

MEDICAL POLICY

MEDICAL POLICY DETAILS	
Medical Policy Title	Hip Arthroplasty
Policy Number	7.01.96
Category	Technology Assessment
Original Effective Date	06/21/18
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Current Effective Date	04/20/23
Archived Date	N/A
Archive Review Date	N/A
Product Disclaimer	<ul style="list-style-type: none"> • <i>If a product excludes coverage for a service, it is not covered, and medical policy criteria do not apply.</i> • <i>If a commercial product (including an Essential Plan or Child Health Plus product), medical policy criteria apply to the benefit.</i> • <i>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.</i> • <i>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.</i> • <i>If a Medicare HMO-Dual Special Needs Program (DSNP) product DOES NOT cover a specific service, please refer to the Medicaid Product coverage line</i>

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**, when **ANY** of the following criteria have been met:
 - A. A fracture of the femoral head or femoral neck is present, and conservative management or surgical fixation is not considered a reasonable option.
 - B. Tönnis Grade 3 osteoarthritis or avascular necrosis, with collapse of the femoral head, is present, and **ALL** of the following criteria have been met:
 1. 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 months' duration;
 2. loss of hip function secondary to osteoarthritis that interferes with the ability to carry out age-appropriate activities of daily living and/or the demands of employment; **and**
 3. failure of provider-directed, non-surgical management for at least three months (at least six months for patients with BMI greater than 40) or documentation in the medical record of the reasons that provider-directed, non-surgical management is not appropriate (i.e., collapse of the femoral head, inflammatory arthritis, advanced dysplasia). Note: The duration of provider-directed, non-surgical management allows for preoperative optimization of reasonably modifiable medical and behavioral health comorbidities.
- II. Based upon our criteria and assessment of the peer-reviewed literature, partial hip replacement does not improve patient outcomes and, therefore, is considered **not medically necessary** for **ANY** other indication, or condition, or when **ANY** of the following are present:

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- A. active local or systemic infection;
- B. osseous abnormalities that cannot be optimally managed prior to surgery, increasing the likelihood of a poor surgical outcome (e.g., inadequate bone stock to support the implant), unless the procedure is being performed for a fracture indication;
- C. one or more uncontrolled or unstable medical conditions that would significantly increase the risk of morbidity (e.g., cardiac, pulmonary, liver, genitourinary, or metabolic disease; hypertension; abnormal serum electrolyte levels);
- D. vascular insufficiency, significant muscular atrophy of the leg, or neuromuscular disease severe enough to compromise implant stability or post-operative recovery;
- E. severe immunocompromised state;
- F. Charcot joint; **or**
- G. 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**, when **EITHER** of the following criteria have been met:

- A. A fracture of the femoral head or femoral neck is present, and conservative management or surgical fixation is not considered a reasonable option; **OR**
- B. Tonnis Grade 3 osteoarthritis or avascular necrosis with collapse of the femoral head, or inflammatory arthropathy affecting both the femoral head and acetabulum with joint space narrowing, is present, and **ALL** of the following criteria have been met:
 - 1. 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 months' duration;
 - 2. loss of hip function secondary to osteoarthritis that interferes with the ability to carry out age-appropriate activities of daily living and/or demands of employment; **and**
 - 3. failure of provider-directed, non-surgical management for at least three months (at least six months for patients with BMI greater than 40) or documentation in the medical record of the reasons that provider-directed, non-surgical management is not appropriate (e.g., collapse of the femoral head, inflammatory arthritis, advanced dysplasia). The medical record must clearly document why provider-directed non-surgical management is not appropriate. Note: The duration of provider-directed, non-surgical management allows for pre-operative optimization of reasonably modifiable medical and behavioral health comorbidities.

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

- A. The patient has an active local or systemic infection;
 - B. The patient has osseous abnormalities that cannot be optimally managed prior to surgery, increasing the likelihood of a poor surgical outcome (e.g., inadequate bone stock to support the implant), unless the procedure is being performed for a fracture indication;
 - C. The patient has one or more uncontrolled or unstable medical conditions that would significantly increase the risk of morbidity or mortality (e.g., cardiac, pulmonary, liver, genitourinary, or metabolic disease; hypertension; abnormal serum electrolyte levels);
 - D. 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;
 - E. The patient is in a severely immunocompromised state;
 - F. The patient has Charcot joint; or
 - G. The patient is on 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 considered **not medically necessary**, based on increased risk of serious complications (e.g., cardiac complications, pulmonary complications, and mortality).

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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 a patient who has previously undergone a partial or total hip replacement, when **ANY** of the following 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;
4. periprosthetic infection;
5. periprosthetic fracture;
6. leg length discrepancy;
7. osteolysis without eccentric wear (wear of elevated rim liner without wear superiorly);
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 city blocks, the equivalent to walking the length of a shopping mall) for greater than six 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.

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RATIONALE

In a meta-analysis, Smith and colleagues 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 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) 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

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Code	Description
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

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Code	Description
No codes	

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)

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Code	Description
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)

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*Key Article

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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) 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&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=AggAAAQBAAAA&=](https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdid=36039&ver=12&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=AggAAAQBAAAA&=)

There is currently a Local Coverage Article for total joint arthroplasty. Please refer to the following website for Medicare Members: [https://www.cms.gov/medicare-coverage-database/details/article-details.aspx?articleId=57428&ver=4&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=AggAAAQBIAAA&=](https://www.cms.gov/medicare-coverage-database/details/article-details.aspx?articleId=57428&ver=4&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=AggAAAQBIAAA&=)