

# Sacroiliac Joint Dysfunction

## Introduction

# Physical Therapy in Newburgh and Orange County New York for Lower Back

## Sacroiliac Joint Dysfunction



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**Welcome to Peak Physical Therapy's patient resource about Sacroiliac Joint Dysfunction.**

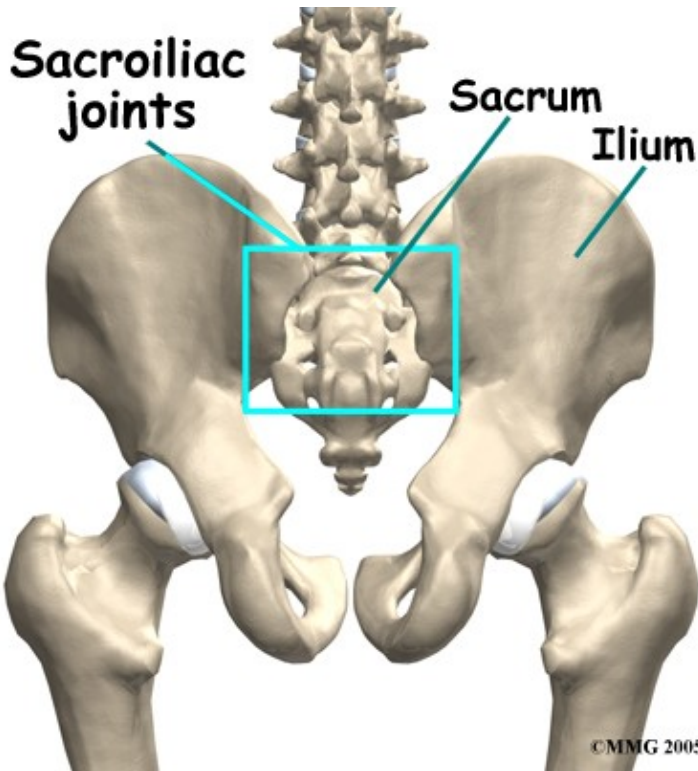
A painful sacroiliac joint is one of the more common causes of mechanical low back pain. Sacroiliac (SI) joint dysfunction is a term that is used to describe the condition - because it is still unclear why this joint becomes painful and leads to low back pain. Sacroiliac joint dysfunction can be a nuisance but it is seldom dangerous and rarely leads to the need for surgery. Most people who suffer from this problem can reduce the pain and manage the problem with simple methods.

**This article will help you understand:**

- how the problem develops
- how doctors diagnose the condition
- what treatment options are available

## Anatomy

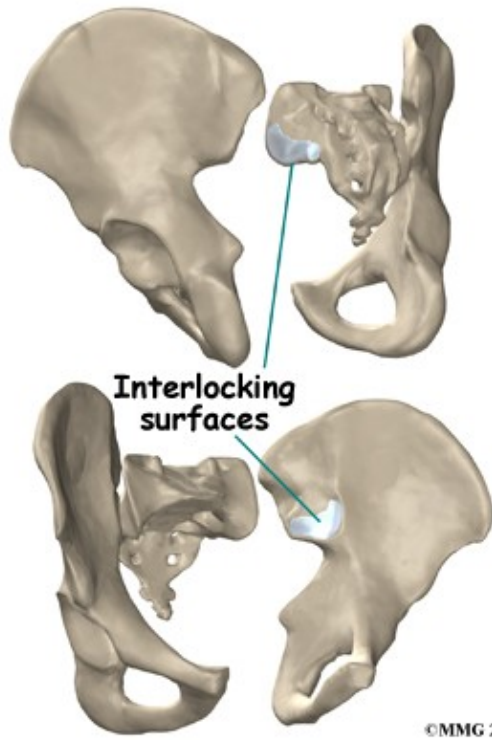
What part of the back is involved?



At the lower end of the spine, just below the lumbar spine lies the *sacrum*. The sacrum is a triangular shaped bone that is actually formed by the fusion of several vertebrae during development. The *sacroiliac (SI) joint* sits between the sacrum and the *iliac bone* (thus the name “sacroiliac” joint). You can see these joints from the outside as two small dimples on each side of the lower back at the belt line.

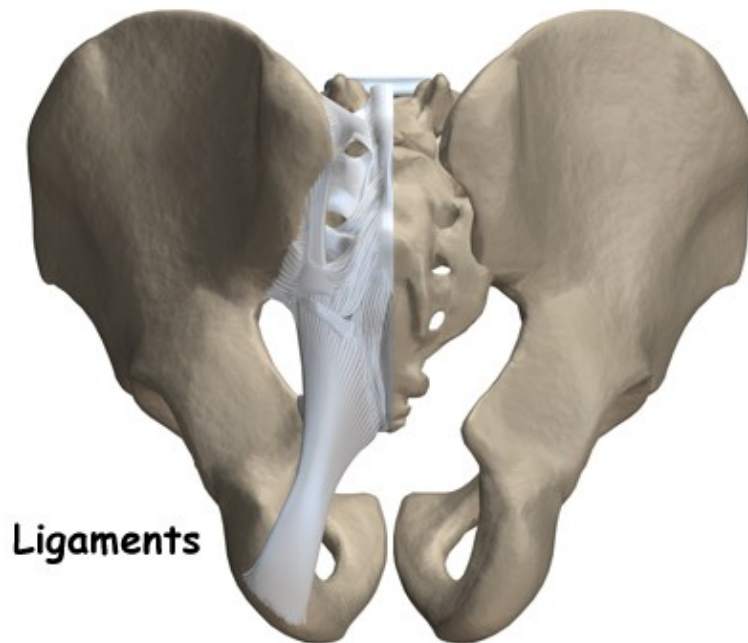
The SI joint is one of the larger joints in the body. The surface of the joint is wavy and fits together similar to the way Legos fit together. Very little motion occurs in the SI joint. The motion that does occur is a combination of sliding, tilting and rotation. The most the joint moves in sliding is probably only a couple of millimeters, and may tilt and rotate two or three degrees.

## Surface of Joint Fits Together



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The SI joint is held together by several large, very strong ligaments. The strongest ligaments are in the back of the joint outside of the pelvis. Because the pelvis is a ring, these ligaments work somewhat like the hoops that hold a barrel together. If these ligaments are torn, the pelvis can become unstable. This sometimes happens when a fracture of the pelvis occurs and the ligaments are damaged. Generally, these ligaments are so strong that they are not completely torn with the usual injury to the SI joint.



**Ligaments**

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## Ligaments

The SI joint hardly moves in adults. During the end of pregnancy as delivery nears, the hormones that are produced causes the joint to relax. This allows the pelvis to be more flexible so that birth can occur more easily. Multiple pregnancies seem to increase the amount of arthritis that forms in the joint later in life. Other than the role the joint plays in pregnancy, it does not appear that motion is important to the function of the joint. The older one gets, the more likely that the joint is completely *ankylosed*, a term that means the joint has become completely stiffened with no movement at all. It appears that the primary function of the joint is to be a shock absorber and to provide just enough motion and flexibility to lessen the stress on the pelvis and spine.

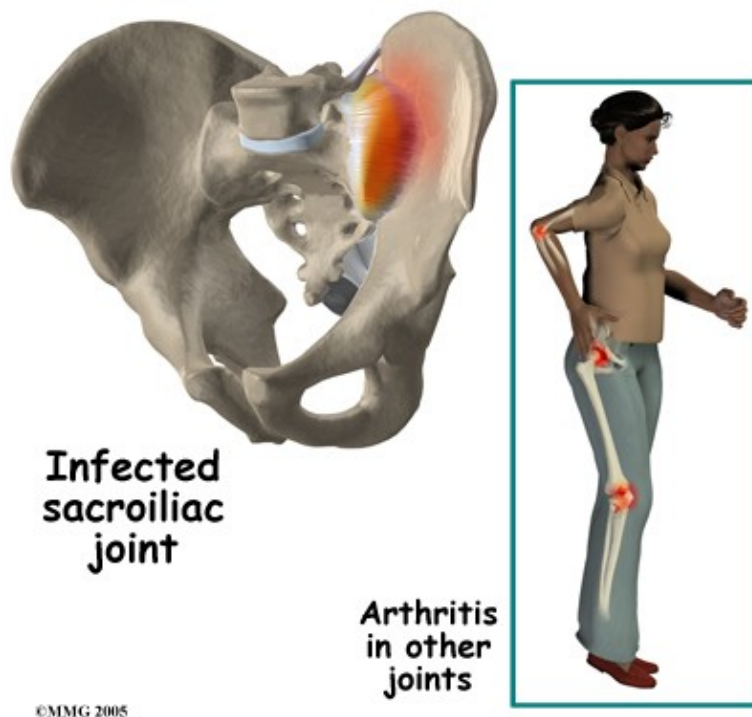
Related Document: [Peak Physical Therapy's Guide to Lumbar Spine Anatomy](#)

## Causes

### What causes this problem?

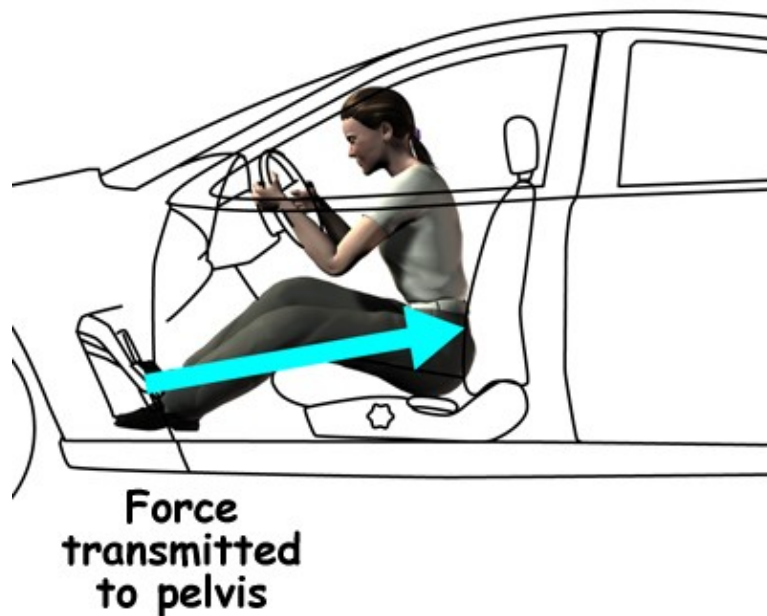
There are many different causes of SI joint pain. Pregnancy may be a factor in the the development of SI joint problems later in life. Also, if a person has one leg is shorter than the other, the abnormal alignment may end up causing SI joint pain and problems. Often, an exact cause leading to a painful SI joint condition can't be found. The joint simply gets painful, and the patient and provider don't have an answer as to why the joint has become painful.

The SI joint is a *synovial joint*, similar to all joints such as the knee, hip and shoulder. Because of this, different types of arthritis that affect all the joints of the body will also affect the sacroiliac joint. This includes conditions such as rheumatoid arthritis, gout and psoriasis. The joint can be infected when bacteria that travel in the blood settle in the joint causing a condition called septic arthritis. This is perhaps the most worrisome cause of SI joint pain and may well require surgery to drain the infection.



Injury to the SI joint is thought to be a common cause of pain. Injury can occur during an automobile accident. One common pattern of injury occurs when the driver of a vehicle places one foot on the brake before a collision. The impact through the foot on the brake is transmitted to the pelvis causing a twisting motion to this side of the pelvis. This can injure the SI joint on that side resulting in pain. A similar mechanism occurs with a fall on one buttock. The force again causes a twisting motion to the pelvis and may injure the ligaments around the joint.

## Impact



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## Symptoms

### What does the condition feel like?

The most common symptoms from SI joint dysfunction are low back and buttock pain. The pain may affect one side or both SI joints. The pain can radiate down the leg all the way to the foot and may be confused with a herniated disc in the lumbar spine. The pain may radiate into the groin area. People often feel muscle spasm in one or both of their buttocks muscles.

Problems with the SI joint may make sitting difficult. Pain in one SI joint may cause a person to sit with that buttock tilted up. It is usually uncomfortable to sit flat in a chair.

## Diagnosis

### How do health care providers diagnose the problem?

Diagnosis begins with a complete history and physical exam. When you visit Peak Physical Therapy, we will ask questions about your symptoms and how the pain is affecting your daily activities. Our Physical Therapist will also want to know what positions or activities make your symptoms worse or better. We will ask you about any past injuries and about any other medical problems you or your family members might have.

Our Physical Therapist then will examine you by checking your posture, how you walk and where your pain is located. We check to see which back movements cause pain or other symptoms. Your lower extremity skin sensation, muscle strength, and reflexes will also be tested.

Some patients may be referred to a doctor for further diagnosis. Once your diagnostic examination is complete, the Physical Therapists at Peak Physical Therapy have treatment options that will help speed your recovery, so that you can more quickly return to your active lifestyle.

Peak Physical Therapy provides services for Physical Therapy in Newburgh and Orange County New York.

## **Our Treatment**

### **Non-surgical Rehabilitation**

Physical Therapy is often recommended for patients with SI joint dysfunction. At Peak Physical Therapy, patients with this condition are normally seen a few times each week for four to six weeks, although recovery time varies for each patient. In severe and chronic cases, patients may need a few additional weeks of care.

Our Physical Therapist may first advise you to rest your back by limiting your activities. The purpose of this is to help decrease inflammation and calm any muscle spasm.

After evaluating your condition, your Physical Therapist at Peak Physical Therapy can assign positions and exercises to ease your symptoms. Our Physical Therapist may design an exercise program to improve the strength and control of your back and abdominal muscles.

#### *If You Have Limited SI Joint Motion*

When movement of a joint is limited, the pain and symptoms of SI joint dysfunction may worsen. Getting more motion can give you the relief you need for daily activities. If you don't have full range of motion, our Physical Therapist has several ways to help you get more movement including joint manipulation, stretching, and exercises.

Our Physical Therapists commonly prescribe a set of stretches to improve flexibility in the muscles of the trunk, buttocks, and thighs. In addition to the treatment you receive at Peak Physical Therapy, you may be given ways to help your SI joint yourself if your pain returns. These exercises usually require that you position your hip and pelvis in a certain way and either stretch or contract and relax specific muscles. Follow the instructions of our Physical Therapist when doing these exercises at home. Active movement and stretching, as part of a home program, can also help restore movement and get you better faster.

#### *If You Have Excess SI Joint Mobility*

If the SI joint has too much mobility and problems keep coming back, you may need extra help to stabilize the SI joint. Some patients benefit from wearing a special brace called a *sacroiliac belt*. This belt wraps

around the hips to hold the sacroiliac joint tightly together, which may ease your pain. A belt like this can often ease pain enough to let you exercise comfortably.



You'll learn some exercises to help you build strength, muscle control, and endurance in the muscles that attach around the SI joint. Unfortunately, few muscles actually connect to both the sacrum and the pelvis. Key muscles to work are the gluteus maximus, as well as the abdominal and low back muscles.

### **Post-surgical Rehabilitation**

You will normally need to wait at least six weeks before beginning a rehabilitation program after having SI joint fusion surgery. Although recovery and rehabilitation varies for each patient, as a guideline you should plan on attending Physical Therapy sessions for six to eight weeks. Expect full recovery to take up to six months.

When you visit Peak Physical Therapy after SI joint surgery, our Physical Therapist may use treatments such as heat or ice, electrical stimulation, massage, and ultrasound to help calm your pain and muscle spasm. Then we will instruct you how to move safely with the least strain on the healing area.

As your Peak Physical Therapy rehabilitation program evolves, you'll begin doing more challenging exercises. Our goal is to safely improve your strength and function.

As Physical Therapy sessions come to an end, our Physical Therapist will help you get back to the activities you enjoy. Ideally, you'll be able to resume your normal activities. You may need guidance on which activities are safe or how to change the way you go about your activities.

When treatment is well under way, regular visits to Peak Physical Therapy will end. Although we will continue to be a resource, you'll be in charge of doing your exercises as part of an ongoing home program.

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## Physician Review

Doctors often begin by prescribing nonsurgical treatment for SI joint dysfunction. In some cases, doctors simply monitor the patient's condition to see if symptoms improve.

### *Medications*

Anti-inflammatory medications, such as ibuprofen and naproxen, are commonly used to treat the pain and inflammation in the joint. Acetaminophen (for example, Tylenol) can be used to treat the pain, but it will not control the inflammation. Doctors often recommend Physical Therapy for patients with SI joint dysfunction.

### *Laboratory Tests*

Your doctor may order laboratory tests if there is any question whether you might have an infection or some type of arthritis affecting multiple joints. You may also need to have blood drawn and give a urine sample to send to the laboratory for special tests.

### *Radiological Tests*

X-rays are commonly ordered of both the low back and pelvis. X-rays can give your doctor an idea about how much wear and tear has occurred in the SI joint. X-rays of the lumbar spine and hips are also helpful to rule out problems in these areas that may act and look like SI joint dysfunction.

Other radiological tests may be useful as well. The *magnetic resonance imaging* (MRI) scan can be used to look at the lumbar spine and pelvis in much more detail and to rule out other conditions in the area. The MRI scan uses magnetic waves rather than x-rays and shows a very detailed picture of the soft tissues of the body.

A *computed tomography* (CAT) scan may also be used to show a much more detailed look at the bone of the pelvis and the sacroiliac joint.

A *bone scan* is useful to see how the skeleton is reacting to any type of "stress," such as an injury, an infection, or inflammation from arthritis. This test involves injecting chemical "tracers" into your blood stream. The tracers then show up on special spine X-rays. The tracers collect in areas where the bone tissue is reacting strongly to some type of stress to the skeleton, such as arthritis and infection of the SI joint.

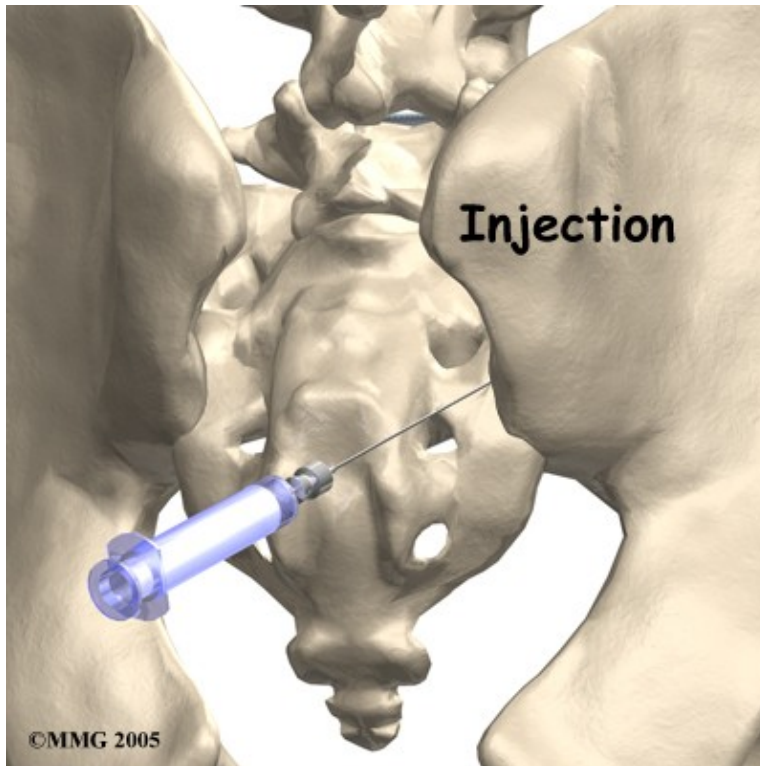
The most accurate way of determining whether the SI joint is causing pain is to perform a diagnostic injection of the joint. Because the joint is so deep, this must be done using X-ray guidance with a *fluoroscope* (a type of realtime X-ray). Once the doctor places a needle in the joint, an anesthetic is injected into the joint to numb the joint. If your pain goes away while the anesthetic is in the joint, then your doctor can be reasonably sure that the pain you are experiencing is coming from the SI joint.

### *Injections*

If conservative treatment is unsuccessful, injections may be suggested by your doctor. As described above, injections are used primarily to confirm that the pain is coming from the SI joint. A series of *cortisone* injections may be recommended to try to reduce the inflammation in and around the SI joint. Cortisone is a powerful anti-inflammatory medication that is commonly used to control pain from arthritis and inflammation. Other medications have been injected into the joint as well. A chemical called *hyaluronic*

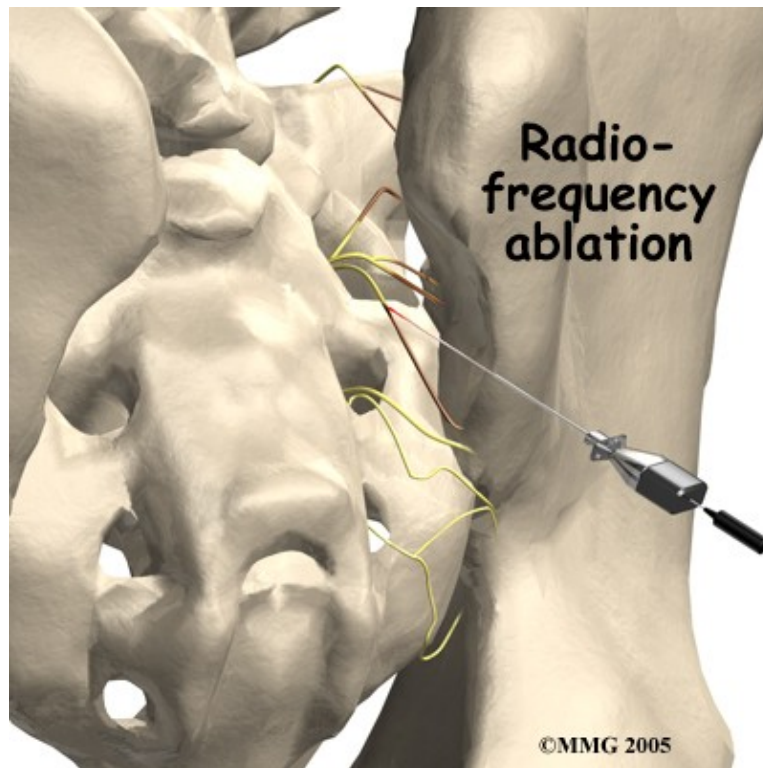


*acid* has been used for years to treat osteoarthritis of the knee. This chemical is thought to reduce pain due to its lubricating qualities and the fact that it nourishes the articular cartilage in the synovial joints. The true mechanism of action remains unknown, but it has been used with some success in the SI joint. All of these injections are temporary and are expected to last several months at the most.



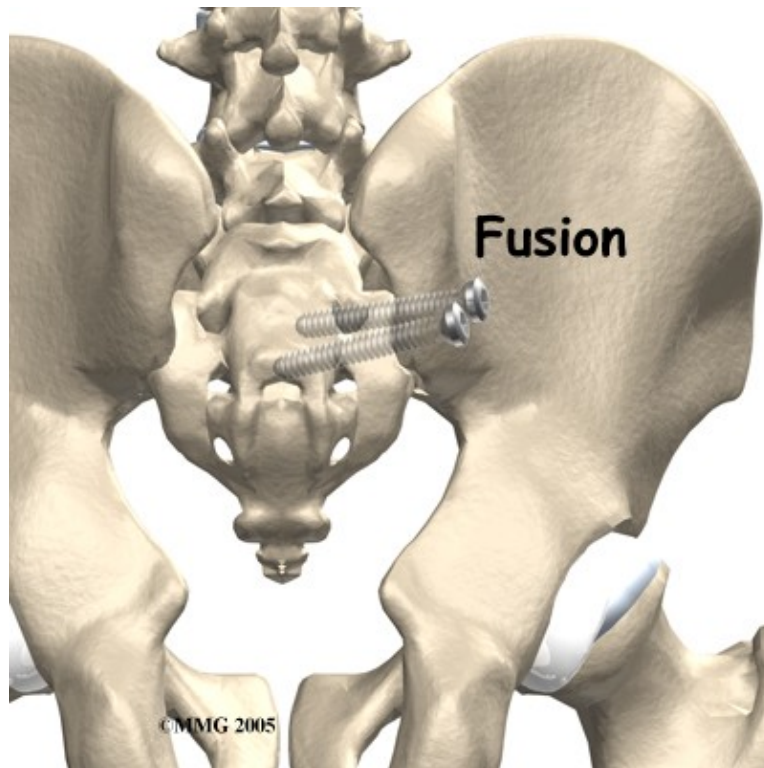
### *Radiofrequency Ablation*

Another procedure that has been somewhat successful is called *radiofrequency ablation*. After a diagnostic injection has confirmed that the pain is coming from the SI joint, the small nerves that provide sensation to the joint can be "burned" with a special needle called a *radiofrequency probe*. In theory, this destroys any sensation coming from the joint, making the joint essentially numb. This procedure is not always successful. It is temporary but can last for up to two years. It can be repeated if needed.



## Surgery

Surgery may be considered if other treatments don't work. Surgery consists of fusing the painful SI joint. A *fusion* is an operation where the articular cartilage is removed from both ends of the bones forming the joint. The two bones are held together with plates and screws until the two bones grow together, or fuse, into one bone. This stops the motion between the two bones and theoretically eliminates the pain from the joint.



This is a big operation and is not always successful at relieving the pain. The operation is not commonly performed unless the pain is debilitating. SI joint pain is seldom this severe.

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