Clinical Practice Guideline: First Toe Osteotomy

1 2 3

4

Date of Implementation: September 17, 2015

5 **Product:** **Specialty**

6 7 8

9

10

11

12

13

14

15

16

17

18

19

20

GUIDELINES

American Specialty Health – Specialty (ASH) considers services consisting of CPT Code 28310 to be medically necessary for osteotomy of the first toe upon meeting ALL of the following criteria:

- 1. Noted deformity at first toe (acquired deformity of toe(s), unspecified and hallux rigidus (proximal phalanx) (ICD-10 codes M20.20 - M20.22, M20.60 - M20.62))
- 2. Difficulty walking due to pain at first metatarsophalangeal joint or proximal interphalangeal (PIP) joint
- 3. Inability to accommodate or modify footwear to control pain
- 4. Persistent pain and dysfunction
- 5. Failure of at least 1 of the following non-operative treatments
 - Orthotics/bracing
 - Activity modification
 - Shoe modification

21 22

23

CPT CODES AND DESCRIPTIONS

er i codes in de descriti i i orio	
CPT Code	Description
28310	Osteotomy, shortening, angular or rotational correction,
	proximal phalanx, first toe (separate procedure)

24 25

26

27

BACKGROUND

Deformities of the first toe are common conditions presenting to foot and ankle surgeons. Conservative treatment is the first line of care for these deformities. Surgical treatment may be recommended if conservative treatment fails to restore function and relieve pain.

28 29 30

31

32

33

34

35

36

37

38

39

The primary indication for an osteotomy of the hallux proximal phalanx to correct hallux abductovalgus (HAV) deformities is increased hallux interphalangeus. The Akin osteotomy is the typical procedure used to correct these deformities. The Akin is a medial closing wedge osteotomy in the proximal phalanx. An Akin-type osteotomy is usually used as an adjunctive procedure for HAV to correct deformity within the great toe. The Akin procedure can be useful for realigning the metatarsophalangeal joint when first metatarsal procedures and soft tissue balancing are not sufficient treatments (Rettedal & Lowery, 2014). According to Schilde et al. (2021), hallux interphalangeus, as characterized by a high hallux valgus interphalangeal (HVIP) angle, can be addressed with an Akin osteotomy. The Akin, which is usually fixed with a single Kirschner wire or screw, may be all that is needed in a mild deformity with a congruent 1st MTP. More often, the Akin is used adjunctively when there is a component of interphalangeus.

Osteotomy of the hallux proximal phalanx also has application for the treatment of hallux rigidus. Dorsal cheilectomy of the metatarsophalangeal joint combined with a dorsal-based closing wedge osteotomy of the proximal phalanx (i.e., Moberg procedure) has been described as an effective procedure for symptomatic hallux rigidus. Hunt & Anderson (2012) carried out a retrospective study to evaluate the outcomes of dorsal cheilectomy combined with a biplanar closing wedge osteotomy of the proximal phalanx (combining a Moberg osteotomy with an Akin osteotomy) for patients with symptomatic hallux rigidus and hallux valgus interphalangeus (N=35 feet in 34 patients). At an average of 22.5 months of follow-up, 90% of patients reported good or excellent results, with pain relief, improved function, and fewer shoe wear limitations following this procedure. Hallux valgus and hallux interphalangeal angles were radiographically improved, and all osteotomies healed. With the exception of one patient who requested hardware removal, no patients required additional surgical procedures. Dorsal cheilectomy combined with a Moberg-Akin procedure was an effective and durable procedure with minimal morbidity in patients with hallux rigidus combined with hallux valgus interphalangeus.

PRACTITIONER SCOPE AND TRAINING

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

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

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

 Depending on the practitioner's scope of practice, training, and experience, a member's condition and/or symptoms during examination or the course of treatment may indicate the need for referral to another practitioner or even emergency care. In such cases it is prudent for the practitioner to refer the member for appropriate co-management (e.g., to their

primary care physician) or if immediate emergency care is warranted, to contact 911 as appropriate. See the Managing Medical Emergencies (CPG 159 - S) clinical practice guideline for information. References

American College of Ankle and Foot Surgeons (ACFAS) Position statement on cosmetic surgery (2020). Retrieved on March 8, 2023 from: https://www.acfas.org/policy-

advocacy/policy-position-statements/acfas-position-statement-on-cosmetic-surgery

American Medical Association. (current year). Current Procedural Terminology (CPT) Current year (rev. ed.). Chicago: AMA.

Arnold, H. (2008). [The Akin procedure as closing wedge osteotomy for the correction of a hallux valgus interphalangeus deformity]. Operative Orthopadie Traumatologie, 20(6), 477-483. doi: 10.1007/s00064-008-1503-8

Chacon, Y., Fallat, L. M., Dau, N., & Bir, C. (2012). Biomechanical comparison of internal fixation techniques for the Akin osteotomy of the proximal phalanx. The Journal of Foot and Ankle Surgery, 51(5), 561-565. doi: 10.1053/j.jfas.2012.05.001

Hunt, K. J., & Anderson, R. B. (2012). Biplanar proximal phalanx closing wedge osteotomy for hallux rigidus. Foot & Ankle International, 33(12), 1043-1050. doi: 22 Doi: 10.3113/fai.2012.1043 23

Joint Commission International. (2020). Joint Commission International Accreditation Standards for Hospitals (7th ed.): Joint Commission Resources.

Kannegieter, E., & Kilmartin, T. E. (2011). The combined reverse scarf and opening wedge osteotomy of the proximal phalanx for the treatment of iatrogenic hallux varus. Foot (Edinb), 21(2), 88-91. doi: 10.1016/j.foot.2011.01.011

Kitaoka, H. (2013). Master Techniques in Orthopaedic Surgery: The Foot and Ankle: Wolters Kluwer Health.

Rettedal, D., & Lowery, N. J. (2014). Proximal phalangeal osteotomies for hallux abductovalgus deformity. Clinics in Podiatric Medicine and Surgery, 31(2), 213-220. doi: 10.1016/j.cpm.2013.12.003

Roukis, T. S. (2010). Outcomes after cheilectomy with phalangeal dorsiflexory osteotomy for hallux rigidus: a systematic review. The Journal of Foot and Ankle Surgery, 49(5), 479-487. doi: 10.1053/j.jfas.2010.05.006

1

2

3 4 5

6

7

8 9

10 11

12

13

14

15 16

17

18

19 20

21

24

25

26 27

28

29

30 31

32 33

34

35

36

37 38 39

40

41

Sabo, D. (2007). Correction osteotomy of the first phalanx of the great toe (Akin osteotomy). *Interactive Surgery*, 2(1), 66-69.

Schilde, S., Delank, K.-S., Arbab, D., & Gutteck, N. (2021). Minimally Invasive vs Open Akin Osteotomy. Foot & Ankle International, 42(3), 278–286. https://doi.org/10.1177/1071100720962411

7

Thomas, J. L., Blitch, E. L. I. V., Chaney, D. M., Dinucci, K. A., Eickmeier, K., Rubin, L. G., Vanore, J. V. (2009). Diagnosis and Treatment of Forefoot Disorders. Section 1:
Digital Deformities. *The Journal of Foot and Ankle Surgery*, 48(2), 230-238. doi:10.1053/j.jfas.2008.12.003