Sacroiliac Joint Fusion

Description of Procedure or Service

Sacroiliac joint fusion is a surgical procedure which fuses the iliac bone (pelvis) to the spine (sacrum) for stabilization. It is performed for a variety of conditions including trauma, infection, cancer, and spinal instability. In the 1920’s and 1930’s sacroiliac joint fusion was used for the treatment of low back pain. Treatment for sacroiliac joint syndrome is usually non-surgical. Sacroiliac joint fusion surgery is now being actively investigated as treatment for mechanical low back pain when the sacroiliac joint is the suspected cause.

The following implants have received the U.S. Food and Drug Administration’s (FDA) 510(k) approval:
- Simmetry®, Zyga Technologies;
- iFuse Implant System®, SI Bone;
- SI-FIX, Medtronic;
- SI-LOK™ Sacroiliac Joint Fixation System, Globus Medical;
- Silex™ Sacroiliac Joint Fusion System, X-Spine Systems

SIJF Cannulated screw System, Depuy Spine;
Pioneer Cannulated Screw System, Pioneer Surgical Technology, Inc.;
Synthes 6.5mm Cannulated Screws, Synthes USA.

***Note: This Medical Policy is complex and technical. For questions concerning the technical language and/or specific clinical indications for its use, please consult your physician.

Policy

BCBCNC will provide coverage for sacroiliac joint fusion when it is determined to be medically necessary because the medical criteria and guidelines shown below are met.

Benefits Application

This medical policy relates only to the services or supplies described herein. Please refer to the Member's Benefit Booklet for availability of benefits. Member's benefits may vary according to benefit design; therefore member benefit language should be reviewed before applying the terms of this medical policy.

When Sacroiliac Joint Fusion is covered

Sacroiliac joint fusion procedures may be considered medically necessary for any of the following indications:
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- as an adjunct to sacrectomy or partial sacrectomy related to tumors involving the sacrum; or
- as an adjunct to the medical treatment of sacroiliac joint infection/sepsis; or
- severe traumatic injuries associated with pelvic ring fracture; or
- when multisegment spinal constructs extend to the sacrum/ilium, as a component of medically necessary lumbar spine fusion procedures (See medical policy, ‘Lumbar Spine Fusion Surgery’).

When Sacroiliac Joint Fusion is not covered

When none of the above indications are present, the procedure is considered not medically necessary.

Fusion/stabilization of the sacroiliac joint for the treatment of mechanical back pain presumed to originate from the sacroiliac joint is considered investigational, including but not limited to percutaneous and minimally invasive techniques.

Policy Guidelines

For individuals who have SIJ pain who receive SIJ fusion, the evidence includes 2 randomized controlled trials (RCTs) of minimally invasive fusion and a number of case series. Relevant outcomes are symptoms, functional outcomes, quality of life, medication use, and treatment-related morbidity. Both nonblinded RCTs reported superior short-term results for fusion, but there is potential for bias because of unblinded controls and because the trials used self-reported outcomes. Three case series of reasonable size and good follow-up showed that benefits obtained at 6 months persist to 2 years. One small case series showed good outcomes persist to 5 years. The case series are consistent with durability of treatment benefit, but only if there is a true benefit of treatment. Reports from adverse effects monitoring, registries, and administrative data raise uncertainty about net health outcome achievable in clinical practice. The evidence is insufficient to determine the effects of the technology on health outcomes.

The following is a summary of recent comparative studies and ongoing trials:

Comparative Studies

In 2010, Ashman et al conducted a systematic review to compare fusion versus denervation for chronic sacroiliac pain. Six articles on fusion (95 patients) and 5 on denervation (68 patients) were included in the review. All studies on fusion were case series evaluating a single treatment. There were 2 small randomized controlled trials (RCTs) on radiofrequency denervation; 1 is previously described, and the other had only 9 patients. The strength of the evidence was considered to be very low to low, preventing conclusions regarding the comparative efficacy of the treatments.

A 2012 systematic review found that the quality of evidence for surgical treatment (debridement, fusion) vs. injection treatment (corticosteroid, botulinum toxin, prolotherapy) for chronic sacroiliac pain was very low. Seven case series on surgical treatment and 5 on injection treatment met their selection criteria. Although most studies reported more than 40% improvement in pain and more than 20% improvement in functionality, the literature was considered insufficient to evaluate the comparative effectiveness.

Ongoing and Unpublished Clinical Trials

NCT01681004 (INSITE) is a manufacturer-sponsored phase 4 randomized crossover trial of the iFuse Implant System® in patients with degenerative sacroiliitis or sacroiliac disruption. Nonsurgical management in the control arm will include medications, sacroiliac joint injection, physical therapy, and RFA of the sacroiliac joint. The study has an estimated enrollment of 150 patients with completion...
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expected December 2016. At the time of the most recent update to the online site ClinicalTrials.gov in June 2015, the study is ongoing, but not recruiting participants.

NCT01640353 – Sacroiliac joint fusion with iFuse Implant System® (SIFI) is a manufacturer-sponsored multicenter single-arm clinical trial that is being conducted at 26 sites in the U.S. The study has completed enrollment with an estimated 250 patients; the study has been completed and was last updated February 2017.

NCT01741025 is a manufacturer-sponsored randomized crossover study comparing the iFuse Implant System® vs. conservative management (medications, physical therapy, information) in patients with sacroiliac joint pain. There is an estimated enrollment of 100 patients. At the time of the most recent update to the online site ClinicalTrials.gov in October 2016, the study is ongoing, but not recruiting participants.

NCT01861899 is a manufacturer-sponsored observational study of SI-LOK® sacroiliac joint fixation. An estimated 55 patients will be recruited. As of February, 2016, the study is currently recruiting participants.

NCT01104051 is a randomized crossover study of radiofrequency nerve ablation using Simplicity III in patients with chronic low back pain caused by sacroiliac joint dysfunction. Twenty eight patients were enrolled. Study completion was June 2015. No study results have been posted on ClinicalTrials.gov for this study.

Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcbsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable codes: 27279, 27280, 27299

BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

Scientific Background and Reference Sources


Medical Director – 10/2012


Senior Medical Director – 1/2014

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Policy Implementation/Update Information

11/27/12 New policy. “Sacroiliac joint fusion procedures may be considered medically necessary for any of the following indications: as an adjunct to sacrectomy or partial sacrectomy related to tumors involving the sacrum; or as an adjunct to the medical treatment of sacroiliac joint infection/sepsis; or severe traumatic injuries associated with pelvic ring fracture; or when multisegment spinal constructs extend to the sacrum/ilium, for covered lumbar spine fusion procedures (See medical policy, ‘Lumbar Spine Fusion Surgery’).” “When none of the above indications are present, the procedure is considered not medically necessary. Sacroiliac joint fusion surgery is considered investigational for the treatment of mechanical low back pain when the sacroiliac joint is the suspected cause.” Senior Medical Director review 10/28/2012. Notification given 11/27/12. Policy effective 2/26/13. (btw)

4/16/13 Added CPT code 27299 to Billing/Coding section. (btw)


8/27/13 Removed CPT code 0334T from Billing/Coding section. Code implementation delayed. (btw)

11/26/13 Added CPT code 0334T to Billing/Coding section, code effective 7/1/2013. (btw)
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2/11/14 Revised statement in the When Covered section for clarification. Statement changed from; “when multisegment spinal constructs extend to the sacrum/ilia, for covered lumbar spine fusion procedures (See medical policy, ‘Lumbar Spine Fusion Surgery’).” to “when multisegment spinal constructs extend to the sacrum/ilia, as a component of medically necessary lumbar spine fusion procedures (See medical policy, ‘Lumbar Spine Fusion Surgery’).” Senior Medical Director review 1/30/2014. (btw)

6/10/14 Specialty Matched Consultant Advisory Panel review 5/27/2014. No change to policy intent. (btw)

12/30/14 References added. Policy Guidelines updated. Added code 27279 to Billing/Coding section for effective date 1/1/2015. Deleted code 0334T. No change to Policy statement. (sk)


2/29/16 Reference added. Policy Guidelines updated. (sk)

7/1/16 Specialty Matched Consultant Advisory Panel review 5/25/2016. (sk)


Medical policy is not an authorization, certification, explanation of benefits or a contract. Benefits and eligibility are determined before medical guidelines and payment guidelines are applied. Benefits are determined by the group contract and subscriber certificate that is in effect at the time services are rendered. This document is solely provided for informational purposes only and is based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. Medical practices and knowledge are constantly changing and BCBSNC reserves the right to review and revise its medical policies periodically.