

1 **Clinical Practice Guideline: Ankle Ligament Repair**

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3 **Date of Implementation: September 17, 2015**

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5 **Product: Specialty**

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8 **GUIDELINES**

9 American Specialty Health – Specialty (ASH) considers procedures consisting of CPT®
10 codes 27695, 27696, and 27698 to be medically necessary for the repair of disrupted ankle
11 ligaments **upon meeting ALL of the following conditions:**

- 12 1. Meeting **at least 1 of the following** indications:
- 13 ○ Positive talar tilt confirmed by either clinical evaluation or radiographic
 - 14 imaging
 - 15 ○ MRI confirmation of ligament disruption
- 16 2. Meeting **at least 2 of the following** indications:
- 17 ○ Positive anterior drawer
 - 18 ○ Functional ankle instability (FAI)
 - 19 ○ History of repeated ankle sprains
 - 20 ○ Inability to walk on uneven terrain without injury/pain/dysfunction
 - 21 ○ Chronic medial/lateral instability and acute 3rd degree ankle sprain:
 - 22 ▪ Sprain of unspecified ligament of ankle - Strain of unspecified muscle and
 - 23 tendon at ankle and foot level, unspecified foot (S93.401A - S93.409S,
 - 24 S96.919A - S96.919S)
 - 25 ▪ Sprain of deltoid ligament of ankle (S93.421A - S93.429S)
 - 26 ▪ Sprain of calcaneofibular ligament of ankle (S93.411A - S93.419S)
 - 27 ▪ Sprain of tibiofibular ligament of ankle (S93.431A - S93.439S)
 - 28 ▪ Strain of Achilles tendon, sprain of other ligament of ankle, and strain of
 - 29 unspecified muscle and tendon at ankle and foot level
 - 30 (S86.011A - S86.019S, S93.491A - S93.499S, S96.919A - S96.919S)
 - 31 ○ Ankle fracture with associated ligamentous disruption:
 - 32 ▪ Fracture of medial malleolus and pilon fracture of tibia for open fracture
 - 33 type I, II, IIIA, IIIB, or IIIC ((S82.51X(B)(C)(E)(F)(H)(J)(M)(N)(Q)(R)(S)
 - 34 --S82.56X(B)(C)(E)(F)(H)(J)(M)(N)(Q)(R)(S),
 - 35 S82.871(B)(C)(E)(F)(H)(J)(M)(N)(Q)(R)(S)--
 - 36 S82.876(B)(C)(E)(F)(H)(J)(M)(N)(Q)(R)(S))
 - 37 ▪ Fracture of lateral malleolus of fibula for closed fracture
 - 38 (S82.61X(A)(D)(G)(K)(P)(S) - S82.66X(A)(D)(G)(K)(P)(S))
 - 39 ▪ Fracture of lateral malleolus of fibula for open fracture type I, II, IIIA, IIIB,
 - 40 or IIIC ((S82.61X(B)(C)(E)(F)(H)(J)(M)(N)(Q)(R)(S)-
 - 41 S82.66X(B)(C)(E)(F)(H)(J)(M)(N)(Q)(R)(S))

- 1 ▪ Bimalleolar fracture of lower leg for closed fracture
2 ((S82.841(A)(D)(G)(K)(P)(S) - S82.846(A)(D)(G)(K)(P)(S))
- 3 ▪ Bimalleolar fracture of lower leg for open fracture type I, II, IIIA, IIIB, or
4 IIIC ((S82.841(B)(C)(E)(F)(H)(J)(M)(N)(Q)(R)(S)
5 - S82.846(B)(C)(E)(F)(H)(J)(M)(N)(Q)(R)(S))
- 6 ▪ Trimalleolar fracture of lower leg for closed fracture
7 ((S82.851(A)(D)(G)(K)(P)(S) - S82.856(A)(D)(G)(K)(P)(S))
- 8 ▪ Trimalleolar fracture of lower leg for open fracture type I, II, IIIA, IIIB, or
9 IIIC (S82.851(B)(C)(E)(F)(H)(J)(M)(N)(Q)(R)(S)
10 - S82.856(B)(C)(E)(F)(H)(J)(M)(N)(Q)(R)(S))
- 11 ▪ Fracture (unspecified or other) of lower end of tibia, physeal fracture of
12 upper and lower end of tibia, and other fractures of lower leg for closed
13 fracture (S82.301(A)(D)(G)(K)(P)(S) - S82.309(A)(D)(G)(K)(P)(S),
14 S82.391(A)(D)(G)(K)(P)(S) - S82.399(A)(D)(G)(K)(P)(S),
15 S82.891(A)(D)(G)(K)(P)(S) - S82.899(A)(D)(G)(K)(P)(S),
16 S89.101(A)(D)(G)(K)(P)(S) - S89.199(A)(D)(G)(K)(P)(S),
17 S89.301(A)(D)(G)(K)(P)(S) - S89.399(A)(D)(G)(K)(P)(S))
- 18 ▪ Unspecified or other fracture of lower end tibia and lower leg for open
19 fracture type I, II, IIIA, IIIB, or IIIC
20 ((S82.301(B)(C)(E)(F)(H)(J)(M)(N)(Q)(R)(S) -
21 S82.309(B)(C)(E)(F)(H)(J)(M)(N)(Q)(R)(S),
22 S82.391(B)(C)(E)(F)(H)(J)(M)(N)(Q)(R)(S) -
23 S82.399(B)(C)(E)(F)(H)(J)(M)(N)(Q)(R)(S),
24 S82.891(B)(C)(E)(F)(H)(J)(M)(N)(Q)(R)(S) -
25 S82.899(B)(C)(E)(F)(H)(J)(M)(N)(Q)(R)(S))
- 26 3. Failure of **ALL of the following** non-operative treatments:
- 27 ○ Rehabilitation
- 28 ○ Taping/bracing
- 29 ○ Immobilization

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31 Tendon graft (CPT® code 20924) may be medically necessary as an adjunct treatment in
32 the surgical repair of chronic ankle instability upon meeting the conditions listed above as
33 applicable. This procedure consists of autogenous graft through separate tendon incision.

CPT® Code	CPT® Code Description
20924	Tendon graft, from a distance (e.g., palmaris, toe extensor, plantaris)
27695	Repair, primary, disrupted ligament, ankle; collateral
27696	Repair, primary, disrupted ligament, ankle; both collateral ligaments
27698	Repair, secondary, disrupted ligament, ankle, collateral (e.g., Watson-Jones procedure)

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BACKGROUND

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CPT® Codes 27695 and 27696 describe surgical repair of a disruption or tear of the medial or lateral collateral ligament. CPT® code 27695 is reported if the medial or lateral collateral ligaments are repaired; whereas 27696 is used if both of the collateral ligaments are repaired during the same operative episode. CPT® code 27698 is reported for secondary repair of a disrupted collateral ligament of the ankle.

Ankle sprains are common musculoskeletal injuries. Of the principle sprain mechanisms, inversion is the most frequent, (i.e., occurring by catching the lateral edge of the forefoot or a landing from a jump onto the lateral aspect of the foot) which first affects the anterior talofibular ligament, and then if the inversion motion continues, the calcaneofibular ligament can be injured. It is essential to understand the injury mechanism for sprains of the talocrural and subtalar joints due to the potential for varied contributing factors. However, repeated sprains with sometimes different mechanisms can make this difficult. Clinical and imaging examinations to analyze all the ligament structures of the ankle as well as the mid- and hindfoot may be helpful in this investigation, but only if medically necessary. (Bonnell et al., 2010).

Rehabilitation is the first line of treatment for persistent ankle sprains, which may include icing, pain medications, nonsteroidal anti-inflammatory drugs, immobilization (i.e., bracing, crutches, casting, or a walking boot), compression wraps, and/or physical therapy, as necessary. For some patients with severe sprains, surgery might be necessary to repair damaged ligaments and other associated structures if indicated. Ankle strengthening exercises following the injury may help prevent recurrence. As a preventative measure to protect against re-injury, ankle braces or taping around the ankle joint are also helpful, especially for those participating in sports.

Surgical treatment for ankle sprains is rare. Surgery is reserved for injuries that fail to respond to nonsurgical treatment and for persistent instability after prolonged rehabilitation and non-surgical treatment. Surgery may include reconstruction involving repair of the torn

1 ligament(s) with sutures or using other ligaments and/or tendons found in the foot and
2 around the ankle to repair the disrupted ligaments for grade III sprains.

3
4 Indications for surgical repair of grade III ankle sprains should be determined on a case-
5 by-case basis following an appropriate trial of conservative care. Peterson et al. (2013)
6 carried out a systematic review of the evidence for the treatment of grade I, II, and II ankle
7 sprains. The authors concluded that the main advantage of surgical ankle ligament repair
8 is that objective instability and recurrence rate was less common when compared with non-
9 operative treatment. Balancing the advantages and disadvantages of surgical and non-
10 surgical treatment, it was concluded that the majority of grades I, II and III lateral ankle
11 sprains can be managed without surgery. An acute reconstruction could be specifically
12 indicated in athletes, because increased objective instability is a predictor for future ankle
13 sprains. Another indication for surgery could be an extensive grade III lesion of all three
14 lateral ankle ligaments with massive hematoma and often fracture.

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16 According to clinical evidence (Pihlajamäki et al., 2010) comparing conservative
17 functional treatment versus surgical interventions for acute grade III (severe) lateral
18 ligament injuries in which physically active males with acute grade III injuries were
19 randomly allocated to surgical ($n = 25$) or functional ($n = 26$) treatment. Long-term follow-
20 up (mean, 14 years) found that both groups had recovered to pre-injury activity level. The
21 prevalence of re-injury was 1 of 15 in the surgical group and 7 of 18 in the functional
22 treatment group. Stress radiographs revealed no difference between groups with anterior
23 drawer or talar tilt tests. Grade II osteoarthritis was observed on magnetic resonance images
24 in 4 of the 15 surgically treated patients and in none of the functionally treated patients.
25 This study concluded that the long-term results of surgical treatment of acute lateral
26 ligament rupture of the ankle are comparable with functional treatment. Surgery appeared
27 to decrease the prevalence of re-injury, potentially at the expense of increasing the risk of
28 developing posttraumatic osteoarthritis.

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30 Patients with a history of repeat ankle sprains may also be candidates for surgical repair.
31 Morelli et al. (2011) carried out a study to clinically and radiologically assess mid- to long-
32 term outcomes of a group of patients treated with a modified Watson-Jones technique for
33 chronic ankle instability ($N=14$). All patients were followed-up at a mean of 10.8 years.
34 No one reported further ankle sprains. Mean Good scale value decreased from 3.7 to 1.6,
35 while the Tegner scale decreased from 6.8 to 5.1; the mean AOFAS score was 92.2. Mean
36 X-ray talar tilt angle was 4.5 degrees (0.1 degrees S/S difference), while mean anterior
37 drawer test measurement was 5.4 mm (0.5 mm S/S difference). The authors concluded that
38 the modified Watson-Jones procedure seems to be a reliable technique in providing
39 satisfactory mid- to long-term clinical and radiological results.

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41 Ankle instability may result from ankle fracture. Rupture of the deltoid ligament in acute
42 ankle fracture is very common. Guo et al. (2021) conducted a meta-analysis to examine

1 deltoid ligament repair and non-repair in acute ankle fracture. A total of 8 comparative
 2 studies involving 388 participants who suffered Weber type B or C ankle fractures were
 3 included in the meta-analysis. The results showed that the post-operative medial clear space
 4 (MCS), final MCS, AOFAS score and rate of complications were statistically superior in
 5 the deltoid ligament repair group. For the visual analogue scale score, there was no
 6 significant difference between the deltoid ligament repair group and the non-repair group.
 7 The authors concluded that repair of the deltoid ligament in patients with acute ankle
 8 fractures might be beneficial to ankle joint stability and assist in improving the quality of
 9 ankle reduction. Repair of ankle ligament following fracture may be appropriate upon
 10 meeting clinical indications.

11 **PRACTITIONER SCOPE AND TRAINING**

12 Practitioners should practice only in the areas in which they are competent based on their
 13 education, training and experience. Levels of education, experience, and proficiency may
 14 vary among individual practitioners. It is ethically and legally incumbent on a practitioner
 15 to determine if they have the knowledge and skills necessary to perform such services and
 16 whether the services are within their scope of practice.
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18
 19 It is best practice for the practitioner to appropriately render services to a member only if
 20 they are trained, equally skilled, and adequately competent to deliver a service compared
 21 to others trained to perform the same procedure. If the service would be most competently
 22 delivered by another health care practitioner who has more skill and training, it would be
 23 best practice to refer the member to the more expert practitioner.
 24

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

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

39 American College of Foot and Ankle Surgeons (ACFAS) Cosmetic Surgery Position
 40 Statement (2020). Retrieved on December 20, 2023 from:
 41 [https://www.acfas.org/policy-advocacy/policy-position-statements/acfas-position-](https://www.acfas.org/policy-advocacy/policy-position-statements/acfas-position-statement-on-cosmetic-surgery)
 42 [statement-on-cosmetic-surgery](https://www.acfas.org/policy-advocacy/policy-position-statements/acfas-position-statement-on-cosmetic-surgery)

- 1 American Medical Association. (current year). Current Procedural Terminology (CPT)
 2 Current year (rev. ed.). Chicago: AMA
 3
- 4 Bonnel, F., Toullec, E., Mabit, C., Tourné, Y., & Sofcot. (2010). Chronic ankle instability:
 5 Biomechanics and pathomechanics of ligaments injury and associated lesions.
 6 *Orthopaedics & Traumatology: Surgery & Research*, 96(4), 424-432. doi:
 7 <http://dx.doi.org/10.1016/j.otsr.2010.04.003>
 8
- 9 Guo, W., Lin, W., Chen, W., Pan, Y., & Zhuang, R. (2021). Comparison of deltoid
 10 ligament repair and non-repair in acute ankle fracture: A meta-analysis of comparative
 11 studies. *PloS one*, 16(11), e0258785. <https://doi.org/10.1371/journal.pone.0258785>
 12
- 13 Hu, C. Y., Lee, K. B., Song, E. K., Kim, M. S., & Park, K. S. (2013). Comparison of bone
 14 tunnel and suture anchor techniques in the modified Brostrom procedure for chronic
 15 lateral ankle instability. *The American Journal of Sports Medicine*, 41(8), 1877-1884.
 16 doi: 10.1177/0363546513490647
 17
- 18 Joint Commission International. (2020). Joint Commission International Accreditation
 19 Standards for Hospitals (7th ed.): Joint Commission Resources
 20
- 21 Martin, R. L., Davenport, T. E., Paulseth, S., Wukich, D. K., Godges, J. J., & Orthopaedic
 22 Section American Physical Therapy Association. (2013). Ankle stability and
 23 movement coordination impairments: ankle ligament sprains. *The Journal of*
 24 *Orthopaedic and Sports Physical Therapy*, 43(9), A1-40. doi: 10.2519/jospt.2013.0305
 25
- 26 Morelli, F., Perugia, D., Vadala, A., Serlorenzi, P., & Ferretti, A. (2011). Modified Watson-
 27 Jones technique for chronic lateral ankle instability in athletes: clinical and radiological
 28 mid- to long-term follow-up. *Foot and Ankle Surgery*, 17(4), 247-251. doi:
 29 10.1016/j.fas.2010.08.006
 30
- 31 Petersen, W., Rembitzki, I. V., Koppenburg, A. G., Ellermann, A., Liebau, C.,
 32 Bruggemann, G. P., & Best, R. (2013). Treatment of acute ankle ligament injuries: a
 33 systematic review. *Archives of Orthopaedic and Trauma Surgery*, 133(8), 1129-1141.
 34 doi: 10.1007/s00402-013-1742-5
 35
- 36 Pihlajamäki, H., Hietaniemi, K., Paavola, M., Visuri, T., & Mattila, V. M. (2010). Surgical
 37 Versus Functional Treatment for Acute Ruptures of the Lateral Ligament Complex of
 38 the Ankle in Young Men: a randomized controlled trial. *The Journal of bone and joint*
 39 *surgery. American volume*, 92(14), 2367–2374

- 1 Song, Y., Li, H., Sun, C., Zhang, J., Gui, J., Guo, Q., Chen, S. (2019). Clinical Guidelines
2 for the Surgical Management of Chronic Lateral Ankle Instability: A Consensus
3 Reached by Systematic Review of the Available Data. *Orthopaedic journal of sports
4 medicine*, 7(9), 2325967119873852. <https://doi.org/10.1177/2325967119873852>
5
- 6 van den Bekerom, M. P., Kerkhoffs, G. M., McCollum, G. A., Calder, J. D., & van Dijk,
7 C. N. (2013). Management of acute lateral ankle ligament injury in the athlete. *Knee
8 Surgery, Sports Traumatology, Arthroscopy*, 21(6), 1390-1395