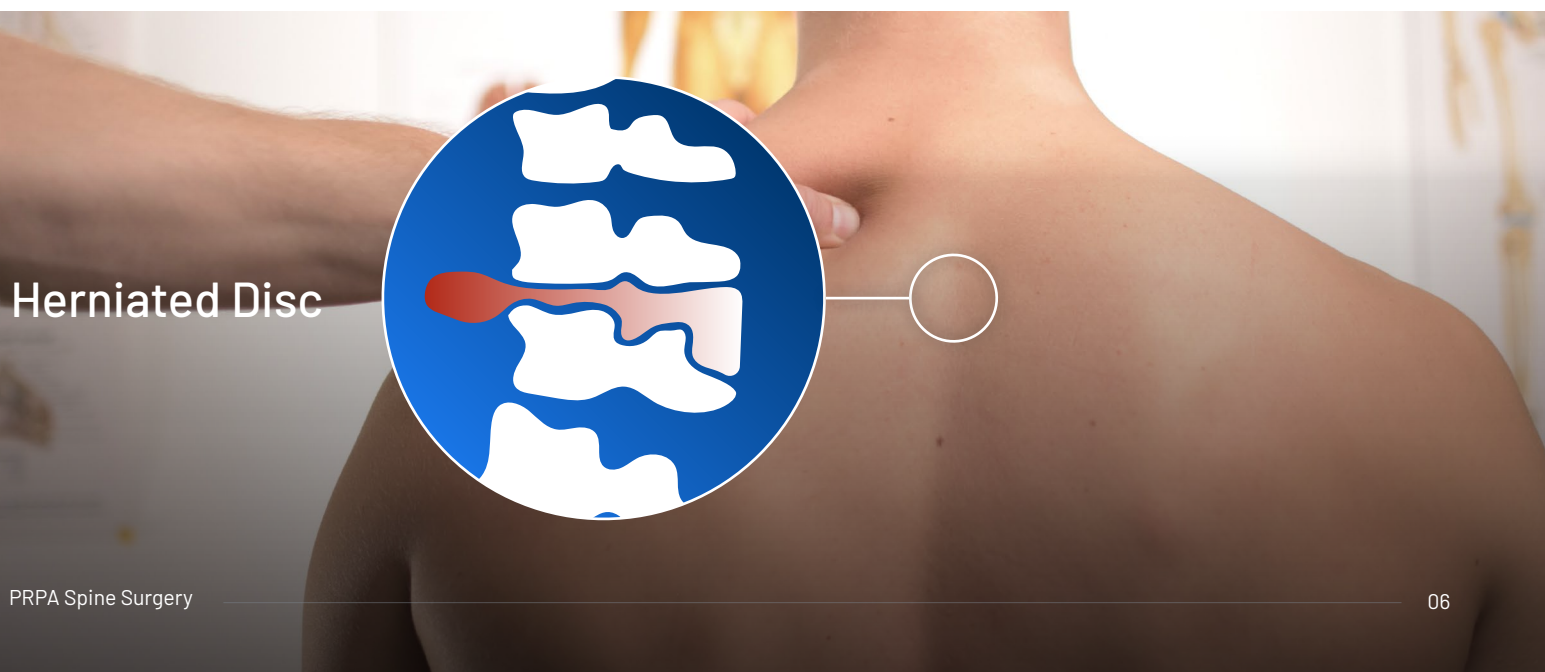
- ✓ The surgery failed to relieve pain from your initial condition
- ✓ The pain was misdiagnosed
- ✓ There was an error during surgery
- ✓ The bones didn't fuse properly following a spinal fusion
- ✓ Post op pain due to infection or hardware malfunction

The spine is one of the most complex parts of your body with 33 small irregular shaped bones protecting the vital job of the spinal cord. This means that a spinal surgery complication is unfortunately a tricky situation and should be addressed by an experienced specialist in revision surgery.

**Revision Diagnosis:** Depending on the type of initial surgery you underwent and your current symptoms, a revision surgery specialist will determine the best course of diagnostic imaging and tests to correctly determine the cause of your pain after surgery. If another doctor has done any recent post-op imaging, the specialist may ask to see these but will most likely still want to do his/her own diagnostic testing for a full picture of your past surgery and current conditions. For example, a CT scan may be used to locate a fracture or lack of fusion, an MRI will help find nerve compression or presence of a herniated disc, an X-ray can observe the alignment and hardware implant, a bone scan could identify an infection, and finally the EMG can determine nerve functionality. Some complications like loose screws or infection may require an immediate re-entering, which should be addressed by a revision surgeon who specializes in tending to an already tender surgical site.

**Once the surgeon has diagnosed the source of your current discomfort he/she may confirm your need for a revision surgery for one of the following procedures:**

**Revision Discectomy:** The original procedure for a herniated disc only removes part of the vertebrae thought to be causing the pain or numbness, however a doctor may recommend a revision discectomy if he/she determines that more of the bone needs to be shaved in order to fully relieve your pain. For small herniations this can often be done through a minimally invasive procedure: a microdiscectomy. If you've experienced more than one recurring disc herniation, your doctor may suggest conservative treatment and pain management as the best solution. A revision surgery specialist will be able to provide you with the best diagnosis and solution for a recurring herniation.







About 45-56% of revisions are often due to pseudarthrosis

**Revision Fusion:** Unfortunately, a herniated disc can often be beyond repair from a revision discectomy and unable to be remedied due to degeneration or stenosis. In this instance, a complete fusion of the area causing discomfort may be an option your doctor discusses with you. If you have already had a fusion surgery, and your doctors diagnose your post op pain as pseudarthrosis (a lack of proper fusion) your doctor may still recommend an additional fusion revision. Fusion relies on the bones to naturally fuse and heal together, however a variety of causes including smoking, diabetes, obesity, age, nutrition, and hardware may result in failure to fuse on their own. About [45-56% of revisions are often due to pseudarthrosis](#), so it's crucial to make sure you adhere to your doctor's thorough recovery instructions to improve your chance for a successful fusion.

**Epiduroscopy:** This surgery involves the removal of scar tissue build up that is causing pain months following surgery. Scar tissue is a necessary and inevitable reaction to surgery, however an excessive buildup can attach to and compress surrounding nerves. An [Epiduroscopy](#) procedure allows the revision surgeon to see directly into the irritated area, remove adhesions and fibrosis with a laser, and administer local steroids to decrease inflammation and detach the nerve from the scar tissue. The leading beneficial aspect of this approach is its precision. However, an additional procedure brings additional risk for scar tissue, so it's important to have a specialist perform this procedure and advise you on best practices to prevent scar tissue this time around.

**Foraminoplasty:** Your doctor will often take the least invasive approach possible in your revision surgery. Foraminoplasty is an increasingly preferred procedure that involves a small incision and tiny surgical tools to access a specific portion of the spine with minimal impact to surrounding muscles and tissues. This approach may be discussed with you in the event of a herniation, bone spur, stenosis, or nerve compression depending on the severity of your symptoms and accessibility to the source. [Foraminoplasty has a 90% success rate](#) and is highly recommended for older patients.





**Foraminoplasty  
has a 90% success  
rate and is highly  
recommended for  
older patients**

**Spinal Hardware Removal & Revision:** In the event that your body has reacted negatively to any hardware installed during your previous surgery, you may begin to experience pain due to an infection. As your body rejects the metal implant, screws may loosen and need to be addressed immediately. A revision surgeon will remove the hardware and treat the infection with antibiotics. Additionally, preventative measures can be taken to prevent infection with antimicrobial coating of screws through this revision surgery.

Surgery in itself is always a risk with possible complications. Each body is unique and each surgery is also unique, so the broad spectrum of possible outcomes is difficult to access. Revisiting a surgical site where there is already distress and complications is a very complex and multi-faceted surgical procedure and should be done by a doctor familiar with revision surgeries. Some of the above procedures have better results than others. A doctor that properly diagnoses the cause of your pain and manages your recovery is crucial for a revision surgery success and getting you back on the road to recovery.



## Spine Surgery Recovery: Come Back like a Champ

*Don't let a lack of independence or mobility affect your recovery time.*

**After months of imaging and evaluations of your conditions, the doctors have recommended revision spinal surgery. So you feel like you're back to square one. Though every surgery is different, you are already a step ahead because you are an experienced spinal surgery patient, now.**

Even though you've been here before, it's important to review all the reminders to properly prepare for recovery from spine surgery. A successful recovery depends on more than what is done during the procedure. There are some elements of post operative care that are in your control and may have decreased the effectiveness of your initial spine surgery. You want this surgery to be your last.



These preparation tips and recovery tools will help you come back from revision spinal surgery like a champ:

## Set Up Your Home for Recovery

As you probably remember, you will be spending a lot of time at home in a limited space during your recovery. Set up this space ahead of time to make your post op experience more comfortable and, provide you with additional accessibility that you may not have had during your original spinal surgery recovery. It can be frustrating depending on others for help with little tasks and it's important for your recovery to get moving within your restrictions to the best of your ability. These tips can increase independence and mobility.

- ✓ **Get Comfortable:** Laying down and rolling out of bed may be difficult, set up a comfortable chair that is easy to get in and out of to spend your first few nights in.
- ✓ **Check Accessibility:** Many post op restrictions limit heavy objects and reaching above the head. Make sure everything you'll want to access is lightweight and on a low shelf.
- ✓ **Entertainment:** Remember every surgery is different, and recovery timelines can fluctuate. It's a good idea to have extra entertainment options planned.

## Remind Yourself to Keep Moving

Don't limit yourself to one area. As you begin to get more active and roam the house, you'll want at least 2 additional rooms and spaces you can rotate throughout your spine surgery recovery so you aren't stuck in one spot. Changing your environment will help encourage mobility and improve your recovery time.

Movement increases your body's ability to heal. Increased blood flow to the surgical site will provide your body with the essential support it needs to fully recover. Review with your doctor and physical therapist any planned exercises and purchase any accessories that will help you complete your exercises. If you didn't have any tools or physical therapy accessories the first time around, definitely get these this time.





Therabands are incredible tools that increase your ability to stretch and provide resistance for strength building with manageable exercises.

- ✓ **Grabber Tool:** Chances are you will need something on a high shelf or in a low corner. A grabber tool will help you independently access whatever you need while building strength.
- ✓ **Shower Mat & Brush:** Cover any slippery surfaces with rugs or no slip mats so you don't set back your recovery time with a slip and unnecessary injury.
- ✓ **Shower Brushes:** Keeping your incision clean and dry can be difficult, however, a brush can help this process and provide you independence in the shower.
- ✓ **Heating Pads & Ice Packs:** Getting your blood moving and inflammation down is crucial. Double check previously used ice packs and heating pads are still in good shape.
- ✓ **Therabands:** Therabands are incredible tools that increase your ability to stretch and provide resistance for strength building with manageable exercises.

### Develop Positive Habits:

Bad habits like eating unhealthy foods or smoking can affect your ability to fully recover. It will be tough to stop a bad habit the moment you come out of surgery, so start developing a plan now to eat a healthy diet and eliminate smoking. Excess weight on the joints can significantly increase pressure, tension, and pain of the surgical site, and research shows nicotine affects the bone's healing process and unnecessary scar formation. Communicate with your doctors any concerns and discuss any needed adjustments that will better set you up for an optimal recovery.

It's important to remember that every surgery is different. However, with your experience and implementation of these tools and tips, you will be better equipped to manage your recovery with improved mobility and independence.





**BRANKO PRPA M.D.**

*Spine Surgery*

Positive support is important, and it will be even more crucial your second time around. Reach out to close friends, extended family, and your doctors for support and resources. An experienced revision surgery specialist and physical therapist should discuss your surgery, recovery and your post op plan with you to encourage a positive experience and recovery. Being informed and prepared will set you up for success.

**Contact Dr. Branko PRPA, an orthopedic and revision specialist,  
if you are experiencing pain after spinal surgery or have any  
questions about revision surgery.**

**Contact Dr. Branko PRPA**

