Clinical Policy: Sacroiliac Joint Fusion

Reference Number: LA.CP.MP.126 Coding Implications
Date of last revision: 8/22 Revision Log

See Important Reminder at the end of this policy for important regulatory and legal information.

Description
Sacroiliac joint fusion, or arthrodesis, is a surgical technique that fuses the iliac bone to the sacrum for stabilization. This procedure may be performed in a minimally invasive manner or as an open surgical procedure requiring a larger incision and subsequent increased recovery time.

Policy/Criteria

I. It is the policy of Louisiana Healthcare Connections that open sacroiliac joint fusion is medically necessary for any of the following indications:
- **A.** Stabilization of a traumatic, severe disruption, or fracture of the pelvic ring;
- **B.** As an adjunct to sacrectomy or partial sacrectomy for the treatment of sacral tumors; or
- **C.** As an adjunct to the medical treatment of sacroiliac joint infection or sepsis (e.g., osteomyelitis, pyogenic sacroiliitis);
- **D.** During multisegment spinal constructs (e.g., correction of deformity in scoliosis or kyphosis surgery, extending to the ilium).

II. It is the policy of Louisiana Healthcare Connections that minimally invasive sacroiliac joint fusion is **medically necessary** for the treatment of low back/buttock pain when meeting all of the following:
- **A.** Failure of at least 6 consecutive months of conservative treatment that includes all of the following:
  1. Medication optimization (unless contraindicated);
  2. Activity modification;
  3. At least 4-6 weeks of active therapeutic exercise targeted at the lumbar spine, pelvis, sacroiliac joint (SIJ) and hip, including a home exercise program or documentation of patient's inability to tolerate; and/or osteopathic or chiropractic manipulation;
- **B.** Non-radiating, unilateral pain that is caudal to the lumbar spine (L5 vertebrae), localized over the posterior SIJ, and consistent with SIJ pain, that interferes with activities of daily living (ADLs);
- **C.** Localized tenderness with palpation of the posterior SIJ in the absence of tenderness of similar severity elsewhere (e.g., greater trochanter, lumbar spine, coccyx) and other obvious sources of pain do not exist;
- **D.** Positive response to the thigh thrust test or compression test and at least 2 of the following additional provocative tests (distraction, Gaenslen's, Patrick's test/FABER test);
- **E.** Absence of generalized pain behavior (e.g., somatoform disorder) or generalized pain disorders (e.g., fibromyalgia);
- **F.** Recent (within six months) diagnostic imaging studies that include all of the following:
  1. Plain radiographs and CT or MRI of the SI joint that excludes the presence of destructive lesions (e.g., tumor, infection), fracture, traumatic SIJ instability, or inflammatory arthropathy;

2. Plain radiographs of the ipsilateral hip that excludes the presence of osteoarthritis;
3. CT or MRI of the lumbar spine that excludes neural compression or other degenerative conditions that can cause low back or buttock pain.

G. At least 75% reduction in pain for the expected duration of the anesthetic used following an image guided, contrast-enhanced intra-articular (diagnostic) SIJ injection on 2 separate occasions, at least 2 weeks apart;

H. A failure of at least one therapeutic intra-articular SIJ injection (i.e., corticosteroid injection), or a therapeutic injection is contraindicated.

III. It is the policy of Louisiana Healthcare Connections that the long-term safety and effectiveness of sacroiliac joint fusion procedures, either open or minimally invasive has not been proven for all other indications, including but not limited to, treatment of mechanical or axial low back pain, radicular pain syndromes, sacral insufficiency fractures, and pelvic girdle pain, due to limited clinical evidence.

Background

Low back pain affects approximately 84% of adults during their lives with the sacroiliac joint being the source of chronic low back pain in approximately 15% to 30% of patients.[3,11,17]. When the sacroiliac joint is the source of this pain, and all appropriate conservative measures fail to relieve symptoms of trauma associated with fracture, infection/sepsis, tumors involving the sacrum, cancer, or spinal instability, treatment options may include fusion of this joint or implantation of devices that stabilize this joint with minimally invasive surgery. To stabilize the sacroiliac joint, the iliac crest bone and the sacrum are held together by plates and/or screws or an interbody fusion cage, until the two bones fuse. [3]

There are a number of FDA-approved implants that have been proposed for sacroiliac joint disorders, but the majority of clinical trials and studies have been done on the iFuse implant system. This was initially called the SI Joint Fusion and received the original 510(k) clearance from the Food and Drug Administration in November 2008 for fracture fixation of long bones, large bone fragments of the pelvis and for conditions including sacroiliac joint disruptions and degenerative sacroiliitis. Additional FDA clearances were given on April 21, 2011 and on April 17, 2015. The iFuse system involves the fluoroscopically guided insertion of titanium implants across the sacroiliac joint. Under general anesthesia, a 2-to-3-centimeter incision is created, and after determining the appropriate size of the implant, a cannulated delivery system is used to insert the implants into the proper position. While the number varies, most patients receive 3 implants to stabilize the joint. [7,8]

Wang and Polly completed two randomized controlled trials with a six month and one year follow up, respectively, on sacroiliac joint fusion using iFuse verses non-surgical management. The iFuse led to better outcomes and similar safety compared with nonsurgical management, and to better operative outcomes and at least comparable efficacy compared with open surgery. However, uncertainty remains due to the lack of longer-term efficacy and safety follow-up with radiologic confirmation, and to the lack of comparisons with other minimally invasive approaches. [5,14]

The sacroiliac joint remains a controversial source of primary low back pain, and surgery is rarely performed for sacroiliac joint dysfunction. Although there are ongoing published peer-reviewed studies, there is a paucity of long-term, scientific literature to support sacroiliac joint fusion for low back pain. Additional randomized, controlled trials or comparison studies are needed to compare sacroiliac joint fusion for low back pain to non-surgical treatments to determine the impact on health outcomes and long-term efficacy and safety. [11]

International Society for the Advancement of Spine Surgery (ISASS)
The ISASS outlines eligibility criteria and contraindications relative to minimally invasive surgical sacroiliac joint fusion (MIS SIJF). A meta-analysis was conducted, and the results for patients following MIS SIJF demonstrated steadily and considerably lower SIJ pain scores and ODI (Oswestry Disability Index) scores when compared to baseline scores. Evidence from 2 RCTS and 5 multicenter prospective studies specifically demonstrated pain relief, disability reduction and improvement in QOL (quality of life) were significantly higher in patients treated with MIS SIJF when compared to nonsurgically treated patients. The ISASS concludes that MIS SIJF is "a recognized safe, predictable, and preferred surgical method for the management of intractable, debilitating primary or secondary SIJ pain disorders".[17]

North American Spine Society (NASS)
NASS recommends percutaneous sacroiliac joint (SIJ) fusion for the treatment of sacroiliac joint pain for patients with low back/buttock pain who meet specific criteria. [4]

National Institute for Health and Care Excellence (NICE)
NICE recommends minimally invasive sacroiliac (SI) joint fusion surgery for treatment of chronic SI pain in patients with a confirmed diagnosis of unilateral or bilateral SI joint dysfunction due to degenerative sacroiliitis or SI joint disruption. The committee indicates that this procedure stabilizes the joint, but fusion of the joint does not happen in many cases.[16]

Tobacco cessation is recommended to improve the outcome of spinal fusion surgery. The success of fusion surgery is determined by the ability of the joints to heal into a solid unit; however, the fusion rate of smokers is significantly lower than non-smokers.[19,20] Smoking increases the rate of perioperative complications, especially pseudoarthrosis; therefore, smoking cessation for four weeks following surgery is recommended to reduce risks.[18,19] One study of patients undergoing spinal fusions in the lower back demonstrated an 80-85% success rate for non-smokers or patients who quit smoking following surgery, and < 73% success rate for smokers.[20]

Coding Implications
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of professional coding guidance prior to the submission of claims for reimbursement of covered services.

CPT® Codes	Description
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, open, sacroiliac joint, including obtaining bone graft, including instrumentation, when performed

HCPCS Codes	Description
N/A	

ICD-10-CM Diagnosis Codes that Support Coverage Criteria

ICD-10-CM Code	Description
C41.4	Malignant neoplasm of pelvic bones, sacrum and coccyx
C79.51	Secondary malignant neoplasm of bone
D16.8	Benign neoplasm of pelvic bones, sacrum and coccyx
D48.0	Neoplasm of uncertain behavior of bone and articular cartilage
D49.2	Neoplasm of unspecified behavior of bone, soft tissue, and skin
M43.27-M43.28	Fusion of spine, lumbosacral to sacral and sacrococcygeal region
M46.1	Sacroiliitis, not elsewhere classified
M46.28	Osteomyelitis of vertebra, sacral and sacrococcygeal region
M46.38	Infection of intervertebral disc (pyogenic), sacral and sacrococcygeal region
M53.2X6-M53.2X8	Spinal instabilities, lumbar – sacral and sacrococcygeal region
M53.3	Sacrococcygeal disorders, not elsewhere classified
S32.810A-S32.811S	Multiple fractures of pelvis with stable disruption of pelvic ring

Reviews, Revisions, and Approvals	Revision Date	Approval Date
Converted corporate to local policy.	08/15/2020	
Annual review complete. References reviewed, updated and reformatted. Replaced all instances of member with member/enrollee. Background updated. Section I updated to indicate criteria specific to open SIJ fusion. New criteria added for section II, specific to minimally invasive SIJ fusion. Updated section III "experimental/investigational" verbiage: replaced with "long-term safety and effectiveness has not been proven" and removed reference to iFUSE and sacroiliac joint examples. Reviewed by specialist. Changed "review date" in the header to "last revision date; changed "date" in the revision log header to "revision date."	11/11/2021	3/26/22

Reviews, Revisions, and Approvals	Revision Date	Approval Date
Annual review completed. Added "at least 4-6 weeks" to II.A.3. and added option for inability to tolerate exercise program. Section II.F.1 updated to include "fracture, traumatic SIJ instability". Background updated with information regarding smoking cessation. References reviewed and updated.	8/22	

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Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. LHCC makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved.

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