



CLINICAL GUIDELINES

CMM-611: Sacroiliac Joint Fusion and Stabilization

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EviCore healthcare Clinical Decision Support Tool Diagnostic Strategies: This tool addresses common symptoms and symptom complexes. Imaging requests for individuals with atypical symptoms or clinical presentations that are not specifically addressed will require physician review. Consultation with the referring physician, specialist, and/or individual's Primary Care Physician (PCP) may provide additional insight.

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CMM-611.1: General Guidelines

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Application of Guideline

- The determination of medical necessity for the performance of sacroiliac joint fusion and stabilization is always made on a case-by-case basis.
- For additional timing and documentation requirements, see **CMM-600.1: Prior Authorization Requirements**.

Health Equity Considerations

Health equity is the highest level of health for all individuals; health inequity is the avoidable difference in health status or distribution of health resources due to the social conditions in which individuals are born, grow, live, work, and age. Social determinants of health are the conditions in the environment that affect a wide range of health, functioning, and quality of life outcomes and risks. Examples include the following: safe housing, transportation, and neighborhoods; racism, discrimination, and violence; education, job opportunities, and income; access to nutritious foods and physical activity opportunities; access to clean air and water; and language and literacy skills.

CMM-611.2: Minimally Invasive Sacroiliac Joint Fusion and Stabilization Indications

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CMM-611: Sacroiliac Joint Fusion and Stabilization

CMM-611.2: Minimally Invasive Sacroiliac Joint Fusion and Stabilization Indications

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Minimally invasive sacroiliac (SI) joint fusion and stabilization is considered **medically necessary** when ALL of the following criteria have been met:

- Performed for lumbopelvic pain originating from the SI joint
- Performed using structural devices/implants that traverse and transfix the SI joint with the intention to fuse the SI joint
- Diagnostic confirmation of the SI joint as a pain generator as evidenced by a positive response to two separate diagnostic SI joint injections
 - A positive response to a diagnostic SI joint injection is considered $\geq 75\%$ reduction in the reported pain for the duration of the local anesthetic
 - **Note:** For diagnostic SI joint injections, see **CMM-203: Sacroiliac Joint Procedures**.
- Imaging studies include ALL of the following:
 - plain x-rays and/or cross-sectional imaging (CT or MRI) have been performed to exclude the presence of ANY of the following that would not be properly addressed by SIJ fusion:
 - destructive lesions (e.g., tumor, infection)
 - acute traumatic fracture and/or instability of the SI joint
 - plain x-rays of the pelvis (including the ipsilateral hip) have been performed to evaluate potential concomitant hip pathology as a potential more likely source for the individual's pain
 - cross-sectional imaging (e.g., CT or MRI) of the lumbar spine have been performed to evaluate potential concomitant neural compression or other degenerative conditions as a potential more likely source for the individual's pain
- Diagnostic testing has been performed to exclude the presence of systemic inflammatory arthropathy (e.g., ankylosing spondylitis, psoriatic arthritis, rheumatoid arthritis)
- Symptoms include ALL of the following:
 - individual localizes posterior pain to the posterior superior iliac spine (Fortin's point)
 - presence of non-radiating lumbopelvic pain caudal to L5, buttock, hip, and/or groin pain
 - SI joint pain interfering with activities of daily living

- Physical exam findings include ALL of the following:
 - localized tenderness to palpation over the sacral sulcus and posterior SI joint
 - absence of localized tenderness (of similar severity to palpation of the sacral sulcus and posterior SI joint) over the greater trochanter, lumbar spine, and coccyx
 - reproduction of localized sacroiliac joint pain on at least three (3) of the following provocative tests:
 - thigh thrust test (posterior pelvic pain provocation test)
 - sacroiliac joint compression test
 - Gaenslen's test
 - distraction test (gapping test)
 - FABER test (Patrick's test)
 - sacral thrust test
 - Yeoman's test
- Less than clinically meaningful improvement with ALL of the following (unless contraindicated):
 - a trial of at least one (1) therapeutic SI joint injection
 - **Note:** For therapeutic SI joint injections, see **CMM-203: Sacroiliac Joint Procedures**.
 - non-steroidal anti-inflammatory drugs (NSAIDs) for at least six (6) consecutive months
 - prescription medication optimization for at least six (6) consecutive months
 - activity modification for at least six (6) consecutive months
 - physician supervised/prescribed active physical therapy (including home exercise program) targeting lumbopelvic (core) area for at least six (6) consecutive months
 - **Note:** Chiropractic adjustments may be performed as an additional treatment option, but chiropractic adjustments are NOT required and are NOT considered a substitute for physical therapy.
- Absence of alternative diagnoses that are a more likely cause of the individual's ongoing pain or disability
- Absence of generalized pain behavior (e.g., somatoform disorder) or generalized pain disorders (e.g., fibromyalgia)
- Absence of unmanaged significant mental and/or behavioral health disorders (e.g., major depressive disorder, chronic pain syndrome, secondary gain, opioid and alcohol use disorders)
- Documentation of nicotine-free status with EITHER of the following:
 - individual is a never-smoker
 - individual has refrained from smoking, use of smokeless tobacco products, and/or nicotine replacement therapy for at least six (6) weeks prior to planned surgery validated by objective cotinine testing methods (serum, urinary, or saliva) verified

as within the normal range for the testing method and lab at which the test was performed

CMM-611.3: Open Sacroiliac Joint Fusion Indications

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CMM-611: Sacroiliac Joint Fusion and Stabilization

CMM-611.3: Open Sacroiliac Joint Fusion Indications

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Open sacroiliac (SI) joint fusion is considered **medically necessary** when ALL of the following criteria have been met:

- Plain x-rays and/or cross-sectional imaging (CT or MRI) identifies localized SI joint pathology concordant with the individual's history and physical exam.
- Performed for ANY of the following:
 - post-traumatic injury of the SI joint (e.g., following pelvic ring fracture)
 - as an adjunctive treatment for SI joint infection
 - management of sacral tumor (e.g., partial sacrectomy)
 - when performed as part of a multi-segmental long-fusion constructs for the correction of spinal deformity (e.g., idiopathic scoliosis, neuromuscular scoliosis)
 - failed prior percutaneous (minimally invasive) SI joint fusion
- Documentation of nicotine-free status with EITHER of the following:
 - individual is a never-smoker
 - individual has refrained from smoking, use of smokeless tobacco products, and/or nicotine replacement therapy for at least six (6) weeks prior to planned surgery validated by objective cotinine testing methods (serum, urinary, or saliva) verified as within the normal range for the testing method and lab at which the test was performed

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Not Medically Necessary

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Minimally Invasive or Percutaneous Sacroiliac (SI) Joint Fusion and Stabilization

- Minimally invasive or percutaneous SI joint fusion and stabilization using titanium triangular implants performed without meeting the criteria in the General Guidelines and the criteria in Minimally Invasive Sacroiliac Joint (SIJ) Fusion or Stabilization Indications is considered **not medically necessary**.
- Minimally invasive or percutaneous SI joint fusion and stabilization using titanium triangular implants is considered **not medically necessary** for EITHER of the following:
 - any condition that would prevent insertion of the implants
 - bilateral SI joint fusion and stabilization procedures on the same date of service
- Minimally invasive or percutaneous SI joint fusion and stabilization using products/implants that do NOT traverse and transfix the SI joint (e.g., allograft wedge between the sacrum and ilium, non-metallic implants) is considered **not medically necessary**.
- Minimally invasive or percutaneous SI joint fusion and stabilization performed without the intention of fusing the SI joint (i.e., joint distraction) is considered **not medically necessary**.

Open Sacroiliac (SI) Joint Fusion

- Open sacroiliac (SI) joint fusion performed without meeting the criteria in the General Guidelines and the criteria in Open Sacroiliac Joint Fusion Indications is considered **not medically necessary**.
- Open sacroiliac (SI) joint fusion is considered **not medically necessary** for ANY of the following conditions:
 - mechanical low back pain
 - sacroiliac joint syndrome
 - degenerative sacroiliac joint
 - radicular pain syndromes

Codes (CMM-611)

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Codes (CMM-611)

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The inclusion of any code in this table does not imply that the code is under management or requires prior authorization. Refer to the applicable health plan for management details. Prior authorization of a code listed in this table is not a guarantee of payment. The Certificate of Coverage or Evidence of Coverage policy outlines the terms and conditions of the member's health insurance policy.

Code	Code Description/Definitions
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 transfixation device
27280	Arthrodesis, sacroiliac joint, open, includes obtaining bone graft, including instrumentation, when performed

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Evidence Discussion (CMM-611)

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Evidence Discussion (CMM-611)

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Sacroiliac Joint Fusion and Stabilization

Risks of minimally invasive sacroiliac (SI) joint fusion include, but are not limited to, the following: infection; neurovascular injury; persistent or incomplete relief of symptoms; possible need for more surgery; non-union; fracture; hemorrhage; hematoma; deep vein thrombosis; pulmonary embolus; and, death.^{77,115} Issues related to the implant (e.g., migration, loosening, breakage, malposition) are also possible.^{77,115} Complication rates for minimally invasive SI joint fusion have been reported in the literature to be as high as 16.4%.¹¹⁰ Given the potential possibility for significant complications, proper surgical candidacy selection is critical to minimize the risk benefit ratio.

As it can be challenging to identify the sacroiliac (SI) joint as the source of pain, the following are required: supportive subjective symptoms and physical exam findings; imaging findings to rule out other sources of pain; and, positive results of diagnostic injections.^{106,124,125} As multiple etiologies for low back pain exist, pain should be non-radicular and localized to the posterior superior iliac spine (Fortin's point).³⁸ Multiple articles have indicated that three or more of six provocation SI joint tests have the best predictive power when looking at physical exam findings.^{43,59,124} No imaging studies have been found to be accurate in diagnosing SIJ pain.⁷³ The North American Spine Society (NASS) (in *Coverage Policy Recommendations: Minimally Invasive Sacroiliac Joint Fusion*) recommends imaging (both X-ray and CT or MRI) to rule out as potential more likely sources of pain such as destructive lesions, lumbar spine neural compression, other degenerative conditions, and ipsilateral hip pathology.⁸⁰ Regarding diagnostic injections, studies have shown a single SI joint injection (with or without steroid) has a false positive rate of 20-54%.^{53,58,108} It is therefore recommended that confirmation of SI joint pain requires two separate diagnostic injections with at least 75% improvement.^{54,49,60,80,125}

Given the risks of surgery and difficulty of definitively identifying the SI joint as a pain generator, it is generally accepted to start treatment with conservative measures including NSAIDs and other medications, activity modifications, therapeutic injections, and physical therapy.^{5,37,106} Surgical treatment may be considered when an individual has persistent moderate to severe pain, functional impairment, and failed a minimum of six (6) months of conservative care.^{5,37,80,106}

Literature has shown poorer outcomes and higher complication rates in individuals with unmanaged psychosocial disorders or smoking history and that are undergoing fusion.^{9,17,30,48,58,88,126} Proper identification and treatment of these conditions prior to

surgery may significantly improve many outcome measures. Evidence supports that the various methods of cotinine testing (serum, saliva, urinary) are sufficiently equivalent in accuracy to confirm nicotine abstinence. Serum testing cutoff values ranged from 3.0ng/mL to 20ng/mL. Salivary testing cutoff values ranged from 10ng/mL to 44ng/mL. Urinary testing cutoff is 10ng/mL.^{1,8,24,57}

Contraindications to minimally invasive SI joint fusion, as noted by the North American Spine Society (NASS) (in *Coverage Policy Recommendations: Minimally Invasive Sacroiliac Joint Fusion*), include the presence of systemic arthropathy such as ankylosing spondylitis or rheumatoid arthritis, the presence of generalized pain behavior or generalized pain disorder, or the presence of infection or tumor.⁸⁰

Indications for open SI joint fusion include severe traumatic injuries associated with pelvic ring disruption, multi-segment spinal constructs extending to the ilium, management of sacral tumors, or adjunctive use to the medical treatment of sacroiliac joint infection.^{26,42,46,50,79,98,137}

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