

# Musculoskeletal Program Clinical Appropriateness Guidelines

# Sacroiliac Joint Fusion

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# Description and Application of the Guidelines

AIM's Clinical Appropriateness Guidelines (hereinafter "AIM's Clinical Appropriateness Guidelines" or the "Guidelines") are designed to assist providers in making the most appropriate treatment decision for a specific clinical condition for an individual. As used by AIM, the Guidelines establish objective and evidence-based, where possible, criteria for medical necessity determinations. In the process, multiple functions are accomplished:

- To establish criteria for when services are medically necessary
- To assist the practitioner as an educational tool
- To encourage standardization of medical practice patterns
- To curtail the performance of inappropriate and/or duplicate services
- To advocate for patient safety concerns
- To enhance the quality of healthcare
- To promote the most efficient and cost-effective use of services

AIM's guideline development process complies with applicable accreditation standards, including the requirement that the Guidelines be developed with involvement from appropriate providers with current clinical expertise relevant to the Guidelines under review and be based on the most up to date clinical principles and best practices. Relevant citations are included in the "References" section attached to each Guideline. AIM reviews all of its Guidelines at least annually.

AIM makes its Guidelines publicly available on its website twenty-four hours a day, seven days a week. Copies of the AIM's Clinical Appropriateness Guidelines are also available upon oral or written request. Although the Guidelines are publicly-available, AIM considers the Guidelines to be important, proprietary information of AIM, which cannot be sold, assigned, leased, licensed, reproduced or distributed without the written consent of AIM.

AIM applies objective and evidence-based criteria and takes individual circumstances and the local delivery system into account when determining the medical appropriateness of health care services. The AIM Guidelines are just guidelines for the provision of specialty health services. These criteria are designed to guide both providers and reviewers to the most appropriate services based on a patient's unique circumstances. In all cases, clinical judgment consistent with the standards of good medical practice should be used when applying the Guidelines. Guideline determinations are made based on the information provided at the time of the request. It is expected that medical necessity decisions may change as new information is provided or based on unique aspects of the patient's condition. The treating clinician has final authority and responsibility for treatment decisions regarding the care of the patient and for justifying and demonstrating the existence of medical necessity for the requested service. The Guidelines are not a substitute for the experience and judgment of a physician or other health care professionals. Any clinician seeking to apply or consult the Guidelines is expected to use independent medical judgment in the context of individual clinical circumstances to determine any patient's care or treatment.

The Guidelines do not address coverage, benefit or other plan specific issues. Applicable federal and state coverage mandates take precedence over these clinical guidelines. If requested by a health plan, AIM will review requests based on health plan medical policy/guidelines in lieu of the AIM's Guidelines.

The Guidelines may also be used by the health plan or by AIM for purposes of provider education, or to review the medical necessity of services by any provider who has been notified of the need for medical necessity review, due to billing practices or claims that are not consistent with other providers in terms of frequency or some other manner.

# Sacroiliac Joint Fusion (Percutaneous/Minimally invasive techniques)

## Description

Low back pain is a global health issue and one of the top 3 causes of health degradation in highly developed countries. Goldwaith and Osgood first discussed the possibility that sacroiliac (SI) joint injury could cause low back pain as early as 1905. Since that time, there have been numerous studies looking at the prevalence of SI joint syndrome in persons with back pain, and the results of these vary widely. Recent studies have estimated that 15%–30% of chronic low back pain is of sacroiliac origin.

Identifying the SI joint as the pain generator is challenging due to the multifactorial nature of low back pain. Once confirmed, management may include physical or manual therapy with a focus on core and pelvic stability, external orthotics, periodic intra-articular injections, anti-inflammatory medications, and life style changes including smoking cessation and weight loss.

Sacroiliac joint fusion techniques were developed based on the assumption that movement across the joint was the primary source of pain. These techniques are not new, but their success has been limited by the extensive nature of the open fusion procedure and a lack of consistent outcome data. However, recent advances in minimally invasive techniques have shown some promise and are addressed here.

This document addresses SI joint fusion when performed as an **elective, non-emergent** procedure and not as part of the care of a congenital condition, acute or traumatic event such as fracture (excluding fracture of implant and periprosthetic fracture), malignancy or infection.

## General Requirements

Documentation supporting medical necessity should be submitted at the time of the request and must include the following information:

- Symptom duration and severity
- Specific functional limitations related to symptoms
- Type and duration of all therapeutic measures provided. If conservative management is not appropriate, the reason must be clearly documented.

**Conservative management** provided by a health professional(s) for this condition(s) should include a combination of strategies to reduce inflammation, alleviate pain, and improve function, including all of the following:

- Activity modification
- Physician-supervised therapeutic exercise program (home exercise program), physical therapy, or manual therapy
- Prescription strength anti-inflammatory medications and analgesics
- Corticosteroid injection
- Sacroiliac support belt or other appropriate bracing

Documentation of compliance with a plan of therapy that includes elements from these areas is required where conservative management is appropriate.

**Reporting of symptom severity** – Severity of pain and its impact on function are key factors in determining the need for intervention. For purposes of this guideline, significant pain refers to pain rated 5 or greater on the VAS scale and is associated with functional impairment involving the inability to perform at least two (2) age-appropriate daily activities.

**Tobacco Cessation** – Adherence to a tobacco-cessation program resulting in abstinence from tobacco for at least six (6) weeks prior to surgery is recommended. Documentation of nicotine-free status by laboratory testing (e.g., cotinine level or carboxyhemoglobin) is recommended. After six (6) weeks of tobacco cessation, labs should be performed with ample time afforded to submit this confirmation and complete the prior authorization process.

**Diabetes** – It is recommended that a patient with history of diabetes maintain hemoglobin A1C 8% or less prior to any joint replacement surgery.

**Body Mass Index (BMI)** – It is recommended that any patient with a BMI equal to or greater than 40 should attempt weight reduction prior to surgery.

## Indications and Criteria

**Percutaneous/Minimally Invasive SI Joint Fusion with the iFuse system (titanium triangular implant)** may be considered medically necessary when all of the following criteria are met:

- Persistent pain greater than six (6) months' duration that interferes with functional activities as documented by all of the following:
  - Pain score (VAS) of 5 or greater
  - ODI 30 or greater
- Failure of at least six (6) months of conservative management

- Confirmation of the SI joint as a pain generator as demonstrated by all of the following:
  - Pain pattern consistent with SI joint pain (typically unilateral pain caudal to L5 vertebrae, localized over posterior SI joint)
  - Positive finger Fortin test (localized tenderness with palpation over the sacral sulcus)
  - Absence of tenderness of similar severity elsewhere in the pelvic region (e.g., greater trochanter, lumbar spine, coccyx)
  - Postive response from at least three (3) of the following provocative tests:
    - Long ligament test
    - Faber’s test/Patrick’s sign
    - Active straight leg raise
    - Compression test
    - Distraction test
    - Thigh thrust test (not recommended for those who are pregnant or those with connective tissue disorder)
    - Gaenslen’s test
  - Other sources of pain have been excluded as an etiology
- Diagnostic imaging studies that include all of the following:
  - Imaging (plain radiographs and a CT) or MRI of the SI joint that excludes the presence of destructive lesions (eg, tumor, infection) or inflammatory arthropathy that would not properly be addressed by percutaneous SI joint fusion
  - Imaging of pelvis (AP plain radiograph) to rule out concomitant hip pathology
  - Imaging of lumbar spine (CT or MRI) to rule out neural compression or other degenerative condition that can be causing low back or buttock pain
  - Imaging of SI joint that indicates evidence of injury and/or degeneration
- Diagnostic confirmation of the SI joint as the pain generator demonstrated by at least 75% reduction of pain for the expected duration of the anesthetic used following an image-guided, contrast-enhanced intra-articular SI joint injection on two (2) separate occasions

## Exclusions

Indications other than those addressed in this guideline are considered **not medically necessary**, including but not limited to the following:

- Presence of infection, tumor, or fracture
- Presence of acute, traumatic instability of the SI joint
- Presence of neural compression as seen on imaging that correlates with symptoms or other more likely source of pain
- Presence of generalized pain behavior (eg, somatoform disorder) or generalized pain disorders (eg, fibromyalgia)
- Presence of ankylosing spondylitis or rheumatoid arthritis

## Selected References

1. Goldwaith, JH, Osgood, RB. A consideration of the pelvic articulations from an anatomical pathological and clinical standpoint. Boston Med Surg J. 1905;152(21):593-601.
2. Lingutla, KK, Pollock, R, Ahuja, S. Sacroiliac joint fusion for low back pain: a systematic review and meta-analysis. Eur Spine J. 2016;25(6):1924-31.
3. North American Spine Society, NASS coverage policy recommendations for percutaneous sacroiliac joint fusion (2015). Accessed November 20, 2017.
4. Polly, DW, Swofford, J, Whang, PG, et al. Two-Year Outcomes from a Randomized Controlled Trial of Minimally Invasive Sacroiliac Joint Fusion vs. Non-Surgical Management for Sacroiliac Joint Dysfunction. International journal of spine surgery. 2016;10:28.
5. Stureson, B, Kools, D, Pflugmacher, R, et al. Six-month outcomes from a randomized controlled trial of minimally invasive SI joint fusion with triangular titanium implants vs conservative management. Eur Spine J. 2017;26(3):708-19.
6. Zaidi, HA, Montoure, AJ, Dickman, CA. Surgical and clinical efficacy of sacroiliac joint fusion: a systematic review of the literature. J Neurosurg Spine. 2015;23(1):59-66.

## CPT Codes

27279 Arthrodesis, sacroiliac joint, percutaneous or minimally invasive (indirect visualization), with image guidance, includes obtaining bone graft when performed, and placement of transfixing device

## History

Status	Date	Action
Created	11/19/2018	Original effective date
Reviewed	12/12/2017	Independent Multispecialty Physician Panel review