

MEDICAL POLICY

MEDICAL POLICY DETAILS	
Medical Policy Title	Hip Arthroplasty
Policy Number	7.01.96
Category	Technology Assessment
Original Effective Date	06/21/18
Committee Approval Date	12/20/18, 06/20/19, 12/19/19, 12/17/20, 04/15/21, 04/21/22, 04/20/23, 10/17/24
Current Effective Date	02/01/25
Archived Date	N/A
Archive Review Date	N/A
Product Disclaimer	<ul style="list-style-type: none"> Services are contract dependent; if a product excludes coverage for a service, it is not covered, and medical policy criteria do not apply. If a commercial product (including an Essential Plan or Child Health Plus product), medical policy criteria apply to the benefit. If a Medicaid product covers a specific service, and there are no New York State Medicaid guidelines (eMedNY) criteria, medical policy criteria apply to the benefit. If a Medicare product (including Medicare HMO-Dual Special Needs Program (DSNP) product) covers a specific service, and there is no national or local Medicare coverage decision for the service, medical policy criteria apply to the benefit. If a Medicare HMO-Dual Special Needs Program (DSNP) product DOES NOT cover a specific service, please refer to the Medicaid Product coverage line

POLICY STATEMENT

Partial Hip Replacement:

- I. Based upon our criteria and assessment of the peer-reviewed literature, partial hip replacement has been medical proven to be effective and, therefore, is considered **medically necessary**, for **ANY** of the following conditions when **ALL** of the associated criteria have been met:
- Femoral head/neck fracture is present, and imaging shows a fracture of the femoral head or femoral neck;
 - Conservative management or surgical fixation is not considered a reasonable option;
 - Avascular necrosis (AVN), with imaging that shows AVN with collapse of the femoral head and symptoms include **BOTH** of the following:
 - Function-limiting pain at short distances (e.g., walking less than ¼ mile, limiting activity to two (2) city blocks, the equivalent to walking the length of a shopping mall) for at least three months' duration; **and** *
*Criteria exception: Three (3) months of function-limiting pain is not required when the medical record clearly documents why provider-directed non-surgical management is inappropriate.
 - Loss of hip function that interferes with the ability to carry out age-appropriate activities of daily living the demands of employment;
- AND**
- Failure of at least three (3) months of provider-directed non-surgical management. *
*Criteria exception: Three (3) months of provider-directed non-surgical management is not required when the medical record clearly documents why. Provider-directed non-surgical management is inappropriate.
- II. Based upon our criteria and assessment of the peer-reviewed literature, partial hip replacement does not improve individual outcomes and, therefore, is considered **not medically necessary** for **ANY** other indication, or condition, or when **ANY** of the following are present:
- Active local or systemic infection;
 - Vascular insufficiency, significant muscular atrophy of the leg, or neuromuscular disease severe enough to compromise implant stability or post-operative recovery;

Medical Policy: HIP ARTHROPLASTY

Policy Number: 7.01.96

Page: 2 of 7

- C. Charcot joint; **or**
- D. Inflammatory arthropathy affecting both the femoral head and acetabulum.

Total Hip Replacement:

III. Based upon our criteria and assessment of the peer-reviewed literature, total hip replacement has been medical proven to be effective and, therefore, is considered **medically necessary**, for **ANY** of the following conditions when **ALL** of the associated criteria have been met:

- A. Femoral Head/Neck Fracture
 - 1. Imaging shows a fracture of the femoral head or femoral neck; **and**
 - 2. Conservative management or surgical fixation is not considered a reasonable option;
- B. Osteoarthritis, Avascular Necrosis (AVN), Inflammatory Arthropathy imaging shows **ANY** of the following findings:
 - 1. Tönnis grade two (2) or three (3) osteoarthritis;
 - 2. Avascular necrosis with collapse of the femoral head, **or**
 - 3. Inflammatory arthropathy affecting both the femoral head and acetabulum with joint space narrowing;**AND**
 - 1. Symptoms include **BOTH** of the following:
 - a. Function-limiting pain at short distances (e.g., walking less than ¼ mile, limiting activity to two city blocks, the equivalent to walking the length of a shopping mall) for at least three (3) months duration;*
 - *Criteria exception: Three (3) months of function-limiting pain is not required when the medical record clearly documents why provider-directed non-surgical management is inappropriate.
 - and**
 - b. Loss of hip function which interferes with the ability to carry out age-appropriate activities of daily living and/or demands of employment;

AND

- 1. Failure of at least three (3) months of provider-directed non-surgical management; *
- *Criteria exception: Three (3) months of provider-directed non-surgical management is not required when the medical record clearly documents why provider-directed non-surgical management is inappropriate.

IV. Based upon our criteria and assessment of the peer-reviewed literature, a total hip replacement does not improve individual outcomes and, therefore, is considered **not medically necessary** for **ANY** other indication, condition, or when **ANY** of the following are present:

- A. The individual has an active local or systemic infection;
- B. There is evidence of vascular insufficiency, significant muscular atrophy of the leg, or neuromuscular disease severe enough to compromise implant stability or post-operative recovery; **or**
- C. The individual is undergoing dialysis and on a renal transplant list.

V. Based upon our criteria and assessment of the peer-reviewed literature, simultaneous, bilateral total hip arthroplasty is associated with an increased risk of serious complications (e.g., cardiac complications, pulmonary complications, and mortality) and, therefore, is considered **not medically necessary**.

Revision of Hip Replacement:

VI. Based upon our criteria and assessment of the peer-reviewed literature, revision of hip replacement –partial or total – has been medically proven to be effective and, therefore, is considered **medically necessary** for an individual who has previously undergone a partial or total hip replacement, when **ANY** of the following post-operative criteria has been met:

- A. Presence of **ANY** of the following:
 - 1. Recurrent prosthetic dislocation/subluxation not responsive to a reasonable course of nonsurgical care;
 - 2. Instability of the implant (e.g., disassembly, modular neck failure);
 - 3. Aseptic loosening;

Medical Policy: HIP ARTHROPLASTY

Policy Number: 7.01.96

Page: 3 of 7

4. Periprosthetic infection;
 5. Periprosthetic fracture;
 6. Leg length discrepancy;
 7. Osteolysis without eccentric wear (wear of elevated rim liner without wear superiorly); **or**
 8. Elevated serum metal levels as diagnosis for adverse local tissue reaction (ALTR) secondary to corrosion;
- OR**

- B. Unexplained, function-limiting pain at short distances (e.g., walking less than ¼ mile, limiting activity to two (2) city blocks, the equivalent to walking the length of a shopping mall) for greater than six (6) months that is unresponsive to provider-directed, non-surgical management.

VII. Based upon our criteria and assessment of the peer-reviewed literature, revision of hip replacement has not been medically proven to be effective and, therefore, is considered **not medically necessary** for any other indication or condition.

DESCRIPTION

Total hip replacement is a surgical technique in which the femoral head and neck are removed, and the femoral canal (marrow space) is reamed out. The damaged hip joint is replaced with an artificial prosthesis composed of two or three different components: (1) the head that replaces the original femoral head; (2) the femoral component (a metal stem placed into the femur); and (3) the acetabular component, which is implanted into the acetabulum. The stem may be secured using bone cement or press-fit for the bone to grow into it.

The Tonnis Classification System is commonly used to describe the presence of osteoarthritis in the hips, with grading as follows:

- I. Grade 0: No signs of osteoarthritis.
- II. Grade 1: Sclerosis of the joint, with slight joint space narrowing and osteophyte formation and no or slight loss of femoral head sphericity.
- III. Grade 2: Small cysts in the femoral head or acetabulum, with moderate joint space narrowing and moderate loss of femoral head sphericity.
- IV. Grade 3: Large cysts in the femoral head or acetabulum, severe joint space narrowing or obliteration of the joint space, and severe deformity and loss of sphericity of the femoral head.

Revision of hip replacement (partial or total) involves surgical reconstruction or replacement due to failure or complications of previous hip replacement.

Non-surgical management with regard to the treatment of hip osteoarthritis is defined as any provider-directed, non-surgical treatment that has been demonstrated in the scientific literature to be efficacious and/or is considered reasonable care in the treatment of hip pain from osteoarthritis. The types of treatment can include but are not limited to relative rest/activity modification, weight loss, supervised physiotherapy modalities and therapeutic exercises, oral prescription and non-prescription medications, assistive devices (e.g., cane, crutches, walker, wheelchair), and/or intra-articular (i.e., steroid) injections.

RATIONALE

In a meta-analysis, Smith and colleagues (2010) compared the clinical and radiological outcomes and complication rates of hip resurfacing (HRS) and total hip arthroplasty (THA). A systematic review was undertaken of all published (Medline, CINAHL, AMED, EMBASE) and unpublished or gray literature research databases up to January 2010. Clinical and radiological outcomes, as well as complications of HRS, were compared to those of THA, using risk ratio, mean difference, and standardized mean difference statistics. Studies were critically appraised using the CASP appraisal tool. A total of 46 studies were identified from 1,124 citations. These included 3,799 HRSs and 3,282 THAs. On meta-analysis, functional outcomes for subjects following HRS were better than or the same as for subjects with a THA, but there were statistically significant increases in incidence of heterotopic ossification, aseptic loosening, and revision surgery with HRS, compared to THA. The evidence base showed a number of methodological inadequacies, such as the limited use of power calculations and poor or absent blinding of both patients and assessors, possibly giving rise to assessor bias. The

Medical Policy: HIP ARTHROPLASTY

Policy Number: 7.01.96

Page: 4 of 7

authors concluded that, on the basis of the current evidence base, HRS may have better functional outcomes than THA, but the increased risks of heterotopic ossification, aseptic loosening, and revision surgery following HRS indicate that THA is superior in terms of implant survival.

In a 2019 retrospective cohort study, Inoue et al. compared post-operative complications and survivorship of total hip and knee arthroplasty in dialysis and renal transplantation patients. They included a total of 107 patients undergoing primary total joint arthroplasty, including 50 who were receiving dialysis and 57 who had a prior renal transplantation. The end point was defined as revision surgery secondary to post-operative complications. Researchers found a significantly higher rate of post-operative complications in the dialysis cohort (28%, n=14 of 50 joints) compared to the renal transplant cohort (7.1%, n= 4 of 57 joints). There was a higher rate of SSI and PJI in dialysis patients, compared with renal transplantation patients (18% versus 3.5%, P=0.02). In addition, there was an increased rate of revision surgery in the dialysis cohort, compared to transplant cohort (24% versus 3.5%, P=0.002). A multi-variate analysis considering demographics and comorbidities revealed that patients with renal transplantation were less likely to have revision surgery, compared to patients on dialysis as the time of arthroplasty (95 % CI, P=0.031), and demonstrated a strong trend for lower complications (95% CI, P=0.76), although the latter was not statistically significant. Researchers concluded that transplantation was independently associated with reduced rates of revision surgery in the setting of chronic renal failure, suggesting that those who are candidates may benefit from renal transplantation before undergoing elective TJA.

The OA Research Society International (OARSI) (Zhang et al., 2008) published recommendations on the management of hip osteoarthritis, recommending that orthopedic surgical intervention proceed after more conservative treatment options have been exhausted. Conservative treatments recommended include pharmacological interventions, such as capsaicin, paracetamol (acetaminophen), topical and oral non-selective non-steroidal anti-inflammatory drugs (NSAIDs), oral COX-2 inhibitors, and intra-articular glucocorticoids.

CODES

- Eligibility for reimbursement is based upon the benefits set forth in the member's subscriber contract.
- **CODES MAY NOT BE COVERED UNDER ALL CIRCUMSTANCES. PLEASE READ THE POLICY AND GUIDELINES STATEMENTS CAREFULLY.**
- Codes may not be all inclusive as the AMA and CMS code updates may occur more frequently than policy updates.
- Code Key: Experimental/Investigational = (E/I), Not medically necessary/ appropriate = (NMN).

CPT Codes

Code	Description
27125	Hemiarthroplasty, hip, partial (e.g., femoral stem prosthesis, bipolar arthroplasty)
27130	Arthroplasty, acetabular and proximal femoral prosthetic replacement (total hip arthroplasty), with or without autograft or allograft
27132	Conversion of previous hip surgery to total hip arthroplasty, with or without autograft or allograft
27134	Revision of total hip arthroplasty; both components, with or without autograft or allograft
27137	Revision of total hip arthroplasty; acetabular component only, with or without autograft or allograft
27138	Revision of total hip arthroplasty; femoral component only, with or without allograft

Copyright © 2024 American Medical Association, Chicago, IL

HCPCS Codes

Code	Description
No codes	

Medical Policy: HIP ARTHROPLASTY**Policy Number: 7.01.96****Page: 5 of 7****ICD10 Codes**

Code	Description
M05.051- M08.959	Inflammatory polyarthropathies (hip) (code range)
M12.551 - M12.559	Traumatic arthropathy, hip (code range)
M16.0 - M16.9	Osteoarthritis of hip (code range)
M80.051A - M80.059S, M80.851A- M80.859S, M84.451A- M84.453S, M84.459A- M84.459S, M84.551A- M84.559S, M84.651A- M84.659S	Pathologic fracture of neck of femur (hip) (code range)
M84.750A- M84.759S	Atypical femoral fracture (code range)
M87.051- M87.059, M87.151- M87.159, M87.251- M87.256, M87.351- M87.353, M87.851- M87.859, M90.551- M90.559	Osteonecrosis of femur and thigh (code range)
M97.01XA- M97.02XS	Periprosthetic fracture around internal prosthetic hip joint (code range)
S72.001A- S72.26XS	Fracture of head and neck of femur (code range)

REFERENCES

*Andrew J. Palan J. Kurup H. et al. Obesity in total hip replacement. Journal of Bone & Joint Surgery - British Volume. 2008 Apr;90(4):424-9.

Adrados M, et al. Institutional adherence to the american association of hip and knee surgeons body mass index guidelines lowers perioperative emergency department visits in primary total knee arthroplasty. The Journal of Arthroplasty 2023 Jun;38(6S): S88-S93.

Medical Policy: HIP ARTHROPLASTY

Policy Number: 7.01.96

Page: 6 of 7

Bartels S, et al. Total hip arthroplasty leads to better results after low-energy displaced femoral neck fracture in patients aged 55 to 70 years: a randomized controlled multicenter trial comparing internal fixation and total hip arthroplasty Journal of Bone Joint Surgery 2022.Aug;104(15):1341-1351.

Bhandari M, et al. Total hip arthroplasty or hemiarthroplasty for hip fracture. N Engl J Med 2019 Dec 5;381(23):2199-2208.

*Biring G, et al. Predictors of quality of life outcomes after revision total hip replacement. Journal of Bone & Joint Surgery - British Volume 2007 Nov;89(11):1446-51.

Blankstein M, et al. What factors increase revision surgery risk when treating displaced femoral neck fractures with arthroplasty: a secondary analysis of the HEALTH Trial. J Orthop Trauma 2020 Nov;34 Suppl 3:S49-S54.

*Boraiah S, et al. Open reduction internal fixation and primary total hip arthroplasty of selected acetabular fractures. Journal of Orthopaedic Trauma 2009 Apr;23(4):243-8.

Browne J, et al. Peritoneal dialysis does not carry the same risk as hemodialysis in patients undergoing hip or knee arthroplasty. J Bone Joint Surg 2019;101(14):1271-77.

*Busato A, et al. Influence of high BMI on functional outcome after total hip arthroplasty. Obesity Surgery 2008 May;18(5):595-600.

Chalmers BP, et al. Primary total hip arthroplasty for charcot arthropathy is associated with high complications but improved clinical outcomes. J Arthroplasty 2018 Sept;33(9):2912-2918.

Chammout G, et al. HOPE-Trial: hemiarthroplasty compared with total hip arthroplasty for displaced femoral neck fractures in octogenarians: a randomized controlled trial. JB JS Open Access 2019 May 1;4(2):e0059.

Chen W, et al. Direct anterior versus posterolateral approaches for clinical outcomes after total hip arthroplasty: a systematic review and meta-analysis. J Orthop Surg Res 2020 Jun 23;15(1):231.

Douglas, Scott J, et al. Comparing Primary Total Hip Arthroplasty in Renal Transplant Recipients to Patients on Dialysis for End-Stage Renal Disease: A Nationally Matched Analysis. J Bone Joint Surgery Am 2021; 103:2215-20.

Ekhtiari S, et al. Total hip arthroplasty versus hemiarthroplasty for displaced femoral neck fracture: a systematic review and meta-analysis of randomized controlled trials. J Bone Joint Surg Am 2020 Sep 16;102(18):1638-1645.

*Ferrara P, et al. Effect of pre-operative physiotherapy in patients with endstage osteoarthritis undergoing hip arthroplasty. Clinical Rehabilitation 2008 Oct-Nov 22(10-11):977-86.

*Girard J, et al. Biomechanical reconstruction of the hip: a randomised study comparing total hip resurfacing and total hip arthroplasty. J Bone Joint Surg Br 2006 Jun;88(6):721-6.

*Gjertsen J, et al. Total hip replacement after femoral neck fractures in elderly patients: results of 8,577 fractures reported to the Norwegian Arthroplasty Register. Acta Orthopaedica 2007 Aug;78(4):491-7.

*Hamel M. et al. Joint replacement surgery in elderly patients with severe osteoarthritis of the hip or knee: decision making, postoperative recovery, and clinical outcomes. Archives of Internal Medicine 2008 Jul 14;168(13):1430-40.

*Inoue D et al. Comparison of postoperative complications and survivorship of total hip and knee arthroplasty in dialysis and renal transplantation patients. J Arthroplasty 2020;35(4):971-75.

*Inoue, D, et al. Outcomes of simultaneous bilateral total hip arthroplasty for 256 selected patients in a single surgeon's practice. Bone Joint J 2021 Jul;103-B(7 suppl B): 116-121.

Jo S, et al. Clinical outcomes of total hip arthroplasty for displaced femoral neck fractures in patients 80 years of age and older selected by clinical frailty score. Hip Pelvis 2020 Sep;32(3):148-155.

Liu Y, et al. Comparing total hip arthroplasty and hemiarthroplasty for the treatment of displaced femoral neck fracture in the active elderly over 75 years old: a systematic review and meta-analysis of randomized control trials. J Orthop Surg Res 2020 Jun 11;15(1):215.

Medical Policy: HIP ARTHROPLASTY

Policy Number: 7.01.96

Page: 7 of 7

*Lubbeke A, et al. Primary and revision hip arthroplasty: 5-year outcomes and influence of age and comorbidity. Journal of Rheumatology 2007 Feb;34(2):394-400.

Martin SD, et al. Hip arthroscopy versus physical therapy for the treatment of symptomatic acetabular labral tears in patients older than 40 Years: a randomized controlled trial. The American Journal of Sport Medicine 2021 APR;49(5):1199-1208.

Parker MJ and Cawley S. Treatment of the displaced intracapsular fracture for the 'fitter' elderly patients: a randomised trial of total hip arthroplasty versus hemiarthroplasty for 105 patients. Injury 2019 Nov;50(11):2009-2013.

*Santaguida P, et al. Patient characteristics affecting the prognosis of total hip and knee joint arthroplasty: a systematic review. Canadian Journal of Surgery 2008 Dec;51(6):428-36.

*Steinberg M and Steinberg D. Classification systems for osteonecrosis: an overview. Orthop Clin North Am 2004 Jul;35(3):273-83, vii-viii.

*Smith TO, et al. The clinical and radiological outcomes of hip resurfacing versus total hip arthroplasty: a meta-analysis and systematic review. Acta Orthop 2010;81(6):684-695.

*Watson D, et al. Primary total hip arthroplasty for displaced femoral neck fracture. 2008 Oct Orthopedics 31(10).

*Zhang W, et al. OARSI recommendations for the management of hip and knee osteoarthritis, Part II: OARSI evidence-based, expert consensus guidelines. Osteoarthritis and Cartilage 2008;16:137-162. [<https://oarsi.org/education/oarsi-resources/oarsi-recommendations-management-hip-and-knee-osteoarthritis-part-ii-oarsi>] accessed 05/07/24.

*Zhang W, et al. OARSI recommendations for the management of hip and knee osteoarthritis: Part III: Changes in evidence following systematic cumulative update of research published through January 2009. Osteoarthritis Cartilage 2010;18(4):476-499.

*Key Article

KEY WORDS

Total Hip Replacement, Revision of Total Hip Replacement, Partial Hip Replacement

CMS COVERAGE FOR MEDICARE PRODUCT MEMBERS

There is currently a Local Coverage Determination (LCD) L36039 for Total Joint Arthroplasty. Please refer to the following LCD website for Medicare Members: [<https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdid=36039&ver=12&keyword=L36039&keywordType=starts&areaId=all&docType=F,P&contractOption=all&sortBy=relevance&bc=1>] accessed 05/07/24.

There is currently a Local Coverage Article (LCA) for Total Joint Arthroplasty. Please refer to the following website for Medicare Members: [[https://www.cms.gov/medicare-coverage-database/view/article.aspx?articleid=57428&ver=6&LCDId=36039&CtrctrSelected=298*1&Ctrctr=298&name=National+Government+Services%2C+Inc.+\(13201%2C+A+and+B+and+HHH+MAC%2C+J+-+K\)&s=All&DocType=Active&bc=AggAAQBIAAA&=](https://www.cms.gov/medicare-coverage-database/view/article.aspx?articleid=57428&ver=6&LCDId=36039&CtrctrSelected=298*1&Ctrctr=298&name=National+Government+Services%2C+Inc.+(13201%2C+A+and+B+and+HHH+MAC%2C+J+-+K)&s=All&DocType=Active&bc=AggAAQBIAAA&=)] accessed 05/07/24.