Cohere Medicare Advantage Policy - Open Meniscus Repair

Clinical Guidelines for Medical Necessity Review

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Effective Date: March 20, 2025

Important Notices

Notices & Disclaimers:

GUIDELINES ARE SOLELY FOR COHERE'S USE IN PERFORMING MEDICAL NECESSITY REVIEWS AND ARE NOT INTENDED TO INFORM OR ALTER CLINICAL DECISION-MAKING OF END USERS.

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Other Notices:

Guideline Information:

Specialty Area: Disorders of the Musculoskeletal System
Guideline Name: Cohere Medicare Advantage Policy - Open Meniscus Repair

Date of last literature review: 3/17/2025
Document last updated: 3/19/2025
Type: [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17 yo)

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Medical Necessity Criteria

Service: Open Meniscus Repair

Benefit Category

Not applicable.

Please Note: This may not be an exhaustive list of all applicable Medicare benefit categories for this item or service.

Related CMS Documents

There are no applicable NCDs and/or LCDs for open meniscus repair. Please refer to the CMS Medicare Coverage Database for the most current applicable CMS National Coverage.

Recommended Clinical Approach

Open meniscus repair is a surgical procedure in which an incision is made behind the collateral ligaments of the knee to repair a peripheral or nearly peripheral tear. While open meniscus repair has almost entirely been replaced by arthroscopic meniscus repair, open repair may still be useful or performed in combination with arthroscopic repair.[1-4]

Evaluation of Clinical Harms and Benefits

Cohere Health uses the criteria below to ensure consistency in reviewing the conditions to be met for coverage of open meniscus repair. This process helps to prevent both incorrect denials and inappropriate approvals of medically necessary services. Specifically, limiting incorrect approvals reduces the risks associated with unnecessary procedures, such as complications from surgery, infections, and prolonged recovery times.

The potential clinical harms of using these criteria may include:

- Meniscus repair failure: A systematic review conducted by Nepple et al (2012) found that open meniscal repair failure rates after five or more years ranged between 16% and 29%.[5] The review found that meniscus retears were particularly common among patients with unstable

knees.[5] A study conducted by Dehaven et al (1995) documented an 18% retear rate among open meniscus repair patients 10 years after their surgery.[6]
- Increased healthcare costs and complications from the inappropriate use of emergency services and additional treatments.

The clinical benefits of using these criteria include:

- Medium and long-term survival rates of repaired menisci: Muellner et al (1999) reviewed the clinical, radiographic, and magnetic resonance imaging results of open meniscal repairs after 12-year follow-ups. The authors found that the repaired menisci had a 91% long-term survival rate.[7] A review of clinical outcomes in open meniscus repair of horizontal tears among young patients, conducted by Pujol et al (2012), found the procedure effective in young and active patients at midterm follow-up. These patients could return to contact sports after 6 months. However, for patients over 30, the functional results of the surgery declined significantly.[8]
- Enhanced overall patient satisfaction and healthcare experience.

This policy includes provisions for expedited reviews and flexibility in urgent cases to mitigate risks of delayed access. Evidence-based criteria are employed to prevent inappropriate denials, ensuring that patients receive medically necessary care. The criteria aim to balance the need for effective treatment with the minimization of potential harms, providing numerous clinical benefits in helping avoid unnecessary complications from inappropriate care.

In addition, the use of these criteria is likely to decrease inappropriate denials by creating a consistent set of review criteria, thereby supporting optimal patient outcomes and efficient healthcare utilization.

Medical Necessity Criteria

Indications

➔ **Open meniscus repair** is considered appropriate if **ANY** of the following is **TRUE**[9-11]:
- ◆ Advanced imaging documentation of a meniscus tear in a young, active patient[12]; **OR**

- The tear is a recurrent tear or failed repair demonstrated on advanced imaging[1]; **OR**
- **ALL** of the following are **TRUE**:
  - The patient has **ANY** of the following advanced imaging findings[1]:
    - Unstable tears, such as bucket handle and double longitudinal tears; **OR**
    - Isolated simple-pattern meniscus tears in stable knees; **OR**
    - Posteromedial and posterolateral root tears; **OR**
    - Longitudinal tears greater than 10 millimeters (mm); **OR**
    - Tears primarily in the vascular zones of the meniscus; **OR**
    - Acute traumatic meniscal tear[1]; **AND**
  - The patient has **ANY** of the following:
    - Mechanical symptoms following an acute tear; **OR**
    - A chronic tear with **ALL** of the following:
      - Persistent mechanical symptoms; **AND**
      - Failure of conservative management (e.g., rest, analgesics, physical therapy, oral or injectable corticosteroids) must be documented for a period of greater than 3 months. Documentation should include detailed evidence of the measures taken, rather than solely a physician's statement.

Non-Indications

➔ **Open meniscus repair** is not considered appropriate if **ANY** of the following is **TRUE**[9]:

- Degenerative tears; **OR**
- Isolated meniscus repair in an unstable knee[13-16]; **OR**
- Osteoarthritis of the knee in the same compartment (moderate, severe, or Kellgren Lawrence grade III or IV).[17,18]

Level of Care Criteria

Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
27403	Arthrotomy with meniscus repair, knee

Disclaimer: G, S, I, and N Codes are non-covered per CMS guidelines due to their experimental or investigational nature.

Medical Evidence

Kopf et al (2020) facilitated an expert consensus on the management of traumatic meniscus tears; using a formal consensus process, the group of surgeons and scientists determined that preservation of the meniscus should be the first line of treatment when possible. The experts also agreed that clinical and radiological long-term outcomes are worse after partial meniscectomy as opposed to meniscus preservation. Finally, it was concluded that meniscal repair types previously considered irreparable should be repaired, including older tears, tears in patients with obesity, long tears, etc.[1]

Maffulli et al (2010) concluded that meniscal tissue should be preserved whenever possible in meniscal tears. When repair is not possible, partial meniscal resection would be indicated, as well as consideration of meniscal transplantation.[2]

Carreau et al (2017) systematically evaluated the literature regarding sub-acute root tears with medial meniscal extrusion in middle-aged patients. Previously, repair was recommended in younger, more active patient populations, though such injuries are more common in the middle-aged. Patients typically present with co-existing arthritis; treatment is based on severity. When there is early or minimal arthritis, root repair can restore meniscal function and improve symptoms.[16]

A systematic review by Peterson et al (2022) examined the long-term results of meniscus repair. The authors reviewed 12 retrospective case series that included either open or arthroscopic meniscus repair and at least 7 years of follow-up data. No statistical difference was found between the failure rates of open repair, arthroscopic inside-out with posterior incisions, or arthroscopic all-inside repair with flexible, non-resorbable implants. However, the authors noted that the failure rate of meniscal repair in studies with children and adolescents was significantly higher than in studies that included only adults.[19]

References

1. Kopf S, Beaufils P, Hirschmann M, et al. Management of traumatic meniscus tears: The 2019 ESSKA meniscus consensus. *Knee Surg Sports Traumatol Arthrosc*. 2020;28(4):1177-1194. doi.org/10.1007/s00167-020-05847-3
2. Maffulli N, Longo U, Campi S, et al. Meniscal tears. *J Sports Med.* 2010;1, 45-54. doi:10.2147/oajsm.s7753
3. DeHaven KE, Arnoczky SP. Meniscal repair: Part I - basic science, indications for repair, and open repair. *JBJS*. 1994 Jan 1;76(1):140-52. PMID: 9097138.
4. Karia M, Ghaly Y, Al-Hadithy N, et al. Current concepts in the techniques, indications and outcomes of meniscal repairs. *Eur J Orthop Surg Traumatol*. 2019 Apr 9;29:509-20. doi:10.1007/s00590-018-2317-5
5. Nepple JJ, Block AM, Eisenberg MT, et al. Meniscal repair outcomes at greater than 5 years: A systematic review and meta-analysis. *J Bone Joint Surg Am*. 2022;104(14):1311-1320. doi:10.2106/JBJS.21.01303
6. DeHaven KE, Lohrer WA, Lovelock JE. Long-term results of open meniscal repair. *Am J Sports Med*. 1995;23(5):524-530. doi:10.1177/036354659502300502
7. Muellner T, Egkher A, Nikolic A, et al . Open meniscal repair: Clinical and magnetic resonance imaging findings after twelve years. *Am J Sports Med*. 1999;27(1):16-20. doi:10.1177/03635465990270011001. Erratum in: *Am J Sports Med* 1999 May-Jun;27(3):379.
8. Pujol N, Bohu Y, Boisrenoult P, et al. Clinical outcomes of open meniscal repair of horizontal meniscal tears in young patients. *Knee Surg Sports Traumatol Arthrosc*. 2013;21(7):1530-1533. doi:10.1007/s00167-012-2099-y
9. Spalding T, Damasena I, Lawton R. Meniscal repair techniques. *Clin Sports Med.* 2020;39:37–56. doi.org/10.1016/j.csm.2019.08.012
10. Ferrari MB, Murphy CP, Gomes JL. Meniscus repair in children and adolescents: A systematic review of treatment approaches, meniscal healing, and outcomes. *J Knee Surg*. 2019 Jun;32(06):490-8. doi: 10.1055/s-0038-1653943
11. Liechti DJ, Constantinescu DS, Ridley TJ, et al. Meniscal repair in pediatric populations: A systematic review of outcomes. *Orthop. J. Sports Med*. 2019 May 13;7(5):2325967119843355. doi: 10.1177/2325967119843355

12. Beaufils P, Pujol N. Management of traumatic meniscal tear and degenerative meniscal lesions: Save the meniscus. *Orthop Traumatol Surg Res.* 2017; 103,(8)S237-S244. doi:10.1016/j.otsr.2017.08.003
13. Stensrud S, Risberg M, Roos E. Knee function and knee muscle strength in middle-aged patients with degenerative meniscal tears eligible for arthroscopic partial meniscectomy. *Br J Sports Med*. 2014;48(9):784-8. doi: 10.1136/bjsports-2012-091540
14. Haviv B, Bronak S, Kosashvili Y, et al. Arthroscopic meniscectomy of traumatic versus atraumatic tears in middle-aged patients: Is there a difference? *Arch Orthop Trauma Surg*. 2016;136:1297–1301. doi: 10.1007/s00402-016-2504-y
15. Beaufils P, Hulet C, Dhénain R, et al. Clinical practice guidelines for the management of meniscal lesions and isolated lesions of the anterior cruciate ligament of the knee in adults. *Orthop Traumatol Surg Res*. 2009;95(6):437-442. doi: 10.1016/j.otsr.2009.06.002
16. Carreau J, Sitton S, Bollier M. Medial meniscus root tear in the middle aged patient: A case based review. *Iowa Orthop J*. 2017;37:123-132
17. Abram S, Beard D, Price A, et al. Arthroscopic meniscal surgery: A national society treatment guideline and consensus statement. *Bone Joint J*. 2019 Jun;101-B(6):652-659. doi:10.1302/0301-620X.101B6.BJJ -2019-0126.R1
18. Chahla J, Hinckel B, Yanke A, et al. An expert consensus statement on the management of large chondral and osteochondral defects in the patellofemoral joint. *Orthop J Sports Med*. 2020 Mar 26;8(3):232596 7120907343. doi:10.1177/2325967120907343
19. Petersen W, Karpinski K, Bierke S, et al. A systematic review about long-term results after meniscus repair. *Arch Orthop Trauma Surg.* 2022 May;142(5):835-44. doi:10.1007/s00402-021-03906-z

Clinical Guideline Revision History/Information

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