

CMM 312: Abrasion Arthroplasty / Subchondral Drilling / Microfracturing

A diagnosis of a cartilaginous defect qualifying for Microfracture may be made based on history, complaints, physical examination, supportive imaging findings, and direct visualization at arthroscopy or arthrotomy. History, exam and imaging are used to rule out inappropriate lesions and patients for treatment[1]. Knees with symptoms and exam findings localized to the area of lesion and that have failed conservative care are candidates for cartilage preservation. Knees with multifocal lesions, diffuse arthritis, inflammatory arthropathies, ligamentous instability, malalignment and meniscal deficiencies are not [4,5]. Risks are increased by the fact that the procedure is often done in a younger patient population and deterioration of results with subsequent need for further surgery is likely [1]. Surgical infection, bleeding, hemarthrosis, joint stiffness, and damage to neurovascular structures are usual complications. Besides the usual complications of surgery and anesthesia, deterioration of the fibrocartilage repair tissue, cyst formation, subchondral bone damage and hypertrophy, and mid-term decline in clinical outcome can occur [1,2]. Newer procedures are becoming more often applied to these types of knee lesions [5]. Proper procedural selection is needed to obtain the benefit of decreased symptoms and increased function, along with delay of more definitive and costly cartilage surface treatments [3]. Given the potential possibility for significant complications, proper patient selection per EviCore's evidence based guidelines is crucial to minimize the risk benefit ratio and to best ensure patient safety. Although the use of any coverage criteria includes the possible risk of delayed care, EviCore firmly believes the benefits of our evidence based criteria highly outweigh any clinical harms.

1 – Medina, L, et al. Microfracture for the Treatment of Symptomatic Lesions of the Knee: A Survey of International Cartilage Regeneration and Joint Preservation Society. *Cartilage*. 2021; 13 (1): 1148s-1155s.

2 – Kraeutler, MJ, et al. Microfracture Versus Drilling of Articular Cartilage Defects: A Systematic Review of the Basic Science Evidence. *Orthopaedic Journal of Sports Medicine*. August 2020; 8 (8).

3 – Everhart, JS, et al. Cost-efficacy of Knee Cartilage Defect Treatments in the United States. *American Journal of Sports Medicine*. 2020; 48 (1): 242-251.

4 – Berta, A, et al. Clinical experiences with cartilage repair techniques: outcomes, indications, contraindications, and rehabilitation. *Joint Diseases and Related Surgery*. 2015; 26(2): p84-96.

5 – McAdams, T, et al. Articular Cartilage Injury in Athletes. *Cartilage*. July 2010; 1(3): p165-179.