



**KNEE ARTHROSCOPY FOR OSTEOARTHRITIS**

Effective Date: July 1, 2009

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Status: Current

**I. DESCRIPTION**

Osteoarthritis (OA) is a chronic, often painful joint disease and the most common joint disease in the United States affecting more than 20 million people. In OA, the once smooth articular cartilage covering the ends of bones becomes a frayed, rough surface. Joint motion along this exposed surface is painful. Although the etiology of OA is unknown, risk factors include older age, obesity, major trauma to the joint area, and repetitive joint use.

Surgical options for osteoarthritis include arthroscopy, osteotomy, joint fusion, and joint replacement. Arthroscopy allows for direct visualization of the joint and may include lavage or debridement.

A single-center, randomized controlled study (Kirkley, et. al.) failed to show a benefit from arthroscopic surgery for the treatment of moderate to severe osteoarthritis of the knee. Eligible patients for this study were 18 years of age or older with idiopathic or secondary osteoarthritis of the knee with grade 2, 3, or 4 radiographic severity.

The control group (n=86) received optimized physical and medical therapy alone, and the surgical group (n=86) received an identical program of physical and medical therapy, as well as arthroscopic treatment performed within 6 weeks after randomization. The majority of the surgical patients underwent debridement of articular cartilage or meniscal lesions, and their physical and medical therapy was initiated within 7 days after surgery. The patients were evaluated in the clinic 3, 6, 12, 18, and 24 months after the initiation of treatment. The primary outcome was the total Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) score (range, 0 to 2400; higher scores indicate more severe symptoms) after 2 years.

While scores in the surgical group had improved at 3 months to a greater extent than those in the control group, there were no significant differences between the groups in subsequent visits. In addition to WOMAC scores, a broad range of validated patient-reported outcomes was assessed at multiple time points, and none of these instruments found the surgical treatment to be beneficial.

The Kirkley results agree with the findings of a previously published study by Moseley, et. al. In a controlled trial involving patients with OA of the knee, 180



patients were randomly assigned to receive arthroscopic debridement, arthroscopic lavage, or placebo surgery. Patients in the placebo group received skin incisions with a simulated debridement, without insertion of the arthroscope. Pain and function outcomes were assessed at multiple points over 24 months. At no point did either of the intervention groups report less pain or better function than the placebo group.

Englund, et. al. describes common incidental meniscal findings in their review of 991 MRI scans. The prevalence of MRI detected meniscal tear or destruction ranged from 19% among women 50-59 years old to 56% among men 70-90 years old. Sixty-one percent of the patients who had meniscal tears had no pain, aching, or stiffness during the previous month.

Studies on the effectiveness of arthroscopic lavage and/or debridement for OA have variable outcomes and methodological limitations. Improved functioning and pain relief have not been demonstrated in RCTs. Based on lack of evidence of effectiveness, the Centers for Medicare and Medicaid Services issued a noncoverage determination for the following: arthroscopic lavage for OA of the knee, arthroscopic debridement for OA patients presenting with knee pain only, arthroscopic lavage and/ or debridement for severe OA of the knee (severe OA defined as grades III and IV in the Outerbridge\* classification scale). The American Academy of Orthopedic Surgeons recommends against performing arthroscopy with debridement or lavage in patients with a primary diagnosis of symptomatic OA of the knee.

## **II. POLICY/CRITERIA**

- A. Based on a lack of evidence of effectiveness the following procedures are not a covered benefit:
  - 1. Arthroscopic lavage for OA of the knee
  - 2. Arthroscopic debridement for OA of the knee presenting with knee pain only
  - 3. Arthroscopic debridement for severe OA of the knee (Outerbridge classification III or IV)
- B. Arthroscopic debridement, including meniscectomy, is a covered benefit for mild-to-moderate OA of the knee (Outerbridge classification I and II) if both of the following are present:
  - 1. Knee pain AND
  - 2. Mechanical symptoms (e.g. locking, buckling, popping) due to loose bodies or meniscal tears
- C. Arthroscopic meniscal repair or removal is a covered benefit only if mechanical symptoms are present.



\*Outerbridge is the most commonly used clinical scale that classifies the articular degeneration of the knee as follows:

- Grade I: softening or blistering of joint cartilage.
- Grade II: cartilage fragmentation or fissuring in an area <1 cm.
- Grade III: cartilage fragmentation or fissuring in an area >1 cm.
- Grade IV: cartilage erosion down to the bone.

### III. MEDICAL NECESSITY REVIEW

- Prior Authorization Required  
 Retrospective Review (Plan Discretion)

### IV. APPLICATION TO PRODUCTS

Coverage is subject to member's specific benefits. Group specific policy will supersede this policy when applicable.

- ❖ **HMO/EPO:** *This policy applies to insured HMO/EPO plans.*
- ❖ **POS:** *This policy applies to insured POS plans.*
- ❖ **PPO:** *This policy applies to insured PPO plans.*
- ❖ **ASO:** *For self-funded plans, consult individual plan documents. If there is a conflict between this policy and a self-funded plan document, the provisions of the plan document will govern.*
- ❖ **INDIVIDUAL:** *For individual policies, consult the individual insurance policy. If there is a conflict between this medical policy and the individual insurance policy document, the provisions of the individual insurance policy will govern.*
- ❖ **MEDICARE:** *Coverage is determined by the Centers for Medicare and Medicaid Services (CMS).*
- ❖ **MEDICAID:** *Coverage is determined by the Michigan Medicaid Provider Manual and the Michigan Medicaid Fee Schedule at: [http://www.michigan.gov/mdch/0,1607,7-132-2945\\_42542\\_42543\\_42546\\_42551-159815--,00.html](http://www.michigan.gov/mdch/0,1607,7-132-2945_42542_42543_42546_42551-159815--,00.html).*
- ❖ **MICHILD:** *For MICHILD members, this policy will apply unless MICHILD certificate of coverage limits or extends coverage.*

### V. CODING INFORMATION

#### ICD9 Diagnosis Codes

*Non-covered indications for the listed procedures:*

- 715.16 Primary localized osteoarthritis, lower leg  
 715.26 Secondary localized osteoarthritis, lower leg  
 715.36 Localized osteoarthritis not specified whether primary or secondary, lower leg  
 715.96 Osteoarthritis, unspecified whether generalized or localized, lower leg
- 717.5 Derangement of meniscus, not elsewhere classified  
 717.6 Loose body in knee



- 717.9 Unspecified internal derangement of knee
- 719.46 Pain in joint, lower leg
- 719.56 Stiffness of joint, not elsewhere classified, lower leg
- 719.96 Unspecified disorder of lower leg joint

**CPT/HCPCS Codes:**

- 29870 Arthroscopy, knee, diagnostic, with or without synovial biopsy (separate procedure)
- 29877 Arthroscopy, knee, surgical; debridement/shaving of articular cartilage (chondroplasty)

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**CPT/HCPCS Codes:**

- G0289 Arthroscopy, knee, surgical, for removal of loose body, foreign body, debridement/shaving of articular cartilage (chondroplasty) at the time of other surgical knee arthroscopy in a different compartment of the same knee

**VI. REFERENCES**

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<http://www.aaos.org/research/guidelines/OAKrecommendations.pdf>

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