

SACROILIAC JOINT PATIENT EDUCATION

Introduction

Pain arising from the sacroiliac joint (SIJ) is one of the potential causes of axial low back pain. A quarter of low back pain could be originating from the SIJ. SIJ pain can be from trauma, pregnancy, repetitive stress, sports, and following spinal surgery. This article hopes to provide a short review of sacroiliac joint pain and management options.

Etiology

The potential causes of sacroiliac joint pain can either be traumatic or atraumatic.

Repetitive shear and torsional forces may arise from various sports like figure skating, golf, and bowling. Pregnancy causes sacroiliac joint pain from weight gain, increased lumbar lordosis, hormone-induced laxity in the third trimester, and the trauma associated with delivery. Rear-end collisions cause sacroiliac joint injury from an indirect torsional strain on the joint. Previous **lumbar spinal surgery** shows increased stresses that occur at the sacroiliac joint following fusion surgery. Studies show a two-fold increase in sacroiliac joint degeneration following lumbar fusion as compared to controls. **Anything that alters walking mechanics** can cause overuse of the sacroiliac joint such as hip or knee replacements, lumbar spine fusions, asymmetric muscle strength, leg length discrepancies, or pelvic ring fractures.

Innervation

Anterior innervation of the sacroiliac joint is from the ventral rami of the L5 to S2 nerve roots. For this reason, an L5, S1, or S2 “pinched nerve” can mimic sacroiliac joint pain and vice versa.

History and Physical

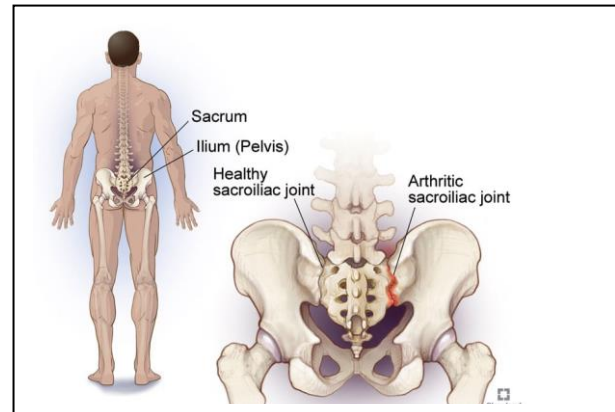
Sacroiliac joint pain can arise from a variety of clinical conditions. A thorough history of clinical symptoms and past medical conditions should be a routine part of the comprehensive evaluation of a patient presenting with SI joint disorders.

Patients usually complain of **deep-seated pain, which extends down the posterior thigh and up to the knee.**

Pain can frequently mimic and be misdiagnosed as “sciatica” or radicular pain. Patients are also likely to complain of pain while sitting down, lying on the ipsilateral side or when climbing stairs. Pain from the sacroiliac joint usually follows an inciting event and does not arise insidiously.

Patients with isolated SI joint dysfunction often localize their pain to the middle of the buttock. Among these other patterns included pain down the posterior/lateral thigh (50%), pain distal to the knee (28%), and pain in the foot (14%).

Sacroiliac joint pain has a very similar presentation to lumbar/gluteal myofascial pain or facet joint arthritis. A graphic comparison can be seen below.



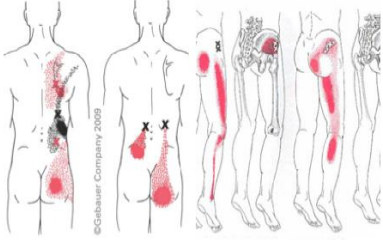

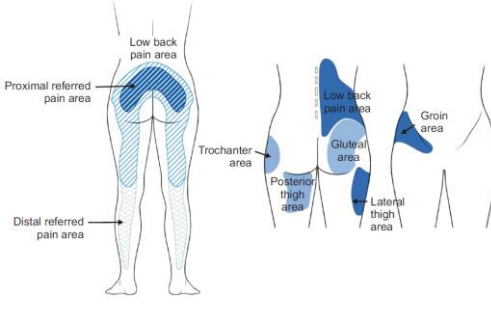
Treatment / Management

The initial step in the treatment of sacroiliac joint syndrome is similar to the management of any axial low back pain. This would be an exercise orientated spinal stabilization/stretching program. Physical therapy, osteopathic manual therapy, kinesiotaping and manipulation have shown to have significant benefits, especially manipulation. Interventional treatments are reserved for those that fail conservative therapy.

Interventional treatments include the following:

1. Intraarticular and extraarticular injections

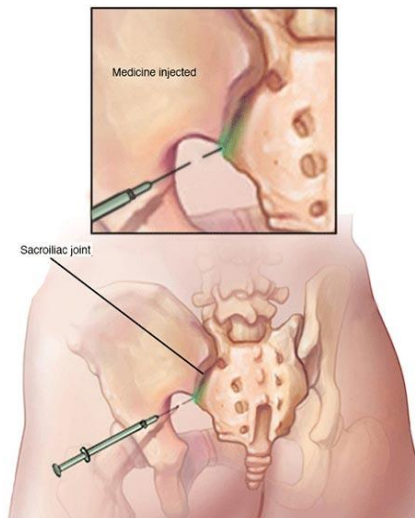
2. Radiofrequency denervation of the lateral branch nerves

Overlapping Patterns of Axial Back Pain		
Muscular/Myofascial Pain	Sacroiliac Joint Pain	Facet Joint Pain
<p>Myofascial Pain Referral Patterns</p>  <p>©Gibauer Company 2009</p>		

Sacroiliac Joint Injection

SIJ pain is easily confused with back pain from the spine. The gold standard of diagnosing and at the same time, treating the pain, is to perform a diagnostic and therapeutic injection. Image guidance is used to ensure medication is placed safely within the joint. The results are determined as follows as an SIJ injection:

- 1) **The pain goes away for 3-12 hours but then returns:**
 - a. This means the joint is the correct source of your pain but the degenerative changes/arthritis is too advanced to be treated by the medication and the medication cannot reduce enough inflammation within the joint
- 2) **The pain goes away for 3-12 hours and then this pain relief is maintained:**
 - a. The joint is the correct source of pain and the medication is strong enough to provide long term relief and reduce inflammation causing the pain
- 3) **No pain relief occurs either immediate (3-12 hours) or prolonged (more than 24 hours):**
 - a. The joint is not the site of pain and can now be eliminated and help guide the provider in finding the source of you



References

1. Cohen SP. Sacroiliac joint pain: a comprehensive review of anatomy, diagnosis, and treatment. *Anesth Analg.* 2005 Nov;101(5):1440-1453. [\[PubMed\]](#)
2. Chuang CW, Hung SK, Pan PT, Kao MC. Diagnosis and interventional pain management options for sacroiliac joint pain. *Ci Ji Yi Xue Za Zhi.* 2019 Oct-Dec;31(4):207-210. [\[PMC free article\]](#) [\[PubMed\]](#)