Cohere Medical Policy - Sacroiliac Joint Fusion

Clinical Guidelines for Medical Necessity Review

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Important Notices

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Other Notices:

Guideline Information:

Specialty Area: Disorders of the Musculoskeletal System
Guideline Name: Cohere Medical Policy - Sacroiliac Joint Fusion

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Type: [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17 yo)

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Service: Sacroiliac Joint Fusion

Recommended Clinical Approach

Sacroiliac (SI) joint fusion is used to treat trauma, infection, pain, spinal instability, or cancer. The procedure involves joining the sacrum and ilium bones to stabilize the joint and can be performed as a minimally invasive or open procedure. SI joint fusion may be appropriate for patients with low back pain (LBP) originating from the SI joint that does not improve with non-operative treatment. Recovery time is typically a few weeks, and many patients return to normal activities.

Medical Necessity Criteria

Indications

➔ A **sacroiliac (SI) joint fusion** is considered appropriate if **ANY** of the following is **TRUE**:

- ◆ The patient has sacroiliac pain due to a severe traumatic injury, and an external fixator trial provided symptom relief; **OR**
- ◆ The patient requires a sacroiliac joint fusion, and **ALL** of the following are **TRUE**:
  - No nicotine product use for 6 weeks with a negative lab test within 30 days (unless surgery is urgently required for progressive neurologic deficit or traumatic fracture); **AND**
  - **ALL** of the following symptoms[1]:
    - Nonradicular, typically unilateral, pain that is maximal below the L5 vertebrae localized over the posterior SI joint, and consistent with SI joint pain; **AND**
    - Absence of generalized pain behavior (e.g., somatoform disorder) or generalized pain disorders (e.g., fibromyalgia); **AND**
  - **ALL** of the following physical exam findings:
    - Positive response to **AT LEAST THREE** of the following provocative tests (unless medically contraindicated, [e.g., acute pelvic ring disruption])[1]:

        - Distraction test; **OR**
        - Compression test; **OR**
        - Thigh thrust test; **OR**
        - Gaenslen's test; **OR**
        - FABER maneuver/Patrick's sign; **OR**
        - Posterior provocation test; **AND**
    - **ANY** of the following[1]:
        - Localized tenderness with palpation over the sacral sulcus (Fortin's point, at the insertion of the long dorsal ligament inferior to the posterior superior iliac spine or posterior superior iliac spine [PSIS]); **OR**
        - Absence of tenderness elsewhere (e.g., greater trochanter, lumbar spine, coccyx) that explains the symptoms; **AND**
- **ALL** of the following imaging studies[1]:
    - Radiographs, magnetic resonance imaging (MRI), or computed tomography (CT) of the SI joint that exclude the presence of **ANY** of the following:
        - Destructive lesions (e.g., tumor, infection); **OR**
        - Fracture; **OR**
        - Traumatic SI joint instability; **OR**
        - Inflammatory arthropathy that would not be properly addressed by percutaneous SI joint fusion; **AND**
    - Anteroposterior (AP) plain radiograph of the pelvis to rule out concomitant hip pathology; **AND**
    - CT or MRI of the lumbar spine to rule out neural compression or other degenerative conditions that can be causing lower back or buttock pain; **AND**
- Failure of conservative management for greater than 6 months, including **AT LEAST TWO** of the following[1]:
    - Anti-inflammatory medications, analgesics, or prescription medications (e.g., oral steroids, narcotics, neuropathic pain medications) if not contraindicated; **OR**
    - Physical therapy or physician-directed home exercise program; **OR**

    - Image-guided SI joint injection resulting in greater than or equal to 75% reduction of pain for the expected duration of the anesthetic used on 2 separate occasions[1]; **AND**
- **ANY** of the following:
    - **Percutaneous minimally invasive SI joint fusion** as indicated by **ALL** of the following:
        - **ALL** of the following:
            - Pain that has lasted at least 6 months due to sacroiliac joint dysfunction; **AND**
            - Other sources of pain have been excluded (e.g., lumbar disc degeneration, lumbar disc herniation, lumbar spondylolisthesis, lumbar spinal stenosis, lumbar facet degeneration, and lumbar vertebral body fracture); **AND**
        - A baseline Numeric Rating Scale (NRS) score of at least 5; **AND**
        - Disruption of functional activities as indicated by **ALL** of the following scores:
            - 5 or greater on the Visual Analogue Scale (VAS); **OR**
            - 30 or greater on the Oswestry Disability Index (ODI); **OR**
    - **Open SI joint fusion** as indicated by **ANY** of the following:
        - The patient requires a sacrectomy or partial sacrectomy (e.g., the excision of tumors involving the sacrum); **OR**
        - The procedure is being performed in addition to other medical treatment of SI joint infection or sepsis (e.g., osteomyelitis, pyogenic sacroiliitis); **OR**
        - Severe traumatic injuries due to pelvic ring disruption (e.g., pelvic ring fractures, acetabular fracture, spinopelvic dissociation); **OR**
        - When multisegment spinal constructs are required (e.g., correction of deformity in scoliosis or kyphosis surgery) that extend to the

ilium and a lumbar spine fusion procedure is being performed for deformity; **OR**
- ◆ Pseudoarthrosis of the SI joint; **OR**
- ◆ Sacroiliac joint infection; **OR**
- ◆ Tumor involving the sacrum; **OR**

- ◆ The patient requires a revision or replacement SI joint fusion due to **ANY** of the following:
  - Symptomatic pseudoarthrosis (non-union)[2]; **OR**
  - Implant/device malposition that is symptomatic with impingement of foramen by implant/device; **OR**
  - Secondary Infection related to the implant/device; **OR**
  - The implant is damaged (e.g., fracture, breakage, loosening).

Non-Indications

- ➔ A **sacroiliac (SI) joint fusion** is not considered appropriate if **ANY** of the following is **TRUE**:
  - ◆ Presence of **ANY** of the following[1]:
    - Systemic arthropathy (e.g., ankylosing spondylitis or rheumatoid arthritis); **OR**
    - Generalized pain behavior (e.g., somatoform disorder); **OR**
    - Generalized pain disorder (e.g., fibromyalgia); **OR**
    - Neural compression was found on imaging, and the symptoms are supported by another source of pain; **OR**
  - ◆ Percutaneous procedure planned when **ANY** of the following are present:
    - Infection; **OR**
    - Tumor; **OR**
    - Acute traumatic instability; **OR**
  - ◆ Current laboratory-confirmed nicotine use (unless surgery is urgently required for progressive neurologic deficit or traumatic fracture); **OR**
  - ◆ Use of an intra-articular device that does not traverse the SI joint (e.g., PainTEQ's LinQ SI Joint Stabilization procedure); **OR**
  - ◆ SI joint fusion with single screw fixation (i.e. Bedrock Granite screws).

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
0809T	Arthrodesis, sacroiliac joint, percutaneous or minimally invasive (indirect visualization), with image guidance, placement of transfixing device(s) and intraarticular implant(s), including allograft or synthetic device(s)
20999	Unlisted procedure, musculoskeletal system, general
22848	Pelvic fixation (attachment of caudal end of instrumentation to pelvic bony structures) other than sacrum (List separately in addition to code for primary procedure)
27278	Arthrodesis, sacroiliac joint, percutaneous, with image guidance, including placement of intra-articular implant(s) (e.g. bone allograft[s], synthetic device[s]), without placement of transfixation device.
27279	Arthrodesis, sacroiliac joint, percutaneous or minimally invasive (indirect visualization), with image guidance, includes obtaining bone graft when performed, and placement of transfixing device
27280	Arthrodesis, sacroiliac joint, open, includes obtaining bone graft, including instrumentation, when performed

Medical Evidence

Dat et al. (2024) conducted a retrospective cohort study based on four prospective clinical trials to analyze patient-reported outcomes related to body mass index (BMI) following a sacroiliac (SI) joint fusion. A total of 474 patients aged 21-70 were included; all had a diagnosis of unilateral or bilateral sacroiliac (SI) joint pain caused by degenerative sacroiliitis or SI joint disruption. Exclusion criteria included "other back-related conditions with moderate-to-severe pain, other sacroiliac pathologies (e.g., autoimmune sacroiliitis, tumor, infection, fracture), known osteoporosis, chronic rheumatologic disease, or other conditions that could impair full study participation." Among the 377 patients in the SI joint fusion group, the mean BMI was 29.4 compared to the 97 patients who received non-surgical management was 29.0. In addition to a lower BMI, patients who received an SI joint infusion reported an improvement in pain scores (baseline 80.0, 29.7 at 6-month follow-up, 29.3 at 12 months, and 26.3 at 24 months).[3]

Shamrock et al. (2019) performed a systematic review of the safety profile of percutaneous minimally invasive SI joint fusion. Of the 720 patients, 99 (13.75%) underwent bilateral SI joint fusion, including 819 fused SI joints. The revision rate was low (2.56%), and surgical wound infection and drainage were a complication in 11% of patients.[4]

Polly et al. (2016) report the two-year outcomes from a randomized control trial (RCT) of 148 patients who received minimally invasive SI joint fusion or non-surgical management for SI joint dysfunction. At two-year follow-up, those assigned to the fusion group reported clinical improvement (83%) or substantial benefit (82.0%) of the visual analog score (VAS). Conversely, these percentages were lower among non-surgical treatment patients (68.2% and 65.9%, respectively). Adverse events were minimal: three patients in the fusion group required revision surgery before a two-year follow-up.[5]

Zaidi et al. (2015) reviewed the surgical and clinical efficacy of SI joint fusion. A total of 430 patients were identified in five consecutive case series, eight retrospective studies, and three prospective cohort studies. Open surgery was performed in 131 patients, and 299 required minimally invasive surgery (MIS)

for SI joint fusion. Follow-up was 60 months for open surgery and 21 months for MIS. The most common indication for the 257 patients who underwent surgical treatment was SI joint degeneration/arthrosis (59.8%), SI joint dysfunction (18.4%), post-partum instability (7.2%), post-traumatic (6.5%), idiopathic (5.8%), pathological fractures (1.4%), and HLA-B27+/ rheumatoid arthritis (0.9%). Overall, rates of satisfaction were excellent, with noted improvements in pain, function, and quality of life.[6]

The North American Spine Society (NASS) published a coverage policy recommendation for *Minimally Invasive Sacroiliac Joint Fusion,* which supports coverage for treating SI joint pain for low back pain. Studies show that the procedure is relatively safe–estimated blood loss is low, as are the rates of infection, complications, and the need for revision surgery.[1] The International Society for the Advancement of Spine Surgery (ISASS) also published a similar policy statement (and 2016 update) for *Minimally Invasive Sacroiliac Joint Fusion,* which states support for the procedure.[6-7]

References

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Clinical Guideline Revision History/Information

Original Date: December 15, 2023		
Review History		
Version 2	4/26/2024	
Version 3	12/19/2024	• Annual review. • Changes to medical necessity criteria for clarification, no changes to procedure codes. Nicotine and conservative therapy criteria were enhanced. • Reviewed boolean logic. • Literature review - Medical Evidence section updated (including references).