

Diagnostic Algorithm for SI Joint Pain

CHIEF COMPLAINTS

- ⊕ Low back pain (below L5)
- ⊕ Pelvis/buttock pain
- ⊕ Hip/groin/thigh pain
- ⊕ Sensation of lower extremity: pain, numbness, tingling, weakness
- ⊕ Sitting problems
- ⊕ Pain with position changes or transitional motions (i.e., sit to stand, supine to sit)
- ⊕ Poor sleep habits due to pain
- ⊕ Feeling of leg giving way or buckling

HISTORY

- ⊕ New onset or chronic low back pain +/- trauma
- ⊕ Previous lumbar surgery
- ⊕ Post-partum pain
- ⊕ Description of pain
- ⊕ Onset and duration of symptoms
- ⊕ What makes it better/worse
- ⊕ Treatment to-date: PT, meds, spine injections, other

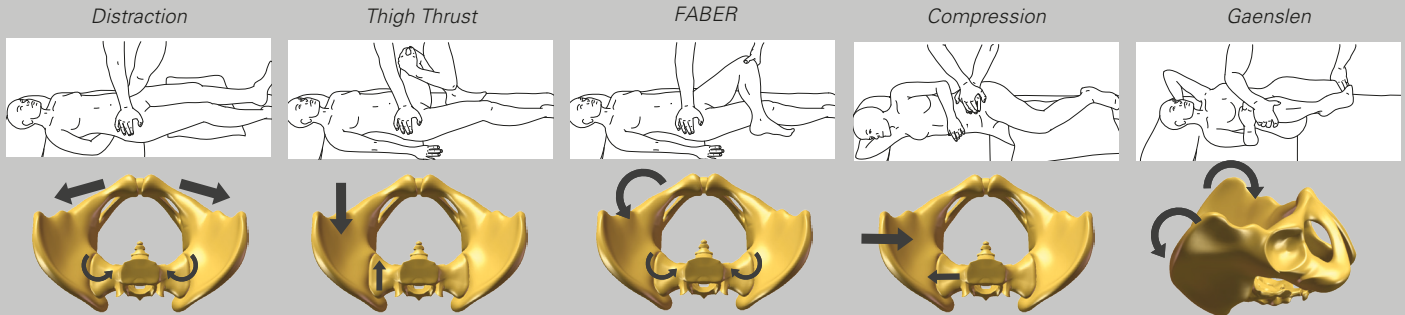
SPINE EXAM

HIP EXAM

SI JOINT EXAM

Point to pain while standing (Fortin finger test) / Tenderness over SIJ sulcus / Posterior SIJ tender to palpation / Patient not sitting on affected side. Single leg stance test may induce pain on supporting side.

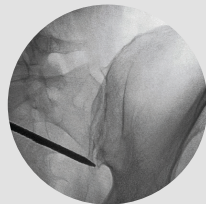
SIJ PROVOCATIVE TESTS



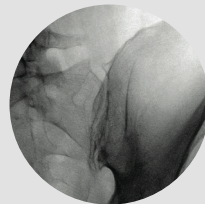
If pain inferior to L5, negative neurological exam, and minimum of 3 positive provocative tests (see NOTE), the SIJ is likely a pain generator and image-guided, diagnostic SIJ injection(s) should be ordered.¹ Start with the *Distraction Test*, which has the highest single positive predictive value.²

DIAGNOSTIC SIJ INJECTION³

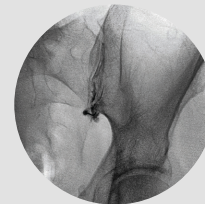
- ⊕ Posterior & inferior approach
- ⊕ 22 gauge stylet needle
- ⊕ 0.25ml contrast medium
- ⊕ 1.25ml local anesthetic



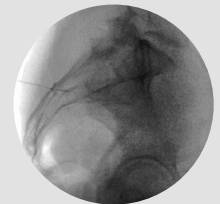
Inferior SIJ target



Needle in SIJ pre-contrast



Needle in SIJ



Needle in SIJ

SIGNIFICANT POSITIVE CLINICAL RESPONSE?

Note: consider repeating to rule out false positive results

NO

YES

OTHER PAIN GENERATORS POSSIBLE

CONTINUE WORKUP

SI JOINT IS PAIN GENERATOR

Non-surgical Options

- Medication(s)
- Physical Therapy
- SI Joint Injections
- Radiofrequency Denervation

Minimally invasive SI joint fusion (iFuse Implant System®)

¹ Szadek, K.M. et al., 2009. Diagnostic validity of criteria for sacroiliac joint pain: a systematic review. *Journal of Pain*, 10 (4), pp.354-368.

² Laslett, M. et al., 2005. Diagnosis of sacroiliac joint pain: validity of individual provocation tests and composites of tests. *Manual Therapy*, 10(3), pp.207-218.

³ Fluoroscopically-guided injection photos courtesy of Joseph Schini, MD.