Diagnostic Algorithm for Sacroiliac Joint Pain

### Patient Symptoms

#### Complaints
- Pain when sitting/lying on affected side
- Dull ache below L5, often unilateral
- Buttock pain, may radiate to thigh/groin
- Pain worse climbing stairs or hills

#### History/Risk Factors
- Fall, misstep, lifting, twisting, MVA
- Previous lumbar fusion
- Anatomic variations (e.g. leg length inequality)
- Female, age 62, postpartum

### SI Joint Dysfunction Suspected

#### Physical Examination
- General back pain exam to rule out other diagnoses
- Sacral sulcus tenderness on palpation
- Patient points repeatedly near the PSIS (Fortin Finger Test)

#### Provocative Tests
- Tests: Compression, Thigh Thrust, FABER, Distraction and Gaenslen's. Valid if 3 or more tests are positive. At least one test should be compression or thigh thrust.

### Checkpoint

#### Rule-outs and Red Flags
- Facet joint arthropathy
- Hip joint dysfunction
- Sciatica, disc disruption, stenosis
- Arthritis, spondylarthropathies
- Fractures (e.g. coccyx, insufficiency fractures)
- Bertolotti's syndrome
- Infections and tumors
- Enteric conditions (e.g. appendix, IBS)

### SI Joint Dysfunction Presumed

#### Diagnostic SIJ Block
- Fluoroscopic-guided, intra-articular injection
- Low-volume anesthetic (e.g. 2ml) with contrast
- Positive result is ≥75% pain reduction
- Repeat injection for confirmation

### SI Joint Dysfunction Confirmed

#### Conservative Management (>6 months)
- Medications, braces, SI belts
- Orthotics (e.g. for leg inequality)
- Physical therapy, manual manipulation
- Therapeutic SI injections

#### Disabling Pain
- With SI Joint Dysfunction confirmed, and at least 6 months conservative therapy, the patient may be a candidate for SI joint fusion surgery using Simmetry®.

#### Surgical Arthrodesis
- The Simmetry® system allows for true arthrodesis of the sacroiliac joint.*
Provocative Tests for Sacroiliac Joint Pain

The following provocative tests have shown good diagnostic validity for sacroiliac pain if three or more tests are positive. At least one test should be Compression or Thigh Thrust. The tests are considered positive if they reproduce the patient’s same pain.

Compression Test
This maneuver applies compression across the SI joints.
1. Patient is lying on their side with hips and knees flexed.
2. Apply a downward force to the patient’s iliac crest.

Thigh Thrust Test
This maneuver applies a sliding/shearing to the SI joint.
1. Patient is supine.
2. Consider placing a hand under the sacrum for support.
3. Apply a downward force to a vertically aligned femur.

FABER Test (Flexion Abduction External Rotation)
This maneuver applies a tension to the anterior aspects of the SI joints.
1. Patient is supine.
2. Place the patient's foot of the affected side on the opposite knee.
3. Place a hand on the opposite iliac crest.
4. Apply a downward abduction force to the patient’s knee.

Distraction Test
This maneuver applies a tension to the anterior aspects of the SI joints.
1. Patient is supine.
2. Apply a cross-arm posteriorly directed force simultaneously to both ASIS.

Gaenslen's Test
This maneuver applies a counter-rotation/torsion to the SI joints.
1. Patient is supine.
2. One leg hangs off the exam table; the other is bent at the knee.
3. Apply an extension force to the hanging leg while simultaneously applying a flexion force to the bent leg.


*Rx only. Please review the Instructions for Use for indications, contraindications, warnings and precautions.

This material is provided as an educational resource. Refer to standard diagnostic publications for further information.

Fluoroscopically-guided SIJ injection image courtesy of Ali Araghi, DO.

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