



## **Subchondroplasty – Single Service**

*Clinical Guidelines for Medical Necessity Review*

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## Guideline Information:

**Specialty Area:** Diseases & Disorders of the Musculoskeletal System (M00-M99)

**Guideline Name:** Subchondroplasty (Single Service)

**Literature review current through:** 10/12/2023

**Document last updated:** 10/13/2023

**Type:** ☒ Adult (18+ yo) | ☐ Pediatric (0-17yo)

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# Medical Necessity Criteria

## ***Service: Subchondroplasty***

### General Guidelines

- **Units, Frequency, & Duration:** This service is experimental/ investigational.
- **Criteria for Subsequent Requests:** This service is experimental/ investigational.
- **Recommended Clinical Approach:** Subchondroplasty is a novel technique aimed at reducing pain by treating bone lesions caused by knee osteoarthritis and insufficiency fractures. The procedure involves the use of bone substitute material that is injected into areas requiring structural support to the subchondral bone.<sup>1</sup>
- **Exclusions:** This service is experimental/ investigational.

### Medical Necessity Criteria

#### Indications

→ **Subchondroplasty** is considered appropriate if **ANY** of the following is TRUE:

- ◆ Currently, there are no evidence-based indications for this service in the peer-reviewed, published literature.

#### Non-Indications

→ **Subchondroplasty** is not considered appropriate if **ANY** of the following is TRUE:

- ◆ Service is considered experimental/investigational for treating knee osteoarthritis.

### Level of Care Criteria

Outpatient

### Procedure Codes (HCPCS/CPT)

HCPCS/CPT Code	Code Description
0707T	Injection(s), bone-substitute material (e.g., calcium phosphate) into subchondral bone defect (i.e., bone

	marrow lesion, bone bruise, stress injury, microtrabecular fracture), including imaging guidance and arthroscopic assistance for joint visualization
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## Medical Evidence

Di Matteo et al. (2021) performed a systematic review to study the efficacy of intraosseous injections for patients with bone marrow lesions that are impacted by knee osteoarthritis. Twelve studies were identified that used various types of injections. A total of 459 patients were included with one of the three types of injections – calcium phosphate, platelet-rich plasma, and bone marrow concentrate. While injections are minimally invasive and have a low complication rate, the research lacks high-quality evidence to establish support.<sup>2</sup>

Krebs et al. (2020) conducted a small retrospective chart review to determine the outcomes of knee arthroscopy with adjunctive subchondroplasty. These include improvement of self-rated visual analog scale (VAS) pain scores, rate of conversion to arthroplasty, and overall satisfaction following the procedure. While the procedure demonstrated positive outcomes, additional research is needed.<sup>3-4</sup>

### National and Professional Organizations

Currently there are no published guidelines or recommendations regarding subchondroplasty.

## References

1. Randelli P, Compagnoni R, Ferrua P, et al. Efficacy of subchondroplasty in the treatment of pain associated with bone marrow lesions in the osteoarthritic knee. *Orthop J Sports Med.* 2023 May 16;11(5): 23259671231163528. doi: 10.1177/23259671231163528. PMID: 37213661; PMCID: PMC10192663.
2. Di Matteo B, Polignano A, Onorato F, et al. Knee intraosseous injections: A systematic review of clinical evidence of different treatment alternatives. *Cartilage.* 2021 Dec;13(1\_suppl):1165S-1177S. doi: 10.1177/1947603520959403. PMID: 32959675; PMCID: PMC8808871.
3. Krebs NM, Kehoe JL, Van Wagner MJ, et al. The efficacy of subchondroplasty for the treatment of knee pain associated with bone marrow lesions. *Spartan Med Res J.* 2020 Jan 30;4(2):11767. doi: 10.51894/001c.11767. PMID: 33655174; PMCID: PMC7746108.
4. Nairn LN, Subramaniam M, Ekhtiari S, Axelrod DE, Grant JA, Khan M. Safety and early results of Subchondroplasty® for the treatment of bone marrow lesions in osteoarthritis: a systematic review. *Knee Surg Sports Traumatol Arthrosc.* 2021 Nov;29(11):3599-3607. doi: 10.1007/s00167-020-06294-w. Epub 2020 Sep 29. PMID: 32990774.

# Clinical Guideline Revision History/Information

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Review History	