Hallux Valgus Surgery (Bunionectomy)

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INSTRUCTIONS FOR USE

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Coverage Policy

Hallux valgus surgery (bunionectomy) is considered medically necessary when there is a confirmed diagnosis of hallux valgus and ANY of the following signs/symptoms directly attributable to a hallux valgus deformity:

- difficulty walking
- significant and persistent pain at first metatarsophalangeal joint
- ulceration at the first metatarsophalangeal joint

when EITHER of the following criteria is met:

- signs/symptoms are unresponsive to the use of appropriate foot wear and at least six months of conservative treatment*, including at least TWO of the following:
  - padding
  - oral analgesics or anti-inflammatory medications
  - local injections to the first metatarsophalangeal joint (i.e., local anesthetic or steroid)
- ulceration at the first metatarsophalangeal joint that has not responded to four weeks of local wound care

*In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document.
This Medical Coverage Policy does not address partial or total metatarsophalangeal joint replacement of the hallux. For information on this procedure, refer to the separate Medical Coverage Policy on Metatarsophalangeal Joint Replacement.

Hallux valgus surgery (bunionectomy) for the sole purpose of improving appearance of the foot is considered not medically necessary.

Overview

This Coverage Policy addresses surgical procedures for hallux valgus (bunionectomy).

General Background

Hallux valgus is the lateral deviation of the great toe towards the midline of the foot. It is usually accompanied by a bunion, which is the inflammation and thickening of the first metatarsal joint of the great toe. The terms bunion and hallux valgus are often used interchangeably. The medial eminence, or bunion, is often the most visible component of a hallux valgus deformity. Hallux valgus is a common disorder, with the incidence is higher in females. Certain anatomical and structural abnormalities may also play a role in development of hallux valgus.

Radiographs will provide information regarding angular measurement on the following two angles, which will assist in defining the severity of the deformity:

- The angle between the first and second metatarsals is the intermetatarsal (IM) angle, and an angle measurement of less than 9° is considered normal.
- The angle between the first metatarsal and the hallux itself is the hallux valgus (HV, HVA, or HA) angle, and an HV angle of less than 15° is considered normal.

Radiographs can also demonstrate an increase in the IM angle, an increase in the HV angle, lateral dislocation of sesamoids, subluxation of the first metatarsal joint, pronation of great toe and evidence of arthritis. They are also used for preoperative surgical planning.

The primary symptom of a bunion is pain, typically located over the medial eminence. Pressure from footwear is the most frequent cause of pain. Associated findings may include ulceration of medial eminence, transfer metatarsalgia, corns, calluses, hammer-toe deformity of second toe, stress fracture of lesser toes, arthritis of first metatarsophalangeal joint, or ingrown toenail. The condition may be asymptomatic even in the presence of significant deformity.

The physical examination should be performed both sitting and standing. The foot should be examined for other conditions, such as pes planus deformity; contracture of Achilles tendon; magnitude of the hallux valgus deformity; measurement of passive and active range of motion of the joint; pain or crepitus with motion of the joint; or presence of hypermobility. Neurovascular status should be assessed, and the lesser toes should be assessed for deformities, as well as the plantar surface of the foot.

Bunions are common in the general adolescent population (Chambers, 2003). A bunion in this population may differ from an adult bunion in that there may be a significant hallux valgus without a large medial bursa and/or bone changes. Initial treatment is dependent on the presenting symptoms. This may include changing shoes, altering the activities or sport and a toe-spreading orthotic. Surgery may be needed, but there is a high level of recurrence in this age group. Surgery should be considered only when all other treatment has failed in individuals who have not reached skeletal maturity since, after surgery. Children may not return to previous level of functioning due to joint stiffness and pain at extremes of motion (Chambers, 2003).

Conservative Treatment

Nonsurgical care is considered the first option for a patient with this deformity and is typically attempted prior to considering surgical intervention. Initial treatment is often self-directed and may include: wider, lower-heeled shoes, bunion pads, ice, over-the-counter analgesics, and non-steroidal anti-inflammatory medications.
(NSAIDs). Eliminating friction over the medial eminence can often relieve pain, blistering and bursal inflammation. The first approach should also include evaluation of the patient’s footwear and education regarding appropriate footwear (e.g., shoes with low heels and broad toe box; avoidance of shoes with seams or stitching over the medial eminence area; other shoe modifications). Metatarsal pads or foot orthoses may be utilized. Symptomatic relief may be noted by some patients. Physical therapy has been noted to have a limited role in the treatment of hallux valgus. Local anesthetic and steroid injection into the first metatarsophalangeal (MTP) joint may provide short-term pain relief, but is not considered to be curative (Frontera, et al., 2014; Hecht, et al., 2014). In the case of ulceration, local wound care is provided that may include cleansing, debridement, and dressings.

Surgical Treatment
Goals of surgery should be to relieve pain and to restore normal alignment of the first metatarsal and great toe. Surgical treatment is indicated to relieve signs and symptoms of hallux valgus. Surgery performed for the purpose of improving the appearance of the foot is cosmetic in nature and not medically indicated. The literature documents a vast number of procedures to correct hallux valgus. No one procedure is appropriate for all deformities. The choice of operative procedure depends on the patient’s condition, anatomy, degree of deformity, symptoms and radiographic information. All elements of the deformity, including an increased HV angle, increased IM angle, pronation of great enlarged medial eminence and subluxation of the sesamoids, must be corrected. Surgical options include metatarsophalangeal soft tissue construction, osteotomy of the distal or proximal end of the metatarsal, osteotomy of the cuneiform, arthrodesis of the metatarsophalangeal joint and excisional arthroplasty. There are many different names associated with bunionectomy procedures and, in addition, many variations of these procedures. The IM angle and HV angle are cited in the literature as guidelines for decision making, but it is also reported in the literature that there is potential for the measurement of these angles to vary. This should be taken into consideration when utilizing these measurements for treatment decisions.

Contraindications to surgical treatment include:

- an active infection of the foot, unless correction of hallux valgus deformity is necessary for wound management (e.g., nonhealing ulcer over the medial prominence)
- severe vascular insufficiency

Bunionectomy procedures include, if performed, the following intraoperative component procedures: first metatarsophalangeal joint capsulotomy; arthrotomy with or without removal of loose bodies or bursal tissue, synovectomy, and/or synovial biopsy; resection of medial, dorsomedial, dorsal, and/or dorsolateral bone prominences at the metatarsal head and proximal phalanx base; excision of associated osteophytes; articular shaving or drilling; extensor and/or flexor tenorrhaphy, adductor hallucis tendon transfer or tenotomy, and/or tenolysis; placement of internal fixation; intraoperative supervision and positioning of imaging and/or monitoring equipment by surgeon or assistant; first metatarsophalangeal joint capsule plication and/or repair; closure of surgical site; and the applications of initial dressing, splint, and/or cast (American Medical Association [AMA], 2016).

The major surgical procedures for hallux valgus all include correction of the hallux valgus (i.e., bunion), may also involve tendon and other soft-tissue balancing and/or the removal of one or both sesamoids, the specific procedures also include (AMA, 2016):

- Correction, hallux valgus (bunionectomy), with sesamoidectomy, when performed; with resection of proximal phalanx base, when performed, any method (CPT code 28292). This procedure includes the removal of prominent or hypertrophied bone from the medial aspect of the first metatarsal head (distal metaphysis), and may additionally include the resection of excess bone at the dorsomedial, dorsal, and/or dorsolateral aspect of the metatarsal head and/or base of the proximal phalanx with or without related soft-tissue correction, resection, or release. It may also involve tendon and other soft-tissue balancing; transverse resection of the proximal phalanx base; and/or the removal of one or both sesamoids. The resection of the proximal phalanx base is performed when there is a bunion deformity present, arthritic changes to the first metatarsophalangeal joint, and pain and/or limitation of motion in the joint. The procedure does not include osteotomy or fusion procedures.
• Correction, hallux valgus (bunionectomy), with sesamoidectomy, when performed; with proximal metatarsal osteotomy, any method (CPT code 28295). The procedure is typically performed to correct a moderate-to-severe hallux abductovalgus deformity with an associated high intermetatarsal angle (metatarsus primus varus [adductus]). Modifications to the osteotomy may allow for multiplane corrections of structural deformities within the proximal first metatarsal. It includes the removal of prominent or hypertrophied bone (bunion) from the medial aspect of the first metatarsal head (distal metaphysis) along with proximal first metatarsal osteotomy, and may additionally include the resection of excess bone at the dorsomedial, dorsal, and/or dorsolateral aspect of the metatarsal head, and/or base of the proximal phalanx with or without related soft-tissue correction, resection, or release.

• Correction, hallux valgus (bunionectomy), with sesamoidectomy, when performed; with distal metatarsal osteotomy, any method (CPT code 28296). This procedure is the most commonly performed bunionectomy procedure and is typically performed to correct a mild-to-moderate hallux abductovalgus deformity associated with a mild-to-moderate intermetatarsal angle and/or distal lateral torsional deviation of the metatarsal head. The procedure includes the removal of prominent or hypertrophied bone from the medial aspect of the first metatarsal head along with distal first metatarsal osteotomy, and may additionally include the resection of excess bone at the dorsomedial, dorsal, and/or dorsolateral aspect of the metatarsal head, and/or base of the proximal phalanx with or without related soft-tissue correction, resection, or release.

• Correction, hallux valgus (bunionectomy), with sesamoidectomy, when performed; with proximal phalanx osteotomy, any method (CPT code 28298). The procedure is performed to correct a mild-to-moderate hallux abductovalgus deformity typically associated with a high hallux abductus interphalangeal angle (i.e., a lateral deviation of the hallux due to lateral torsional deformity in the proximal phalanx). Modifications to the orientation of the osteotomy may allow for uni- or multiplane corrections of structural deformities within the proximal phalanx. It includes the removal of prominent or hypertrophied bone from the medial aspect of the first metatarsal head (distal metaphysis) along with proximal phalanx osteotomy to correct the bone orientation, and may additionally include the resection of excess bone at the dorsomedial, dorsal, and/or dorsolateral aspect of the metatarsal head, and/or base of the proximal phalanx with or without related soft-tissue correction, resection, or release.

• Correction, hallux valgus (bunionectomy), with sesamoidectomy, when performed; with double osteotomy, any method (CPT code 28299). The procedure is performed to correct a moderate to severe hallux abductovalgus deformity with associated multilevel first ray deformities, including a mild to high intermetatarsal angle with or without a high hallux abductus interphalangeal angle. Modifications to the osteotomies may allow for multiplane corrections of structural deformities within the first metatarsal or proximal phalanx. It includes the removal of prominent or hypertrophied bone from the medial aspect of the first metatarsal head (distal metaphysis) along with double osteotomies performed within the first ray, and may additionally include the resection of excess bone at the dorsomedial, dorsal, or dorsolateral aspect of the metatarsal head, and/or base of the proximal phalanx with or without related soft-tissue correction, resection, or release. It includes three double osteotomy options: distal first metatarsal osteotomy and proximal phalanx osteotomy; distal first metatarsal osteotomy and proximal first metatarsal osteotomy; or proximal first metatarsal osteotomy and proximal phalanx osteotomy.

**Literature Review**

A randomized controlled trial compared the effectiveness of surgical and orthotic treatments with no treatment (i.e., control group) for patients with hallux valgus (Torkki, et al., 2001). The patients were assigned to surgery (i.e., Chevron procedure) (n=71), orthoses (n=69), or a one-year waiting list (i.e., no treatment control group) (n=69). At 12 months, the surgical group had significantly better scores for pain and disability, footwear problems and self-reported global foot assessment (p<0.01). Eighty-three percent of surgical patients rated their feet better at one year after surgery, compared to 46% of the orthosis group and 24% of the control group. The study concluded that surgery is an effective treatment for moderate, painful hallux valgus and that orthoses provide short-term symptomatic relief.

**Other Related Conditions**
Bunionette/Tailor's Bunion: A bunionette or Tailor's bunion is a painful osseous prominence on the lateral aspect of the head of the fifth metatarsal. Pressure over the lateral aspect of the fifth metatarsal due to a tight shoe, or position of the foot, may lead to development of a bunionette. Nonsurgical treatments include debridement of hyperkeratotic lesions, padding, shoe modifications, oral anti-inflammatory medications, anti-inflammatory injectables, corticosteroid or steroid injections, and orthotics. Surgical treatment is considered when nonoperative treatment can no longer control the symptoms. The aim of surgery is to decrease the width of the foot and the prominence of the bunionette. Surgical treatment includes metatarsal osteotomy, excision of all or part of a metatarsal head and/or shaft.

Other Disorders of the First Metatarsophalangeal (MTP) Joint: Other disorders of first MTP joint that may be associated with hallux valgus include:

- **Hallux Rigidus:** Also referred to as hallux limitus, this is a progressive disorder of the first MTP joint, characterized by restriction or loss of range of motion of this joint. The alignment usually remains normal, with dorsal changes noted, including dorsal bunion. The procedure to correct this condition is usually a cheilectomy, which involves the resection of hypertrophic bony or osteochondral proliferation along the periphery of the articulation.
- **Hallux Varus:** This displacement of the great toe away from the other toes is not common and is usually acquired. Patients presenting with this condition often have a history of first MTP joint or bunion surgery. This is a painful and often progressive deformity. Surgical treatment is dependent on the degree and complexity of the deformity.
- **Sesamoid Disorders:** The cause may be trauma, or this may be associated with other MTP disorders, and onset may be acute or insidious. Radiographs may indicate fracture of the sesamoid. Treatment is dependent on the severity of the condition and other disease process that is present.

Professional Societies/Organizations
American College of Foot and Ankle Surgeons (ACFAS) guideline for diagnosis and treatment of first metatarsophalangeal joint disorders notes that, “When symptoms begin to interfere with a patient's lifestyle, initial treatment (e.g., wider, lower-heeled shoes; bunion pads; ice; and over-the-counter analgesics) is often self-directed. Patients who are unresponsive to the initial treatment or unable to fulfill the self-directed regimen should be directed to a podiatric foot and ankle surgeon for evaluation. Prescription anti-inflammatory nonsteroidal drugs may be indicated for symptomatic arthralgias or bursitis. Nonsurgical alternatives include shoe modifications, with pocketing of the medial shoe contour or wider causal shoes. Although there is no scientific evidence to support the efficacy of orthotic devices in the treatment of hallux valgus, symptomatic relief may be realized by some patients.” (2003).

The ACFAS statement on cosmetic foot surgery notes, that “Surgery performed solely for the purpose of improving the appearance or size of the foot or ankle carries risks without medical benefit, and therefore should not be undertaken.” (2004).

The American Board of Internal Medicine’s (ABIM) Foundation Choosing Wisely® Initiative:
A Choosing Wisely statement from American Orthopaedic Foot & Ankle Society (2014) includes recommendation: “Don’t perform surgery for a bunion or hammertoes without symptoms”. It is noted that foot surgery for cosmetic reasons is not supported by medical research. Symptoms such as pain and limitations of activity are the most common reasons to pursue bunion or hammertoe surgery. Patients having surgery for bunions and hammertoes are at risk for a wide range of complications such as nerve damage, infection, bone healing problems and toe stiffness.

Use Outside of the US
No relevant information

Coding/Billing Information

**Note:** 1) This list of codes may not be all-inclusive.
   2) Deleted codes and codes which are not effective at the time the service is rendered may not be eligible.
Considered Medically Necessary when criteria in the applicable policy statements listed above are met:

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<th>CPT® Codes</th>
<th>Description</th>
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<td>28292</td>
<td>Correction, hallux valgus (bunionectomy), with sesamoidectomy, when performed; with resection of proximal phalanx base, when performed, any method</td>
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<td>Correction, hallux valgus (bunionectomy), with sesamoidectomy, when performed; with distal metatarsal osteotomy, any method</td>
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<td>28297</td>
<td>Correction, hallux valgus (bunionectomy), with sesamoidectomy, when performed; with first metatarsal and medial cuneiform joint arthrodesis, any method</td>
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References


