



# Lumetra

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## Notice of Independent Review Decision

**DATE OF REVIEW:** 02/25/09

**IRO CASE #:**

### **DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE**

Bilateral Knee arthroplasty

### **A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION**

Certified by the American Board of Orthopaedic Surgery

### **REVIEW OUTCOME**

Upon independent review the reviewer finds that the previous adverse determination should be:

- Upheld (Agree)
- Overturned (Disagree)
- Partially Overturned (Agree in part/Disagree in part)

Injury date	Claim #	Review Type	ICD-9 DSMV	HCPCS/ NDC	Upheld/ Overturned
		Prospective		27447	Upheld

### **INFORMATION PROVIDED TO THE IRO FOR REVIEW**

Determination letters dated 1/28/09 and 1/2/09

Physician notes dated 2/10/09, 1/12/09, 11/19/08, 8/26/08, 7/9/08, 6/23/08,  
5/28/08, 5/21/08, 5/14/08, 4/29/08

MRI reports-right knee dated 11/29/06 and 3/21/07, left knee dated 3/21/07 and  
3/28/06

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**PATIENT CLINICAL HISTORY:**

The claimant is reported to have sustained work related injuries to the bilateral knees on xx/xx/xx, after slipping water and falling on both knees. The claimant subsequently underwent right knee arthroscopy in 8/2006, and left knee arthroscopy in 2007. The claimant underwent laparoscopic banding on 2/28/08, secondary to morbid obesity, and a body mass index of greater than 40. MRI of the bilateral knees was performed on 3/21/07. The left knee has evidence of tricompartmental osteoarthritis, which is graded as moderate to severe, with medial joint compartment changes. There is grade III chondromalacia of the patella and mild to moderate simple joint effusion. There are tears of the posterior horn and body of the medial meniscus, and a ruptured Baker cyst. Right knee MRI revealed persistent prominent medial joint compartmental degenerative changes, with marrow edema identified on both sides of the articular surface, with tibial more than femoral, as well as diffuse prominent medial bowing of the medial collateral ligament, which is otherwise intact. A moderate simple joint effusion and a grade IV chondromalacia patella were noted. There was no evidence of residual meniscal tear by MRI when compared to prior study dated 11/29/06. Radiographs of the knees revealed complete loss of medial joint space and medial subluxation of the femur and tibia on the right, and less than 1mm of retained medial joint space on the left. The claimant has undergone conservative treatment consisting of activity modifications, oral medications, and Synvisc injections. The claimant is reported to have continued increasing pain and dysfunction. Most recent clinical examination dated 2/10/09 indicates that the patient has increased swelling in both knees. Current medications include Ultram ER and Voltaren gel. On physical examination, the claimant is 5'2" tall and weighs 235 pounds, and has a BMI of 42.98. The claimant is reported to be well developed and morbidly obese, and has difficulty with transitional movements. On examination of the right knee, genu varus is noted, effusion is present, and there is tenderness medially. Active extension is 7 degrees, active flexion 110 degrees. Apley's compression test is positive medially. McMurray's cannot be performed secondary to limited range of motion. Valgus test is positive with grade I laxity. Examination of the left lower extremity noted genu varus, healed incisions, modest effusion, tenderness along the medial joint line, and over the anterior knee. Range of motion is 5 degrees. Extension/flexion is 116 degrees. Apley's test is positive. Valgus stress test is positive. Radiographs indicate complete loss of the medial joint space, with further subluxation of the joint, which has progressed since the last films. Kellgren-Lawrence grade V changes of osteoarthritis. Left knee shows complete loss of medial joint space and subluxation of femur on the tibia with Kellgren-

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Lawrence grade 4 changes of osteoarthritis. The claimant subsequently was recommended to undergo arthroplasty of the bilateral knees.

**ANALYSIS AND EXPLANATION OF THE DECISION INCLUDING CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION**

In the Reviewer's opinion, this claimant does not meet specific criteria set forth by the Official Disability Guidelines. The ODG requires a patient to have failed conservative treatment consisting of oral medications, Visco supplementation, or steroid injections. The patient must have limited range of motion and nighttime joint pain, and no pain relief with conservative treatment. The patient must be over 50 years of age and have a BMI of less than 35, and have radiographic evidence of osteoarthritis on standing x-ray or arthroscopy. The records indicate the claimant meets all criteria, with the exception of age and body mass index. Therefore, the request would not be considered medically necessary.

Reference

ODG Knee joint replacement:

Recommended as indicated below. Total hip and total knee arthroplasties are well accepted as reliable and suitable surgical procedures to return patients to function. The most common diagnosis is osteoarthritis. Overall, total knee arthroplasties were found to be quite effective in terms of improvement in health-related quality-of-life dimensions, with the occasional exception of the social dimension. Age was not found to be an obstacle to effective surgery, and men seemed to benefit more from the intervention than did women. ([Ethgen, 2004](#)) Total knee arthroplasty was found to be associated with substantial functional improvement. ([Kane, 2005](#)) Navigated knee replacement provides few advantages over conventional surgery on the basis of radiographic end points. ([Bathis, 2006](#)) ([Bauwens, 2007](#)) The majority of patients who undergo total joint replacement are able to maintain a moderate level of physical activity, and some maintain very high activity levels. ([Bauman, 2007](#)) Functional exercises after hospital discharge for total knee arthroplasty result in a small to moderate short-term, but not long-term, benefit. In the short term physical therapy interventions with exercises based on functional activities may be more effective after total knee arthroplasty than traditional exercise programs, which concentrate on isometric muscle exercises and exercises to increase range of motion in the joint. ([Lowe, 2007](#)) The safety of simultaneous bilateral total knee replacement remains controversial. Compared with staged bilateral or unilateral total knee

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replacement, simultaneous bilateral total knee replacement carries a higher risk of serious cardiac complications, pulmonary complications, and mortality. ([Restrepo, 2007](#)) Unicompartmental knee replacement is effective among patients with knee OA restricted to a single compartment. ([Zhang, 2008](#)) Accelerated perioperative care and rehabilitation intervention after hip and knee arthroplasty (including intense physical therapy and exercise) reduced mean hospital length of stay (LOS) from 8.8 days before implementation to 4.3 days after implementation. ([Larsen, 2008](#)) After total knee arthroplasty (TKA) for osteoarthritis of the knee, obese patients fare nearly as well as their normal-weight peers. A British research team reports that higher BMI (up to 35) should not be a contraindication to TKA, provided that the patient is sufficiently fit to undergo the short-term rigors of surgery. TKA also halts the decline and maintains physical function in even the oldest age groups (> 75 years). ([Cushnaghan, 2008](#)) In this RCT, perioperative celecoxib (Celebrex) significantly improved postoperative resting pain scores at 48 and 72 hrs, opioid consumption, and active ROM in the first three days after total knee arthroplasty, without increasing the risks of bleeding. The study group received a single 400 mg dose of celecoxib, one hour before surgery, and 200 mg of celecoxib every 12 hours for five days. ([Huang, 2008](#)) Total knee arthroplasty (TKA) not only improves knee mobility in older patients with severe osteoarthritis of the knee, it actually improves the overall level of physical functioning. Levels of physical impairment were assessed with three tools: the Nagi Disability Scale, the Instrumental Activities of Daily Living Scale (IADL) and the Activities of Daily Living (ADL) Scale. Tasks on the Nagi Disability Scale involve the highest level of physical functioning, the IADL an intermediate level, and the ADL Scale involves the most basic levels. Statistically significant average treatment effects for TKA were observed for one or more tasks for each measure of physical functioning. The improvements after TKA were "sizeable" on all three scales, while the no-treatment group showed declining levels of physical functioning. ([George, 2008](#))

#### **ODG Indications for Surgery<sup>™</sup> -- Knee arthroplasty:**

**Criteria** for knee joint replacement (If only 1 compartment is affected, a unicompartmental or partial replacement is indicated. If 2 of the 3 compartments are affected, a total joint replacement is indicated.):

- 1. Conservative Care:** Medications. AND (Visco supplementation injections OR Steroid injection). PLUS
- 2. Subjective Clinical Findings:** Limited range of motion. AND Nighttime joint pain. AND No pain relief with conservative care. PLUS
- 3. Objective Clinical Findings:** Over 50 years of age AND Body Mass Index of less than 35. PLUS
- 4. Imaging Clinical Findings:** Osteoarthritis on: Standing x-ray. OR Arthroscopy.

([Washington, 2003](#)) ([Sheng, 2004](#)) ([Saleh, 2002](#)) ([Callahan, 1995](#))

**A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR  
OTHER CLINICAL BASIS USED TO MAKE THE DECISION:**

- ACOEM- AMERICAN COLLEGE OF OCCUPATIONAL & ENVIRONMENTAL MEDICINE UM KNOWLEDGEBASE
- AHCPR- AGENCY FOR HEALTHCARE RESEARCH & QUALITY GUIDELINES
- DWC- DIVISION OF WORKERS COMPENSATION POLICIES OR GUIDELINES
- EUROPEAN GUIDELINES FOR MANAGEMENT OF CHRONIC LOW BACK PAIN
- INTERQUAL CRITERIA
- MEDICAL JUDGEMENT, CLINICAL EXPERIENCE AND EXPERTISE IN ACCORDANCE WITH ACCEPTED MEDICAL STANDARDS
- MERCY CENTER CONSENSUS CONFERENCE GUIDELINES
- MILLIMAN CARE GUIDELINES
- ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES
- PRESSLEY REED, THE MEDICAL DISABILITY ADVISOR
- TEXAS GUIDELINES FOR CHIROPRACTIC QUALITY ASSURANCE & PRACTICE PARAMETERS
- TEXAS TACADA GUIDELINES
- TMF SCREENING CRITERIA MANUAL
- PEER REVIEWED NATIONALLY ACCEPTED MEDICAL LITERATURE (PROVIDE A DESCRIPTION)
- OTHER EVIDENCE BASED, SCIENTIFICALLY VALID, OUTCOME FOCUSED GUIDELINES (PROVIDE A DESCRIPTION)