



# CIGNA MEDICAL COVERAGE POLICY

The following Coverage Policy applies to all health benefit plans administered by CIGNA Companies including plans formerly administered by Great-West Healthcare, which is now a part of CIGNA.

**Subject Arthroscopic Lavage and Debridement**

**Effective Date ..... 2/15/2011**  
**Next Review Date ..... 2/15/2013**  
**Coverage Policy Number ..... 0032**

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## Hyperlink to Related Coverage Policies

[Knee Arthroplasty/Replacement](#)

### INSTRUCTIONS FOR USE

Coverage Policies are intended to provide guidance in interpreting certain **standard** CIGNA HealthCare benefit plans. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement (GSA), Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a customer's benefit plan document **always supercedes** the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. Proprietary information of CIGNA. Copyright ©2011 CIGNA

## Coverage Policy

**CIGNA covers arthroscopic debridement and lavage of the knee, in the presence or absence of osteoarthritis, as medically necessary when symptoms such as locking, giving way, or catching of the knee suggest, and imaging studies support a mechanical cause such as:**

- loose bodies
- unstable flaps of articular cartilage
- disruption of the meniscus
- impinging osteophytes

**CIGNA does not cover arthroscopic debridement and lavage as a treatment for osteoarthritis of the knee in the absence of mechanical symptoms because it is not medically necessary.**

## General Background

Osteoarthritis (OA) is a joint condition in which degeneration and loss of articular cartilage occur, leading to pain and deformity, and is the most common form of arthritis. Risk factors for OA include joint injury, history of meniscectomy, obesity, mechanical stress and age. Based on the American College of Rheumatology (ACR) criteria, a patient may be diagnosed with OA of the knee if he or she has pain and at least five of the following:

- age 50 or over

- less than 30 minutes of morning stiffness
- crepitus (i.e., noisy, grating sound) on active motion
- bony tenderness
- bony enlargement
- no palpable warmth of synovium
- erythrocyte sedimentation rate (ESR) < 40 mm/hr
- rheumatoid factor < 1:40
- synovial fluid signs

Progression of this disorder causes prolonged joint stiffness and enlargement, with crepitus occurring as a late manifestation. The joint surface thins; the cartilage softens; and clefts begin to develop, resulting in remodeling, hypertrophy, eventually sclerosis and possibly bone spur development. Movement may then be restricted because of disruption of the contour of the joint. Patchy synovitis and thickening of the joint capsule may result in further movement restriction, or small pieces of bone and cartilage may break off and float inside the joint space, causing further pain and damage.

There is no known cure for OA of the knee. From a treatment perspective, patients with symptoms of short duration and those with mechanical symptoms tend to do well. Patients with roentgenographic malalignment, especially valgus deformities, tend to have poor outcomes.

The treatment for mild, symptomatic OA includes exercise, lifestyle modification, patient education, use of supportive devices and analgesics. If symptoms are unresponsive to this treatment, then the use of nonsteroidal, anti-inflammatory drugs, either oral or intra-articular, may be added to the treatment plan. If conservative treatment fails for the patient with mild to moderate OA, surgical intervention (e.g., arthroscopy with lavage and/or debridement, osteotomy, arthroplasty) may be indicated. Arthroscopic surgery for the patient with loose bodies, flaps of cartilage or disruption in the meniscus that cause mechanical symptoms may result in pain relief and improved function (Dieppe, Brandt, 2003). In these cases, surgery is aimed at treating the mechanical derangement rather than the OA (Richmond, 2008).

Arthroscopic lavage and debridement have been proposed as a treatment for OA of the knee as a method of alleviating pain and symptoms, to improve functioning, and to delay the need for total knee arthroplasty, although the procedure does not alter the natural progression of the disease. Pain alone is not a specific indication for arthroscopic surgery. Knee arthroscopy involves the direct visualization of the joint, using videofiberoptics. It may include both debridement and lavage and can be accomplished with the same surgical equipment, usually as an outpatient procedure.

Lavage with saline solution is used to remove bone or cartilage fragments that may be free-floating within the synovium and causing mechanical problems. It is generally performed to reduce pain and improve function. Research indicates, however, that arthroscopic lavage alone is not effective for patients with OA of the knee.

Debridement is often performed to reduce pain and mechanical symptoms and to improve function. Debridement may include partial synovectomy, partial meniscectomy and resection of plicae, chondroplasty, removal of loose bodies or removal of osteophytes. Debridement, when used alone, typically involves low-volume saline or washout (i.e., lavage).

Recommendations regarding arthroscopy surgery and OA of the knee were provided in an unpublished report for the Centers for Medicare & Medicaid Services Coverage Analysis Group prepared by representatives from the American Academy of Orthopaedic Surgeons (AAOS), the American Association of Hip and Knee Surgeons (AAHKS), the Arthroscopy Association of North America (AANA), the American Orthopaedic Society of Sports Medicine (AOSSM) and the Knee Society. The group reported that with proper selection, patients with early degenerative arthritis and mechanical symptoms can derive significant benefit from arthroscopic surgery. Furthermore, when arthroscopic surgery is indicated, there are well-recognized specific indicators that are predictors of good outcome. The specific indicators include the following:

- x-ray indicating no or minimal degenerative arthritis
- normal alignment or minimal malalignment
- recent onset of symptoms within one year of presentation, along with other indicators

- mechanical symptoms such as locking, catching, giving way or buckling
- loose bodies (bone or cartilaginous)
- unstable flaps of articular cartilage
- symptomatic meniscus tears associated with localized pain
- impinging osteophytes

### **Literature Review**

There is a large body of evidence evaluating the effectiveness of arthroscopic lavage and/or debridement in the published medical literature for the treatment of OA and many authors have reported mixed results (Gibson, et al., 1992; Chang, 1993; Kalunian, et al., 2000; Moseley, et al., 2002; Wai, et al., 2002; Jackson and Dietrichs, 2003; Devin, et al., 2003; Bazian Ltd, 2005; Aaron, et al., 2006; Kirkley, et al., 2008, Laupattarakasem, et al., 2008; Reichenbach, et al., 2010). It has been proposed that the beneficial effect of arthroscopic debridement and/or lavage may be related to the cyclic nature of the symptoms or to the therapeutic benefit of placebo (Richmond, 2008). While authors continue to evaluate clinical outcomes and a variety of arthroscopic procedures, in general, the studies have been small in sample size, lack generalizability, and have other methodological limitations precluding the ability to draw strong conclusions (Dervin, et al., 2003; Bazian Ltd, 2005; Aaron, et al., 2006). Patient selection criteria have not been clearly defined although some authors recommend treatment early in the course of the disease.

Published guidance, technology assessments and textbook sources have supported some efficacy for arthroscopic lavage and debridement as a treatment for OA (NICE, 2007; OHTAC, 2005; Arnold, Arnold, 2005; Dabov, Perez, 2003). Textbook sources state that arthroscopic debridement should be reserved for patients with OA of the knee who have failed a comprehensive medical management program and who have mechanical symptoms with minimal or moderate radiographic changes and little or no angular deformity (Arnold, Arnold, 2005; Dabov, Perez, 2003). However, the Agency for Healthcare Research and Quality (AHRQ) published a clinician's guide (AHRQ, 2009) summarizing the evidence for three treatments of OA of the knee: use of supplemental glucosamine, chondroitin, or both combined; viscosupplementation; and arthroscopic lavage and debridement of the knee joint. After reviewing the available evidence, the AHRQ found that none of the three treatments resulted in clinical meaningful improvement when used as a treatment for OA of the knee. Although not robust, there is some evidence in peer-reviewed literature to support efficacy of arthroscopic lavage and debridement for a specific subset of individuals; arthroscopic lavage alone has not been proven effective for patients with OA of the knee.

### **Professional Societies/Organizations**

In their guideline for treatment of OA of the knee, the American Academy of Orthopaedics recommends against performing arthroscopy with debridement or lavage in patients with a primary diagnosis of symptomatic OA of the knee (AAOS, 2008). This recommendation was based on level I and II evidence which consisted of randomized controlled trials and systematic reviews. The AAOS noted that the evidence reviewed demonstrated a lack of benefit when considering the risk due to surgery. None of the evidence examined by the AAOS specifically included patients who had primary diagnosis of a meniscal tear, loose body or other forms of mechanical derangement who also had a concomitant diagnosis of OA of the knee; therefore their recommendation does not apply to those patients. Although it is based on expert opinion consensus, the AAOS does recommend arthroscopic partial meniscectomy or loose body removal as an option in patients with symptomatic OA of the knee that also have primary signs and symptoms of a torn meniscus and/or a loose body.

The Osteoarthritis Research Society International (OARSI) published evidence-based, expert consensus guidelines for the management of hip and knee OA (Zhang, et al., 2008). The group of experts noted that the roles of joint lavage and arthroscopic debridement in the knee for OA remain controversial—some studies have shown that there is short-term symptom relief while other studies suggest the improvement in symptoms could be attributable to a placebo effect.

The American College of Rheumatology (ACR) published recommendations for the medical management of OA of the hip and knee. The ACR indicate that patients who have failed medical therapy and who have progressive limitation in activities of daily living (ADLs) should be referred to an orthopedic surgeon for evaluation. The recommendations concluded that “No well-controlled trials of arthroscopic debridement with or without

arthroplasty have been conducted, and the utility of this intervention for the treatment of knee OA is unproven” (ACR, 2000). An update to this recommendation has not been posted on the ACR web site.

**Summary**

Evidence in the published, peer-reviewed scientific literature supports arthroscopic debridement as a treatment for those patients with evidence of early degenerative arthritic disease and who have mechanical symptoms or intra-articular loose bodies. Although numerous studies have been done to evaluate the effectiveness of arthroscopic lavage and debridement within the knee for severe osteoarthritis (OA), there is insufficient evidence to support efficacy. Studies conducted to date have been retrospective, consisted of small patient populations, had short-term follow-up, and lacked measurable outcome validation of efficacy. Some studies lacked control groups and stratification of arthritis severity. Based on current evidence, arthroscopic lavage alone has not been shown to be effective in the long-term in reducing pain or improving function for the treatment of OA; and arthroscopic debridement is not effective for patients presenting with OA and knee pain only, or presenting with severe OA.

**Coding/Billing Information**

**Note:** This list of codes may not be all-inclusive.

**Covered when medically necessary:**

<b>CPT<sup>®</sup>* Codes</b>	<b>Description</b>
29877	Arthroscopy, knee, surgical; debridement/shaving of articular cartilage (chondroplasty)

<b>HCPCS Codes</b>	<b>Description</b>
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

<b>ICD-9-CM Diagnosis Codes</b>	<b>Description</b>
717.5	Derangement of meniscus, not elsewhere classified
717.6	Loose body in knee
717.9	Unspecified internal derangement of knee

**Not Medically Necessary/Not Covered:**

<b>ICD-9-CM Diagnosis Codes</b>	<b>Description</b>
715.00	Osteoarthritis, generalized, site unspecified
715.09	Osteoarthritis, generalized, multiple sites
715.10	Osteoarthritis, localized, primary, site unspecified
715.16	Primary localized osteoarthritis, lower leg
715.18	Osteoarthritis, localized, primary, other specified sites
715.20	Osteoarthritis, localized, secondary, site unspecified
715.26	Secondary localized osteoarthritis, lower leg
715.28	Osteoarthritis, localized, secondary, other specified sites
715.30	Osteoarthritis, localized, not specified whether primary or secondary, site unspecified
715.36	Localized osteoarthritis not specified whether primary or secondary, lower leg

715.38	Osteoarthritis, localized, not specified whether primary or secondary, other specified sites
715.80	Osteoarthritis involving, or with mention of more than one site, but not specified as generalized
715.89	Osteoarthritis involving multiple sites, but not specified as generalized
715.90	Osteoarthritis, unspecified whether generalized or localized, unspecified site
715.96	Osteoarthritis, unspecified whether generalized or localized, lower leg
715.98	Osteoarthritis, unspecified whether generalized or localized, other specified sites
719.96	Unspecified disorder of lower leg joint

**\*Current Procedural Terminology (CPT®) © 2010 American Medical Association: Chicago, IL.**

## References

1. Aaron RK, Skolnick AH, Reinert SE, Ciombor DM. Arthroscopic debridement for osteoarthritis of the knee. *J Bone Joint Surg Am.* 2006 May;88(5):936-43.
2. Agency for Healthcare Research and Quality (AHRQ). Three treatments for osteoarthritis of the knee: Evidence shows lack of benefit. Clinician's Guide. Effective Health Care. AHRQ Pub. No. 09-EHC001-3. Rockville, MD: AHRQ; April, 2009. Accessed December 14, 2010. Available at: <http://effectivehealthcare.ahrq.gov/ehc/index.cfm/search-for-guides-reviews-and-reports/index.cfm?keywords=Three+treatments+for+osteoarthritis+of+the+knee&newSearch=true&nocache=1&searchSectionID=&display=search>
3. Allgood P. Arthroscopic lavage for knee osteoarthritis. Wessex Institute for Health Research & Development (University of Southampton) and Bazian, Ltd. *STEER.* 2003;3(3). Accessed December 14, 2010. Available at URL address: <http://www.crd.york.ac.uk/crdweb/ShowRecord.asp?View=Full&ID=32004000058>
4. American Academy of Orthopaedic Surgeons (AAOS). Treatment of osteoarthritis of the knee (non-arthroplasty). December 6, 2008. Accessed December 14, 2010. Available at URL address: <http://www.aaos.org/Research/guidelines/GuidelineOAKnee.asp>
5. American Academy of Orthopaedic Surgeons (AAOS). Osteoarthritis of the knee: treatment options: surgical treatment. Information on the impact and treatment of musculoskeletal conditions. Improving musculoskeletal care in America. Modified 2003 Jan 2. Accessed December 17, 2008. Available at URL address: [http://www.aaos.org/Research/documents/oainfo\\_knee.asp](http://www.aaos.org/Research/documents/oainfo_knee.asp)
6. American Academy of Orthopedic Surgeons. AAOS Clinical guideline on osteoarthritis of the knee (phase II). Rosemont (IL): American Academy of Orthopedic Surgeons; 2003. 15 p.
7. American College of Rheumatology (ACR) Practice guidelines. Recommendations for the medical management of osteoarthritis of the hip and knee: 2000 update. © 2010. Accessed December 14, 2010. Available at URL address: <http://www.rheumatology.org/publications/guidelines/index.asp?aud=mem>
8. Arnold WJ, Arnold EL. Arthroscopic Debridement. In: Harris ED, Budd RC, Genovese MC, Firestein GS, Sargent JS, Sledge CB, editors. *Harris: Kelley's Textbook of Rheumatology*, 7<sup>th</sup> ed. CH 48. Arthroscopy. Copyright © 2005 Saunders.
9. Bazian Ltd. Arthroscopic lavage for osteoarthritis of the knee. *Evidence-based Healthcare and Public Health.* 2005 Jun;9(3):192-96.
10. Chang RW, Falconer J, Stulberg SD, Arnold WJ, Manheim LM, Dyer AR. A randomized, controlled trial of arthroscopic surgery versus closed-needle joint lavage for patients with osteoarthritis of the knee. *Arthritis Rheum.* 1993 Mar;36(3):289-96.

11. Conditions primarily affecting peripheral joints. In: Ruddy S, Harris E, Sledge C. Kelly's textbook of rheumatology. 6<sup>th</sup> ed. Philadelphia, PA: W.B. Saunders; 2001. p. 628- 48.
12. Dabov G, Perez EA. Osteoarthritis. In: Canale T, editor. Campbell's operative orthopedics. 10<sup>th</sup> ed. CH 25 Miscellaneous nontraumatic disorders. Copyright 2003 Mosby Inc.
13. Day B. The indications for arthroscopic debridement for osteoarthritis of the knee. *Orthop Clin North Am.* 2005 Oct;36(4):413-7.
14. Dervin GF, Steill IG, Rody K, Grabowski J. Effect of arthroscopic debridement for osteoarthritis of the knee on health-related quality of life. *J Bone Joint Surg Am.* 2003 Jan;85-A(1):10-9.
15. Dieppe P, Brandt KD. What is important in treating osteoarthritis? Whom should we treat and how should we treat them? Treating osteoarthritis: biomechanical or biochemical targets? *Rheum Dis Clin North Am.* Nov 2003;29(4):687-716.
16. Forster MC, Straw R. A prospective randomized trial comparing intra-articular Hyalgan injection and arthroscopic washout for knee osteoarthritis. *The Knee.* 2003 Sep;10(3):291-3.
17. Gibson JN, White MD, Chapman VM, Strachan RK. Arthroscopic lavage and debridement for osteoarthritis of the knee. *J Bone Joint Surg Br.* 1992 Jul;74(4):534-7.
18. Hitzeman N, Masley C. Arthroscopic surgery for knee osteoarthritis. *Am Fam Physician.* 2008 Aug;78(3):331-2.
19. Jackson RW, Dietrichs C. The results of arthroscopic lavage and debridement of osteoarthritic knees based on the severity of degeneration: a 4 to 6 year symptomatic follow-up. *Arthroscopy.* 2003 Jan;19(1):13-20.
20. Kalunian KC, Moreland LW, Klashman DJ, Brion PH, Concoff AL, Myers S, et al.. Visually-guided irrigation in patients with early knee osteoarthritis: a multicenter randomized, controlled trial. *Osteoarthritis Cartilage.* 2000 Nov;8(6):412-8.
21. Kirkley A, Birmingham TB, Litchfield RB, Giffin JR, Willits KR, Wong CJ, Feagan BG, Donner A, Griffin SH, D'Ascanio LM, Pope JE, Fowler PJ. A randomized trial of arthroscopic surgery for osteoarthritis of the knee. *N Engl J Med.* 2008 Sep 11;359(11):1097-107.
22. Laupattarakasem W, Laopaiboon M, Laupattarakasem P, Sumananont C. Arthroscopic debridement for knee osteoarthritis. *Cochrane Database Syst Rev.* 2008 Jan 23;(1):CD005118.
23. Lützner J, Kasten P, Günther KP, Kirschner S. Surgical options for patients with osteoarthritis of the knee. *Nat Rev Rheumatol.* 2009;5(6):309-316.
24. Marx RG. Arthroscopic surgery for osteoarthritis of the knee? *N Engl J Med.* 2008 Sep 11;359(11):1169-70.
25. Moseley JB, O'Malley K, Peterson NJ, Menke TJ, Brody BA, Huykendall DH, et al. A controlled trial of arthroscopic surgery for osteoarthritis of the knee. *N Engl J Med.* 2002 Jul;347(2):81-8.
26. National Institute for Health and Clinical Excellence. Arthroscopic knee washout, with or without debridement, for the treatment of osteoarthritis (interventional procedures second consultation). April 2007. Accessed December 14, 2010. Available at URI address: <http://www.nice.org.uk/guidance/index.jsp?action=article&r=true&o=31722>
27. Ontario Health Technology Advisory Committee (OHTAC). Arthroscopic lavage and debridement for osteoarthritis of the knee. Health technology literature review. September 2005. Accessed December 14, 2010. Available at URL address: <http://www.search.gov.on.ca/FSS/ProcessSearch.do>

28. Reichenbach S, Rutjes AWS, Nüesch E, Trelle S, Jüni P. Joint lavage for osteoarthritis of the knee. *Cochrane Database of Systematic Reviews* 2010, Issue 5. Art. No.: CD007320.
29. Richmond JC. Surgery for osteoarthritis of the knee. *Rheum Dis Clin North Am.* 2008 Aug;34(3):815-25.
30. Roddy E, Doherty M. Guidelines for management of osteoarthritis published by the American College of Rheumatology and the European League Against Rheumatism: why are they so different? *Rheum Dis Clin North Am.* 2003 Nov;29(4):717-31.
31. Siparsky P, Ryzewicz M, Peterson B, Bartz R. Arthroscopic treatment of osteoarthritis of the knee: are there any evidence-based indications? *Clin Orthop Relat Res.* 2007 Feb;455:107-12.
32. Smith MD, Wetherall M, Darby T, Esterman A, Slavotinek J, Roberts-Thomson P, et al. A randomized placebo-controlled trial of arthroscopic lavage versus lavage plus intra-articular corticosteroids in the management of symptomatic osteoarthritis of the knee. *Arthroscopy.* 2003 Jan;19 (1):13-20.
33. Treatment of articular cartilage defects. In: DeLee JC, Drez D, Miller MD, editors. *DeLee and Drez's orthopaedic sports medicine.* 2<sup>nd</sup> ed. Philadelphia, PA: W.B. Saunders; 2003. p. 1179-83.
34. Van Oosterhout M, Sont JK, Bajema IM, Breedveld FC, Van Laar JM. Comparison of efficacy of arthroscopic lavage plus administration of corticosteroids, arthroscopic lavage plus administration of placebo, and joint aspiration plus administration of corticosteroids in arthritis of the knee: A randomized controlled trial. *Arthritis Rheum.* 2006 Nov 30;55(6):964-970.
35. Wai EK, Kreder HJ, Williams JI. Arthroscopic debridement of the knee for osteoarthritis in patients fifty years of age or older: utilization and outcomes in the Province of Ontario. *J Bone Joint Surg Am.* 2002 Jan;84-A(1):17-22.
36. Wu CW, Kalunian KC. New developments in osteoarthritis. *Clin Geriatr Med.* 2005 Aug;21(3):589-601,vii.
37. Zhang W, Moskowitz RW, Nuki G, Abramson S, Altman RD, Arden N, et al. OARSI recommendations for the management of hip and knee osteoarthritis, Part II: OARSI evidence-based, expert consensus guidelines. *Osteoarthritis Cartilage.* 2008 Feb;16(2):137-62.

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## Policy History

<b>Pre-Merger Organizations</b>	<b>Last Review Date</b>	<b>Policy Number</b>	<b>Title</b>
CIGNA HealthCare	2/15/2008	0032	Arthroscopic Lavage and Debridement of the Knee for the Treatment of Osteoarthritis and Other Knee

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