

02-99221-17

Original Effective Date: 09/15/12

Reviewed: 05/23/24

Revised: 06/15/24

## Subject: Subtalar Arthroereisis

THIS MEDICAL COVERAGE GUIDELINE IS NOT AN AUTHORIZATION, CERTIFICATION, EXPLANATION OF BENEFITS, OR A GUARANTEE OF PAYMENT, NOR DOES IT SUBSTITUTE FOR OR CONSTITUTE MEDICAL ADVICE. ALL MEDICAL DECISIONS ARE SOLELY THE RESPONSIBILITY OF THE PATIENT AND PHYSICIAN. BENEFITS ARE DETERMINED BY THE GROUP CONTRACT, MEMBER BENEFIT BOOKLET, AND/OR INDIVIDUAL SUBSCRIBER CERTIFICATE IN EFFECT AT THE TIME SERVICES WERE RENDERED. THIS MEDICAL COVERAGE GUIDELINE APPLIES TO ALL LINES OF BUSINESS UNLESS OTHERWISE NOTED IN THE PROGRAM EXCEPTIONS SECTION.

<a href="#">Position Statement</a>	<a href="#">Billing/Coding</a>	<a href="#">Reimbursement</a>	<a href="#">Program Exceptions</a>	<a href="#">Definitions</a>	<a href="#">Related Guidelines</a>
<a href="#">Other</a>	<a href="#">References</a>	<a href="#">Updates</a>			

### DESCRIPTION:

Arthroereisis is a surgical procedure that limits movement across a joint. Subtalar arthroereisis (also called extraosseous talotarsal stabilization) is designed to correct excessive talar displacement and calcaneal eversion by reducing pronation across the subtalar joint. The stabilization procedure is performed by placing an implant in the sinus tarsi, which is a canal located between the talus and the calcaneus. Several implants have been cleared for marketing by the U.S. Food and Drug Administration (FDA) through the 510(k) process. In general, these devices are indicated for insertion into the sinus tarsi of the foot, allowing normal subtalar joint motion while blocking excessive pronation.

**Summary and Analysis of Evidence:** The American College of Foot and Ankle Surgeons Clinical Consensus Statement: Appropriate Clinical Management of Adult-Acquired Flatfoot Deformity (2020) states, "Subtalar arthroereisis should not be considered as a single corrective procedure for stage IIB AAFD [adult flatfoot]." Ghali, et al (2022) concluded "The subtalar arthroereisis surgery, nonetheless, requires future long-term prospective studies examining the biomechanics of the procedure and implant, as well as forthcoming complications. Given its current conventional use and potential for improvement, subtalar arthroereisis can undergo immense progress regarding establishing evidence-based clinical guidelines and reaching a better consensus on how to optimize this surgery." For patients with flatfoot who receive subtalar arthroereisis and patients who have talotarsal joint dislocation who receive subtalar arthroereisis, the evidence includes single-arm studies and nonrandomized controlled trial. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

### POSITION STATEMENT:

Subtalar arthroereisis is considered **experimental or investigational** for all indications. The evidence is insufficient to determine the effects of the technology on health outcomes.

## BILLING/CODING INFORMATION:

### CPT Coding:

0335T	Insertion of sinus tarsi implant ( <b>Investigational</b> )
0510T	Removal of sinus tarsi implant ( <b>Investigational</b> )
0511T	Removal and reinsertion of sinus tarsi implant ( <b>Investigational</b> )

### HCPCS Coding:

S2117	Arthroereisis, subtalar ( <b>Investigational</b> )
-------	--

## REIMBURSEMENT INFORMATION:

Refer to section entitled [POSITION STATEMENT](#).

## PROGRAM EXCEPTIONS:

**Federal Employee Program (FEP):** Follow FEP guidelines.

**State Account Organization (SAO):** Follow SAO guidelines.

**Medicare Advantage products:** No National Coverage Determination (NCD) and/or Local Coverage Determination (LCD) was found at the time of the last guideline reviewed date.

If this Medical Coverage Guideline contains a step therapy requirement, in compliance with Florida law 627.42393, members or providers may request a step therapy protocol exemption to this requirement if based on medical necessity. The process for requesting a protocol exemption can be found at [Coverage Protocol Exemption Request](#).

## DEFINITIONS:

**Calcaneus:** The largest tarsal bone situated at the lower and back part of the foot, forming the heel.

**Flatfoot:** A condition in which one or more of the arches of the foot have flattened out.

**Talus:** A small bone that sits between the calcaneus (heel bone) and the tibia and fibula to form the ankle joint.

## RELATED GUIDELINES:

[Total Ankle Replacement, 02-99221-15](#)

## OTHER:

None applicable

## REFERENCES:

1. American Academy of Orthopedic Surgeons (AAOS), AAOS Now- Treatment for Pediatric Pes Planus Debated, May 2011. Accessed at [aaos.org](http://aaos.org).

2. Blue Cross Blue Shield Association Evidence Positioning System®; 7.01.104 Subtalar Arthroereisis, 05/24.
3. De Pelegrin M, Moharamzadeh D. Subtalar Arthroereisis for Surgical Treatment of Flexible Flatfoot. *Foot Ankle Clin.* 2021 Dec;26(4):765-805. PMID: 34752238.
4. DiGennaro GL, Stallone S, Trisolino G. Operative Versus Nonoperative Treatment in Children with Painful Rigid Flatfoot and Talocalcaneal Coalition. *BMC Musculoskelet Disord.* 2020 Mar 24;21(1):185.doi:10.1186/s12891-020-03213-5.
5. Elmarghany M, Abd El-Ghaffar TM, et al. Is Subtalar Extra Articular Screw Arthroereisis (SESA) Reducing Pain and Restoring Medial Longitudinal Arch in Children with Flexible Flat Foot? *J Orthop.* 2020 Jan 28; 20:147-153. doi: 10.1016/j.jor.2020.01.038. eCollection Jul-Aug 2020. PMID: 32025139.
6. Ghali A, Mhapankar A, et al. Arthroereisis: Treatment of Pes Planus. *Cureus.* 2022 Jan 7;14(1):e21003.
7. Graham ME, et al, Radiographic Evaluation of Navicular Position in the Sagittal Plane- Correction Following an Extraosseous Talotarsal Stabilization Procedure. *J Foot Ankle Surg.* 2011 Sep-Oct;50(5):551-7.
8. Harris EJ, Vanore JV, Thomas JL, et al. Clinical Practice Guideline Pediatric Flatfoot Panel: American College of Foot and Ankle Surgeons (ACFAS). Diagnosis and treatment of pediatric flatfoot. *J Foot Ankle Surg.* Nov-Dec 2004;43(6):341-373.
9. Indino C, Villafane JH, et al. Effectiveness of subtalar arthroereisis with endorthesis for pediatric flexible flat foot: a retrospective cross-sectional study with final follow up at skeletal maturity. *Foot Ankle Surg.* 2018 Dec 21. pii: S1268-7731(18)30505-8. doi: 10.1016/j.fas.2018.12.002. [Epub ahead of print]. PMID: 30598422.
10. Junxian CF, Kunnasegaran R, Thevendran G. Surgical Management of Symptomatic Adult Pes Planovalgus Secondary to Stage 2B Posterior Tibial Tendon Dysfunction: A Comparison of Two Different Surgical Treatments. *Indian J Orthop.* 2020 Jan 24;54(1):22-30. doi: 10.1007/s43465-019-00011-7. eCollection 2020 Feb. PMID: 32211126.
11. Koning PM, Heesterbeek PJ, et al, Subtalar arthroereisis for pediatric flexible pes planovalgus: fifteen years' experience with the cone-shaped implant. *J Am Podiatr Med Assoc.* 2009 Sep-Oct;99(5):447-53.
12. Lawton CD, Butler BA, et al, Total ankle arthroplasty versus ankle arthrodesis-a comparison of outcomes over the last decade. *J Orthop Surg Res.* 2017 May 18;12(1):76.
13. Lee MS, Vanore JV, Thomas JL, et al. Clinical Practice Guideline Adult Flatfoot Panel: American College of Foot and Ankle Surgeons (ACFAS). Diagnosis and treatment of adult flatfoot. *J Foot Ankle Surg.* Mar-Apr 2005;44(2):78-113.
14. Mattesi L, Ancelin, Severyns MP. Is subtalar arthroereisis a good procedure in adult-acquired flatfoot? A systematic review of the literature. *Orthop Traumatol Surg Res.* 2021 Oct;107(6):103002. PMID: 34216843.
15. National Institute for Clinical Excellence (NICE). Sinus Tarsi Implant Insertion for Mobile Flatfoot: Interventional Procedure Guidance 305. 2009; accessed at nice.org.uk/guidance.
16. Papamerkouriou YM, Rajan R, Kerr M. Prospective Early Clinical, Radiological, and Kinematic Pedobarographic Analysis Following Subtalar Arthroereisis for Paediatric Pes Planovalgus. *Cureus.* 2019 Dec 6;11(12): e6309. doi: 10.7759/cureus.6309.
17. Piraino JA, Theodoulou MH, et al. American College of Foot and Ankle Surgeons Clinical Consensus Statement: Appropriate Clinical Management of Adult-Acquired Flatfoot Deformity. *J Foot Ankle Surg.* Mar-Apr 2020;59(2):347-355.
18. Smith C, Zaidi R, et al. Subtalar arthroereisis for the treatment of the symptomatic paediatric flexible pes planus: a systematic review. *EFFORT Open Rev.* 2021 Feb 1;6(2):118-129.PMID: 33828855.

19. Suh DH, Park JH, et al. Lateral column lengthening versus subtalar arthroereisis for paediatric flatfeet: a systematic review. *Int Orthop*. 2019 Jan 30. doi: 10.1007/s00264-019-04303-3. [Epub ahead of print]. PMID: 30701302.
20. Tan JHI, Tan SHS, et al. The outcomes of subtalar arthroereisis in pes planus: a systemic review and meta-analysis. *Arch Orthop Trauma Surg*. 2021 May;141(5):761-773. PMID: 32377845.
21. U.S. Food and Drug Administration (FDA), accessed at [fda.gov](http://fda.gov).
22. Walley KC, Greene G, et al. Short- to Mid-Term Outcomes Following the Use of an Arthroereisis Implant as an Adjunct for Correction of Flexible, Acquired Flatfoot Deformity in Adults. *Foot Ankle Spec*. 2018 Apr 1:1938640018770242. doi: 10.1177/1938640018770242. [Epub ahead of print]. PMID: 29644885.
23. Wong DW, Wang Y, et al. Biomechanical consequences of subtalar joint arthroereisis in treating posterior tibial tendon dysfunction: a theoretical analysis using finite element analysis. *Comput Methods Biomech Biomed Engin*. 2017 Nov;20(14): 1525-1532. doi: 10.1080/10255842.2017.Epub 2017 Sep 27. PMID: 28952799.

### COMMITTEE APPROVAL:

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy and Coverage Committee on 05/23/24.

### GUIDELINE UPDATE INFORMATION:

09/15/12	New Medical Coverage Guideline.
10/15/13	Annual Review: position statement maintained, program exception and references updated.
01/01/14	Annual HCPCS update. Added code 0335T.
11/15/14	Annual review; no change to position statement; references updated.
11/01/15	Revision: ICD-9 Codes deleted.
11/15/15	Annual review: position statement maintained; references updated.
10/15/17	Review: investigational position maintained; guideline description, coding, and references updated.
02/15/18	Revision: coding section updated.
01/01/19	Annual CPT/HCPCS coding update. Added codes 0510T, 0511T; revised code 0335T.
06/15/19	Review: position statement maintained, and references updated.
06/15/20	Review: position statement maintained, and references updated.
06/15/22	Review: Position statement maintained; references updated.
08/21/23	Update to Program Exceptions section.
01/01/24	Position statements maintained.
06/15/24	Review: Position statement maintained; description and references updated.