

Clinical Practice Guideline: First Toe Sesamoidectomy

Date of Implementation: June 18, 2015

Product: Specialty

GUIDELINES

American Specialty Health – Specialty (ASH) considers services consisting of CPT® Code 28315 to be medically necessary for painful sesamoid pathology of the first toe **upon meeting the following criteria:**

1. Failure of **at least 3 of the following** non-operative treatments
 - Orthotics
 - Padding
 - Strapping/taping
 - Immobilization
 - Non-steroidal anti-inflammatory medications
 - Steroid injections

This procedure is not separately payable if performed with a bunionectomy procedure.

CPT® Codes and Descriptions

CPT® Code	CPT® Code Description
28315	Sesamoidectomy, first toe (separate procedure)

BACKGROUND

The painful sesamoid can be a chronic and disabling problem. Sesamoid abnormality includes acute fracture, acute separation of bipartite sesamoids, sesamoiditis caused by repetitive trauma or infection, chondromalacia, osteochondritis dissecans, and osteoarthritis. Damage to the plantar plate/sesamoid complex arises from forced dorsiflexion of the first metatarsophalangeal (MTP) joint, resulting in degrees of avulsion of the plantar plate from the base of the phalanx. Proximal migration of the sesamoids can also occur. Chronic injuries can also be caused by repetitive trauma, as seen in dancers and runners. Painful symptoms are observed beneath the first metatarsal head arising from mechanical overload associated with overpronation, hallux valgus, and the pathologic plantarflexed first ray (e.g., pes cavus). Diseases of the joint such as primary osteoarthritis and inflammatory arthropathies may give rise to plantar pain.

Conservative treatment is the first line of care for sesamoid disorders of the first toe. Conservative methods work to reduce the weight transmitted through the first metatarsal head. These methods may include limitation of activities/weight bearing and activity

1 modification, orthoses to offload/accommodate the first MTP joint, avoidance of high
2 heels, a rocker-sole shoe designed to reduce the movement at the first MTP joint and at the
3 sesamoid-metatarsal articulation, physiotherapy, or immobilization for acute fractures. In
4 addition to these measures, nonsteroidal anti-inflammatories can work synergistically to
5 relieve symptoms.

6
7 Surgical options should be carefully considered and should only be used after the failure
8 of conservative care. Plantar prominence of one or both sesamoids can cause localized pain
9 that may be due to pes cavus, a plantarflexed first ray, gastrocnemius tightening, or fixed
10 equinus of the ankle. A pronated forefoot can also overload the medial sesamoid. Primary
11 surgical treatment, which should treat the underlying condition, may also involve tendo-
12 Achilles or gastrocnemius lengthening, dorsiflexion osteotomy at the base of the first
13 metatarsal, or corrective osteotomies or fusions for the fixed pes cavus foot (Taylor et al.,
14 2014).

15
16 Singular sesamoid excision has been advocated for conditions such as displaced and
17 nondisplaced fractures, sesamoiditis or osteochondritis that do not resolve with six months
18 of conservative management, and osteomyelitis. Although isolated sesamoid resection can
19 prove definitive, this procedure has potential complications. Removing the fibular
20 sesamoid is associated with an increased incidence of hallux varus, whereas removing a
21 tibial sesamoid can worsen a hallux valgus deformity. Excision of either sesamoid can
22 increase the stress or pressure on the metatarsal head and flexor hallucis longus (FHL)
23 tendon producing localized disorders. The clinician may reserve sesamoid excision as a
24 salvage procedure when alternate treatment fails (Boike et al., 2011). Indications for
25 sesamoidectomy would be when the correct conservative management fails and the patient
26 has ongoing debilitating symptoms, normal alignment of first ray with no excessive
27 metatarsal plantarflexion, and absence of clawing (Taylor et al., 2014).

28
29 Generally, when evaluating a hallux limitus or rigidus deformity for surgery, the surgeon
30 considers several procedures, often without taking the sesamoid characteristics into
31 account. Procedures commonly used include simple cheilectomies, first
32 metatarsophalangeal joint arthrodeses, and osteotomies. Surgeons may decide to perform
33 a sesamoidectomy on a case-by-case basis. Tagoe et al. (2009) followed 33 patients (36
34 procedures) over 2-4 years who had undergone total sesamoidectomy for hallux
35 rigidus/limitus. According to the authors, there were high levels of clinical improvement
36 and patient satisfaction following the procedure, with no significant functional impairment
37 or malalignment. There were no instances of pain on metatarsal compression or of transfer
38 metatarsalgia. A highly statistically significant improvement in American Orthopedic Foot
39 & Ankle Society hallux (AOFAS) scores was found ($p < 0.001$). The authors concluded
40 that for symptomatic patients in whom a joint replacement/fusion is not indicated, total
41 sesamoidectomy may be beneficial as an interim procedure for joints with a moderate
42 degree of arthrosis (grade II to III) (Tagoe, 2009).

1 Sesamoidectomy may also be indicated for the treatment of turf toe. A turf toe injury
2 typically occurs when an axial load is delivered to a foot in a fixed equinus position at the
3 ankle with the great toe in extension at the MTP joint. McCormick and Anderson, (2010)
4 carried out a review of the literature on the treatment of turf toe. The authors recommended
5 surgery for the repair for the complete rupture of the plantar structures of the hallux
6 metatarsophalangeal joint. Specifically, if the sesamoid is fractured or fragmented, one
7 pole of the sesamoid should be preserved, if possible. If complete sesamoidectomy is
8 necessary, then the abductor hallucis tendon should be transferred into the soft tissue defect
9 of the excised sesamoid to provide collagen to the site of injury and allow the abductor to
10 function as a plantar restraint to dorsiflexion while augmenting flexion at the MTP joint.

11
12 Contraindications to sesamoidectomy include inadequate diagnosis, previous excision of a
13 sesamoid/absence of a sesamoid on the same foot. Relative contraindications are similar
14 for all foot and ankle surgery, and include peripheral vascular disease, soft-tissue and
15 wound-healing problems, diabetes mellitus, and smoking (Taylor et al., 2014).

16 17 **PRACTITIONER SCOPE AND TRAINING**

18 Practitioners should practice only in the areas in which they are competent based on their
19 education, training, and experience. Levels of education, experience, and proficiency may
20 vary among individual practitioners. It is ethically and legally incumbent on a practitioner
21 to determine where they have the knowledge and skills necessary to perform such services
22 and whether the services are within their scope of practice.

23
24 It is best practice for the practitioner to appropriately render services to a member only if
25 they are trained, equally skilled, and adequately competent to deliver a service compared
26 to others trained to perform the same procedure. If the service would be most competently
27 delivered by another health care practitioner who has more skill and training, it would be
28 best practice to refer the member to the more expert practitioner.

29
30 Best practice can be defined as a clinical, scientific, or professional technique, method, or
31 process that is typically evidence-based and consensus driven and is recognized by a
32 majority of professionals in a particular field as more effective at delivering a particular
33 outcome than any other practice (Joint Commission International Accreditation Standards
34 for Hospitals, 2020).

35
36 Depending on the practitioner's scope of practice, training, and experience, a member's
37 condition and/or symptoms during examination or the course of treatment may indicate the
38 need for referral to another practitioner or even emergency care. In such cases it is prudent
39 for the practitioner to refer the member for appropriate co-management (e.g., to their
40 primary care physician) or if immediate emergency care is warranted, to contact 911 as
41 appropriate. See the *Managing Medical Emergencies (CPG 159 – S)* clinical practice
42 guideline for information.

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