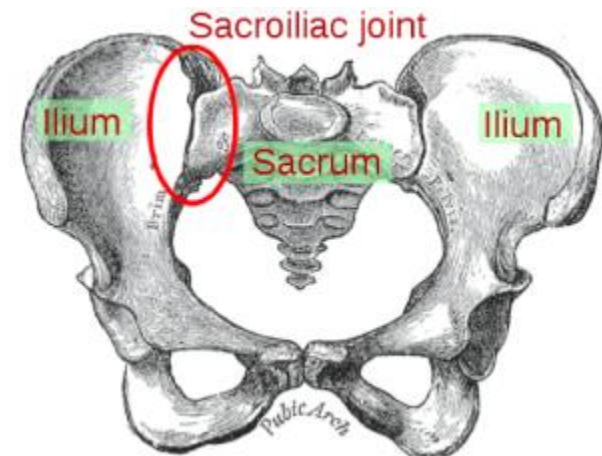


SI Joint Injection

What is the SI joint?

The term SI joint is short for the sacroiliac joint. Humans have two sacroiliac joints, and they are situated where the sacrum meets up with the pelvis on each side.

These joints contain cartilage just like the hip and the knee, but they see much less movement than a typical ball and socket joint like hip.



How much movement do the SI joints see?

Each sacroiliac joint sees between 2 and 6 mm of movement during activities, and the joint is susceptible to arthritis just like those in other areas of the body. The joints are not ball and socket or rotating.

How often does a sacroiliac joint cause back pain?

Between 12 and 25% of low back pain is actually coming from a problem in the sacroiliac joint ([Reference](#)). Therefore, it is important for a pain doctor to evaluate the sacroiliac joint as possible source of a patient's back pain.

Sacroiliac joint injections serve two purposes in pain management. The first purpose is diagnostic. If pain relief is achieved then the doctor can be fairly certain that the SI joint is the source of the person's pain. The second purpose of the sacroiliac joint injection is for therapeutic pain relief.

How are SI joint injections performed?

The SI joint is fairly irregular and jagged in appearance. Therefore, it is not a good idea to perform these injections without fluoroscopic guidance. Fluoroscopy is a real-time form of x-ray and can truly help with accuracy.

These injections are performed as an outpatient. The pain management doctor will numb up the skin area and the soft tissues down to the joint. When a joint has significant arthritis, it may be difficult to gain entry into it. This is why using different angles on the fluoroscopy can be so helpful. Once entry is gained in the joint, the pain doctor will typically inject a slight amount of contrast to ensure accurate placement. At that point, numbing medicine is placed into the joint along with steroid medication.

Along with an SI joint injection, there is a newer type of pain relief injection around the SI joint called a lateral branch block. The SI joints, just like other joints in the body, have a nerve supply that brings it sensation. These tiny nerve endings are called the lateral



The yellow areas represent the lateral branch areas that are heated up and deadened for pain relief.

branches and a lateral branch block involves placing numbing medicine around outside of the joint where these nerves come in.

If these lateral branch block injections work well and then the pain relief wears off after a few weeks to a few months, the newest type of pain relief procedure for the SI joint is called a radiofrequency ablation (SI Joint Neurotomy). This involves heating up the area around the joint and deadening the lateral branches for quite a few months of pain relief.

How well do SI joint injections work?

Sacroiliac joint injections with steroid medication work very well. They may provide a few months of pain relief in a row, and then they can be easily repeated. There have not been any large studies to date performed on the effectiveness, but smaller studies have shown approximately 75% of patients get excellent results with these injections.

Lateral branch blocks provide the same effectiveness, and if the radiofrequency ablation (SI joint neurotomy) is performed, then new studies are showing that over 50% of patients obtain excellent pain relief for upwards of six months. (PM R. 2010)

What are the risks of these procedures?

SI joint injections are very low risk. There's a small risk of infection, bleeding or nerve injury. There's also a chance the steroid injected can cause a transient increase in blood sugars or water retention and weight gain that is usually transient.

The biggest risk with these injections that they may not work for pain relief. Because steroid medication is used for the procedures, they should only be repeated every few months.

All in all, SI joint injections represent an excellent method of pain relief in the nonoperative regimen of sacroiliitis pain relief. Along with medication management, physical therapy, chiropractic treatment and TENS units, sacroiliac joint injections or radiofrequency ablation represent an excellent low-risk method of pain relief at pain clinics.