A New Treatment for Sacroiliac Joint Problems
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Do You Have SI Joint Pain?

Do you experience one or more of the symptoms listed below?

- Low back pain
- Pain when sitting
- Sitting on one side of your buttocks to avoid pain on the other
- Pelvis/buttock pain
- Thigh/hip pain
- Pain shooting down the leg
- Difficulty sitting in one place for too long
- Difficulty sleeping

Studies show that sacroiliac (SI) joint disorders are challenging conditions affecting up to 25% of patients with low back pain.¹

Patient education is a critical component of healthcare today. It is important that you are informed of your diagnostic and treatment options. In this educational brochure, you will find information about low back problems caused by SI joint disorders and various treatment options for stabilizing the SI joint.

We invite you to read on to learn about the diagnosis and treatment of SI joint disorders.

A History of the SI Joint

SI joint disorders and associated symptoms have been well known for over a century. In fact, in the early 1900’s all symptoms which seemed to arise from the back were attributed to the SI joint, and many surgical treatments were directed at that joint.

In 1934, a paper was published on the disc as a source of symptoms in the back. As a result, disc treatment became the most common operation for orthopedic surgeons, and the SI joint was all but forgotten. Now, 70 years later, orthopedic and spine surgeons as well as pain specialists have recognized that the disc is not the only source of low back symptoms.

According to published scientific data, it’s common for pain from the SI joint to mimic disc or low back pain. Many patients go on to receive lumbar spine surgery (surgery for the lower part of your spine) instead of SI joint fusion, so SI joint disorders should be strongly considered in low back pain diagnosis.²


SI Joint in Back & Pelvic Symptomology

The SI joint is located in the pelvis; it links the iliac bones (pelvis) to the sacrum (lowest part of the spine above the tailbone).

Like any other joint in the body, the SI joint can be injured and/or become degenerative. When this happens, people can feel pain in their buttock and sometimes higher on the axial skeleton (bones forming the central axis of the body: the skull, the vertebral column, the ribs and the sternum). This is especially true with lifting, running, walking or even sleeping on the involved side.

It is important to note that on occasion, patients who have not had symptomatic relief from lumbar spine surgery may actually have had other issues to begin with. This could include the SI joint, the hip, the spine, or any combination of these three pain generators.

Diagnosis of the SI Joint as a Source of Symptoms

The good news is that your surgeon can now distinguish between low back symptoms arising from the lumbar portion of the spine and the SI joint. A variety of tests performed during physical examination may help determine whether the SI joint is a source of your symptoms. In addition, X-rays, CT-scan, and/or MRI are helpful in the diagnosis of SI joint-related problems. It is also important to remember that more than one condition (like a disc problem) can co-exist with SI joint disorders.

An often relied upon method to determine whether the SI joint is the cause of your low back symptoms is to inject the SI joint with Lidocaine, a local anesthetic. Your surgeon will deliver the injection with either fluoroscopic or CT guidance to verify accurate placement of the needle in the SI joint. If your symptoms are decreased by a minimum of 75%, it may be surmised that the SI joint is either the source, or a major contributor, to your low back pain.\(^3\) If your symptoms do not change after SI joint injection, it is less likely that a problem with your SI joint is the cause of your low back symptoms.

Treatment Options

Conservative Therapy

Once the SI joint is confirmed as a source of your symptoms, treatment can begin. Some patients respond to physical therapy, chiropractic manipulations, use of oral medications, as well as injection therapy. The anti-inflammatory effect of SI joint injections is not permanent and do not offer an opportunity to stabilize an incompetent SI joint.4

Intermittent use of a pelvic belt may provide symptomatic relief as well. These treatments are performed repetitively, and frequently symptom improvement using these therapies is only temporary. Once non-surgical treatment options have been tried and do not provide relief, your surgeon may consider other options, including surgery.


SI Joint Fusion with the iFuse Implant System®

Sacroiliac joint SI joint fusion, is a surgical procedure intended to stabilize the joint and eliminate motion. The iFuse Implant System uses small titanium implants placed across the sacroiliac joint to stabilize and fuse it.

The iFuse Implant System is intended for sacroiliac joint fusion for conditions including sacroiliac joint disruptions and degenerative sacroiliitis.

As with all surgical procedures and permanent implants, there are risks and considerations associated with surgery and use of the iFuse Implant. You should discuss these risks and considerations with your physician before deciding if this treatment option is right for you.
1. What are some causes for pain in the lower back, buttocks or pelvic region?

Low back pain is a common problem that affects many people during their lifetime. For some, low back pain can be an acute, short-term problem. Others experience chronic, long-term symptoms. There are many structures in the lower back and pelvic area that can cause pain. Most commonly, people think of a “slipped disc” as a cause of low back pain. The word “sciatica” may be used when describing low back pain. Occasionally, hip problems can be confused with low back conditions. In fact, there are many causes of back pain, including arthritis of the back, osteoporosis, and a poorly aligned spine. The SI joint can be a significant contributor to pain in the lower back, pelvic region, buttocks, or legs.

2. Where is my SI joint?

The SI joint is located in the pelvis, linking the iliac bone (pelvis) to the sacrum (lowest part of the spine above the tailbone).

3. How does my SI joint work?

The function of the SI joint is to transfer weight and forces due to movement from your upper body through the pelvis to your legs and vice versa. Your pelvis acts as a central base through which large forces are transferred and dissipated. The primary role of the sacroiliac joint is to provide stability for the pelvis and to bear the load of the upper body.

4. Why does the SI joint start having problems?

If the motion in your pelvis is asymmetric, then problems can occur in your SI joint. You could have asymmetric motion if your legs are significantly different in length. This can be congenital or caused due to an injury or illness such as polio or scoliosis. Other conditions that can predispose you to SI joint problems include having one leg that is weaker, such as seen with hip osteoarthritis. These biomechanical conditions, or even wearing inappropriate footwear, can alter your gait and cause repetitive stress to your sacroiliac joint and related structures. Other potential causes of SI joint problems include joint disruptions, degenerative sacroiliitis, history of trauma, pregnancy/childbirth, and other unknown reasons.

5. How does the SI joint cause pain?

The SI joint is a synovial joint. This type of joint has free nerve endings that can cause chronic pain if the joint degenerates or does not move properly. The SI joint has been long known to cause pain in the lower back and buttocks. Like any other joint in the body, the SI joint can become arthritic or its support ligaments can become loose or injured. When this happens, people can feel pain in their back, especially with lifting, running or even walking. In these cases, the pain is felt in the back, sometimes similar to the pain caused by a “disc” or spinal arthritis.

6. How common are SI joint problems?

It is commonly reported in clinical literature that up to 25% of all low back pain is caused by the SI joint. Risk factors associated with lower back pain may include, smoking, poor physical condition, positive family history, and occupational lifting. 5,6,7

7. How is low back pain due to the SI joint manifested?
Many people have pain that worsens over time. However, over half the time SI joint pathology can be related to a specific event, often an injury. It is difficult to directly relate any specific functioning difficulty (including walking, sitting, standing, sleeping on the affected side, job activity, bowel movements, cough, sneeze, etc.) to the sacroiliac joint as a source of pain. The most significant indication is the specific location of the pain below the lumbar spine.

8. Who is at risk for SI joint problems?
Women may be at increased risk for SI joint problems because of their broader pelvises, the greater curve of their necks, and shorter limb lengths. In addition, pregnancy often leads to stretching of the pelvis, specifically in the sacroiliac ligaments. Injury from accidents is another predisposing factor for SI joint pain.

9. How would I know that my SI joint is not functioning properly?
If you have trouble sleeping comfortably, or frequently experience your knee giving way, pain in certain lying or bending positions, or tenderness in your buttocks, you may have an SI joint disorder.

10. Will my doctor check for SI problems?
Doctors do not always look for the SI joint as a source of lower back pain, although many articles have been written about it. Sometimes your lower back pain may have been previously diagnosed as originating from the lumbar spine. However, if your symptoms don’t fit what the doctor can see on an MRI, this may indicate that your pain is coming from a place other than the lumbar spinal region. Your doctor may determine if your SI joint is the source of your pain by ruling out other sources of pain as well as running specific tests.

11. What should I tell my doctor about my back or buttock pain?
The most important information you can give your doctor is the exact location of your pain. Try to notice when the pain occurs and how intensely you feel it in various locations, including your low back, buttocks, and legs. Also, be sure to tell your doctor about any previous injury that may have either directly affected your pelvis, or caused you to walk asymmetrically.
12. How will my doctor determine whether I have SI joint problems?

Your doctor will consider all the information you provide, including any history of injury, location of your pain, and problems standing or sleeping. Your doctor will also give you a physical examination. You may be asked to stand or move in different positions and point to where you feel pain. Your doctor may manipulate your joints or feel for tenderness over your SI joint.

In addition, X-rays, a CT scan, or MRI may be helpful in diagnosis of SI joint disorders. It is also important to remember that more than one condition (like a disc or hip problem) can co-exist with SI joint problems and your doctor will need to check for other factors that may be causing your pain.

The most reliable method to determine the cause of SI joint pain is to inject the SI joint with painkillers. Your doctor will deliver the injection with either fluoroscopic guidance or CT guidance to ensure that the needle is accurately placed in the SI joint. If, following the injection, your pain is decreased by more than 75%, then it can be concluded that the SI joint is either the source, or a major contributor, to your low back pain. If the level of pain does not change after the injection, it is less likely that the SI joint is the cause of your low back pain.

13. How easy is it to diagnose SI joint problems?

It is not always easy to diagnose SI joint disorders, but provocative tests and injections are helpful for confirming the SI joint as the pain source. Sometimes your physical findings may indicate a SI joint condition, but chronic changes may also be seen in your lumbar spine. Your doctor may discuss the difficulty of making a correct diagnosis in the presence of multiple abnormalities.

14. What are some options for treatment of SI problems?

There are several options for treating SI joint problems. Some people respond to physical therapy, chiropractic manipulations, and exercises. Others require more interventional treatments including various oral medications, or therapeutic injections. Usually pain improvement using these therapies is temporary and treatments may need to be performed repeatedly to treat recurrent pain.

Sacroiliac joint arthrodesis, or SI joint fusion, is a surgical procedure intended to stabilize the joint and eliminate motion. SI joint fusion can relieve pain in many cases.8

Who is Eligible to Have SI Joint Fusion?

The following patients have graciously given permission to present their personal experiences regarding SI joint problems and subsequent surgery using the iFuse Implant System.

**Case 1: SI joint pain limited my life.**

For 13 years, she experienced chronic low back symptoms after childbirth. For most women after parturition, the sacroiliac joints normally revert to a tightened and locked position. But for 1-in-5 women like Leigh, full tightening does not occur and these women develop varying intensities of chronic low back pain.9

As her symptoms increased, simple housework became challenging and her performance as an X-ray tech diminished.

After trying multiple therapies to relieve her symptoms, Leigh’s surgeon recommended the iFuse Implant System. This minimally invasive procedure is designed to stabilize and fuse the SI joint.

There was an equivalent reduction in symptoms eight weeks post-op compared to the two weeks following injection. The patient returned to full-time work at twelve weeks post-op. At 12 months there have been no recurrence of symptoms following surgery.


**Case 2: I suffered with back pain for 30 years before I got help.**

“I went to my doctor with persistent low back problems several years after undergoing hip replacement surgery. I was spending many hours in physical therapy without experiencing any relief.”

“Due to the severity of the symptoms, my physician recommended sacroiliac (SI) joint fusion after he diagnosed it using CT guided injection, which provided temporary relief. Within three months following the surgery, I experienced significant relief and was able to resume my normal daily activities. In the subsequent months, I continued to improve, and at one year, the iFuse has returned me to a normal lifestyle.”

**Case 3: I had been suffering from low-back pain for years.**

“It was absolutely depressing because if you hurt all the time, it’s a cycle. You hurt; you sit; you don’t do things; you don’t get out. I was limited in my ability to stand for periods. I was limited in my ability to walk. I was limited in my ability to lift. It was difficult to do my job. It was difficult to play with my grandchildren. Stair climbing was almost impossible.”

“I met with my doctor following my injection, which showed that the source of my pain was the SI joint, he explained the procedure, which would be an implanting of these implants in my SI joint. The procedure went very well. I was up and out of bed that same day, into physical therapy. I have no awareness of having the implants in my back at all. I gardened all summer, and it was no problem for me.”
For more information please visit: www.si-bone.com