

02-20000-50

Original Effective Date: 10/15/16

Reviewed: 04/22/21

Revised: 12/15/22

Subject: Hip Arthroplasty

THIS MEDICAL COVERAGE GUIDELINE IS NOT AN AUTHORIZATION, CERTIFICATION, EXPLANATION OF BENEFITS, OR A GUARANTEE OF PAYMENT, NOR DOES IT SUBSTITUTE FOR OR CONSTITUTE MEDICAL ADVICE. ALL MEDICAL DECISIONS ARE SOLELY THE RESPONSIBILITY OF THE PATIENT AND PHYSICIAN. BENEFITS ARE DETERMINED BY THE GROUP CONTRACT, MEMBER BENEFIT BOOKLET, AND/OR INDIVIDUAL SUBSCRIBER CERTIFICATE IN EFFECT AT THE TIME SERVICES WERE RENDERED. THIS MEDICAL COVERAGE GUIDELINE APPLIES TO ALL LINES OF BUSINESS UNLESS OTHERWISE NOTED IN THE PROGRAM EXCEPTIONS SECTION.

Position Statement	Billing/Coding	Reimbursement	Program Exceptions	Definitions	Related Guidelines
Other	References	Updates			

DESCRIPTION:

Arthritis is the most common cause of chronic hip pain and disability. Degenerative, age-related osteoarthritis causes cartilage to wear away and eventually the bones within the joint rub against each other causing pain and stiffness. In a total hip replacement, the femoral head and acetabulum are removed and replaced with prosthetic components. In hip resurfacing arthroplasty, a metal cup is placed in the acetabulum and a metal cap is placed over the head of the femur with limited removal of the femoral head and neck.

In some cases, the hip prosthesis may wear out or loosen. If loosening is painful, a second surgery, such as a revision or conversion may be necessary. In this procedure some or all of the components of the original replacement prosthesis are removed and replaced with new ones.

POSITION STATEMENT:

General criteria for elective hip arthroplasty

Elective hip arthroplasty meets the **definition of medical necessity** when **ALL** of the following are met:

- Hip pain with documented loss of function, which may include painful weight bearing; painful or inadequate range of motion to accomplish age-appropriate activities of daily living (ADLs) and/or employment; or mechanical catching/locking
- Medically stable with no uncontrolled comorbidities (e.g., diabetes)
- Does not have an active local or systemic infection
- Does not have active, untreated drug dependency (including but not limited to narcotics, opioids, muscle relaxants) unless engaged in treatment program

- Good oral hygiene and does not have major dental work scheduled or anticipated (ideally within one year of joint replacement)
- Efforts have been made to ensure that the surgical candidate is optimally informed and prepared for surgery

Clinical notes should address:

- Symptom onset, duration, and severity
- Loss of function and/or limitations
- Type and duration of non-operative management modalities
- Discussion with surgical candidate regarding decision making and timing

Non-operative management

Non-operative management must include at least two of the following, unless otherwise specified in clinical indications below:

- Rest or activity modifications/limitations
- Weight reduction with elevated BMI
- Protected weight-bearing with cane, walker or crutches
- Physical therapy modalities
- Physician-supervised exercise program (including home exercise program)
- Pharmacologic treatment: oral/topical NSAIDS, acetaminophen, or analgesics
- Intra-articular injection(s)

Total Hip Arthroplasty (THA)

Total hip arthroplasty **meets the definition of medical necessity** for the following:

- Hip pathology due to:
 - Rheumatoid arthritis
 - Femoral neck fracture
 - Malignancy
 - Dysplasia
 - Avascular necrosis (confirmed by imaging)
 - Radiographs (x-rays) demonstrate bone-on-bone articulation, **AND**
 - There is persistent pain and documented loss of function with any of the above

NOTE: There is no medical necessity to perform THA in those with severe radiological disease and no symptoms, except in the case of malignancy.

OR

- When **ALL** of the following are met:
 - Pain due to advanced osteoarthritis (Tonnis*** grade 2 or 3), and documented loss of function that has been present for at least 3 months
 - Failure of at least 3 months of non-operative management
 - Physical exam demonstrates findings of hip pathology as evidenced by one or more of the following:
 - Painful, limited range of motion or antalgic gait
 - Contracture
 - Crepitus
 - Leg length difference
 - Imaging demonstrates advanced hip joint arthritis of at least Tonnis*** grade 2 or 3. Radiograph evaluation should include advanced osteoarthritis findings (joint space narrowing, subchondral sclerosis, subchondral cysts, osteophyte formation, etc.).
 - No corticosteroid injection into the joint within 12 weeks of surgery
 - All requests for THA or revision THA require documentation in the medical record that the potential risks, benefits, and potential complications specific to these procedures were discussed with the candidate

Relative contraindications:

- Prior infection at site (unless aspiration with cultures and serology [CBC with differential, ESR, CRP] demonstrates no infection); if prior infection at site, tissue biopsies should be sent intra-operatively to exclude latent/dormant infection
- Documented allergy to any proposed component
- BMI > 40, without attempted weight loss or discussion of increased risk conferred by BMI
- Compromised soft tissue envelope
- Uncontrolled comorbidities

Absolute contraindications:

- Any corticosteroid injection into the joint within 12 weeks of surgery
- Local or remote active infection. If a local or remote infection is documented in the history, records should clearly demonstrate that the previous infection had been treated and symptoms have resolved or that the candidate has no clinical signs or symptoms of the previous infection at the time of the operation.

Hip Resurfacing Arthroplasty

Hip resurfacing arthroplasty **meets the definition of medical necessity** when **ALL** of the following are met:

- Pain and documented loss of function have been present for at least 3 months
- 3 months of non-operative management have failed to improve symptoms
- Physical exam has typical findings of hip pathology as evidenced by one or more of the following:
 - Painful, limited range of motion or antalgic gait
 - Contracture
 - Crepitus
 - Leg length difference
- Imaging demonstrates advanced hip joint pathology of at least Tonnis*** grade 2 or 3, or avascular necrosis involving less than 50% of the femoral head
- Male candidate is less than 65 years old, or female candidate is less than 55 years old
- BMI less than 40
- No corticosteroid injection into the joint within 12 weeks of surgery

Absolute Contraindications:

- Any corticosteroid injection into the joint within 12 weeks of surgery
- Osteoporosis or osteopenia (by DEXA scan bone mineral density evaluation) (osteoporosis or poor bone quality may increase the risk of fixation failure or femoral neck fracture after hip resurfacing)
- Other co-morbidity [including medications that contribute to decreased bone mineral density (glucocorticoid steroids, heparin, aromatase inhibitors, thiazolidinediones, proton pump inhibitors, loop diuretics, cyclosporine, anti-retrovirals, anti-psychotics, anti-seizures, certain breast cancer drugs, certain prostate cancer drugs, depo-provera, aluminum-containing antacids) that may contribute to active bone demineralization]
- Cystic degeneration at the junction of the femoral head and neck on radiographs, MRI or CT
- Malignancy at the proximal femur
- Evidence of current, ongoing, or inadequately treated hip infection, or sepsis
- Female of child-bearing age (due to metal ions circulating in blood with potential risk to fetus) (Note: This only applies to metal on metal replacements)
- Chronic renal insufficiency (due to metal ions circulating and potential renal toxicity)
- Metal allergy

Total Hip Arthroplasty Revision/Conversion Arthroplasty

Total hip arthroplasty revision/conversion arthroplasty **meets the definition of medical necessity** for the following indications:

- Previous removal of infected hip prosthesis **AND** no evidence of current, ongoing, or inadequately treated hip infection [ruled out by normal inflammatory markers* (ESR and CRP)],

OR significant improvement in these markers and a clear statement by the treating surgeon that infection has been adequately treated, **AND** off antibiotics

***NOTE:** If these inflammatory markers are elevated, further evaluation is required, including an aspiration with synovial fluid WBC count, gram stain and cultures, or an intraoperative frozen biopsy.

OR

- When **ALL** of the following are met:
 - Failed hip arthroplasty, defined by symptomatic or unstable joint upon physical exam (documented persistent, severe and disabling pain, loss of function, instability), or failed previous hip fracture surgery
 - Physical exam and radiographic evidence supports extensive disease or damage due to fracture, malignancy, osteolysis, other bone or soft-tissue reactive or destructive process, inappropriate positioning of components, recurrent instability, subluxation, dislocation, critical polyethylene wear, or other mechanical failure
 - No evidence of current, ongoing, or inadequately treated hip infection [ruled out by normal inflammatory markers* (ESR and CRP)]
 - All requests for THA or revision THA require documentation in the medical record that the potential risks, benefits, and potential complications specific to these procedures were discussed with the candidate
 - No corticosteroid injection into the joint within 12 weeks of surgery

***NOTE:** If these inflammatory markers are elevated, further evaluation is required, including an aspiration with synovial fluid WBC count, gram stain and cultures, or an intraoperative frozen biopsy.

****NOTE:** Removal of infected hip prosthesis and subsequent insertion of antibiotic spacer is not considered a revision arthroplasty.

*****Tonnis Classification of Osteoarthritis by Radiographic Changes**

0: No signs of osteoarthritis

1: Mild: Increased sclerosis, slight narrowing of the joint space, no or slight loss of head sphericity

2: Moderate: Small cysts, moderate narrowing of the joint space, moderate loss of head sphericity

3: Severe: Large cysts, severe narrowing or obliteration of the joint space, severe deformity of the head

BILLING/CODING INFORMATION:

CPT Coding

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; acetabular component only, with or without autograft or allograft

HCPCS Coding

S2118	Metal-on-metal total hip resurfacing, including acetabular and femoral components
-------	---

REIMBURSEMENT INFORMATION:

Refer to section entitled [POSITION STATEMENT](#).

PROGRAM EXCEPTIONS:

Federal Employee Program (FEP): Follow FEP guidelines.

State Account Organization (SAO): Follow SAO guidelines.

Medicare Advantage products: The following Local Coverage Determination (LCD) was reviewed on the last guideline review date: Major Joint Replacement (Hip and Knee) (L33618), located at fcso.com.

DEFINITIONS:

No guideline specific definitions apply.

RELATED GUIDELINES:

[Hip Arthroscopy and Open, Non-Arthroplasty Hip Repair, 02-20000-55](#)
[Computer-Assisted Navigation for Orthopedic Procedures, 02-20000-30](#)

OTHER:

None applicable.

REFERENCES:

1. AHRQ National Guideline Clearinghouse. NGC10528: American Academy of Orthopaedic Surgeons clinical practice guideline on management of hip fractures in the elderly. September 2014.
2. American Academy of Orthopaedic Surgeons (AAOS). Guideline and Evidence Report. The treatment of glenohumeral joint osteoarthritis. Accessed at <http://www.orthoguidelines.org/guideline-detail?id=1156>.
3. American Academy of Orthopaedic Surgeons (AAOS). OrthoInfo. Hip Resurfacing. Accessed at <http://orthoinfo.aaos.org/topic.cfm?topic=A00586>.

4. Bergh C, et al. Increased risk of revision in patients with non-traumatic femoral head necrosis: 11,589 cases compared to 416,217 cases with primary osteoarthritis in the NARA database, 1995-2011. *Acta orthopaedica* 85.1 (2014): 11-17.
5. Centers for Medicare and Medicaid Services (CMS). Local Coverage Determination (LCD): Major Joint Replacement (Hip and Knee) (L33618) (10/01/15) (Revised 01/08/19).
6. Fernandes L, et al. EULAR recommendations for the non-pharmacological core management of hip and knee osteoarthritis. *Annals of the rheumatic diseases* 72.7 (2013): 1125-1135.
7. Ghomrawi HMK, et al. Appropriateness criteria and elective procedures—total joint arthroplasty. *New England Journal of Medicine* 367.26 (2012): 2467-2469.
8. Goh GS, Sutton RM, D'Amore T, Baker CM, Clark SC, Courtney PM. A Time-Driven Activity-Based Costing Analysis of Simultaneous Versus Staged Bilateral Total Hip Arthroplasty and Total Knee Arthroplasty. *J Arthroplasty*. 2022 Aug;37(8S):S742-S747. doi: 10.1016/j.arth.2022.01.048. Epub 2022 Jan 31. PMID: 35093545.
9. Gossec L., et al. The role of pain and functional impairment in the decision to recommend total joint replacement in hip and knee osteoarthritis: an international cross-sectional study of 1909 patients. Report of the OARSI-OMERACT Task Force on total joint replacement. *Osteoarthritis and Cartilage* 19.2 (2011): 147-154.
10. Hochberg MC, et al. American College of Rheumatology 2012 recommendations for the use of nonpharmacologic and pharmacologic therapies in osteoarthritis of the hand, hip, and knee. *Arthritis care & research* 64.4 (2012): 465-474.
11. Inoue D, Grace TR, Restrepo C, Hozack WJ. 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 Supple B):116-121. doi: 10.1302/0301-620X.103B7.BJJ-2020-2292.R1. PMID: 34192915.
12. InterQual® 2014. CP: Procedures, Adult. Removal and Replacement, Total Joint Replacement (TJR), Hip.
13. InterQual® 2014. CP: Procedures, Adult. Total Joint Replacement (TJR), Hip.
14. Kolodziej L, Bohatyrewicz A, Jurewicz A, Szczypiór-Piasecka K, Przybył K. Simultaneous Bilateral Minimally Invasive Direct Anterior Approach Total Hip Arthroplasty with fast track Protocol. *Ortop Traumatol Rehabil*. 2020 Feb 29;22(1):17-24. doi: 10.5604/01.3001.0013.9780. PMID: 32242522.
15. Morton JS, Kester BS, Eftekhary N, Vigdorichik J, Long WJ, Memtsoudis SG, Poultsides LA. Thirty-Day Outcomes After Bilateral Total Hip Arthroplasty in a Nationwide Cohort. *Arthroplast Today*. 2020 Jun 17;6(3):405-409. doi: 10.1016/j.artd.2020.04.020.
16. Muskus M, Rojas J, Gutiérrez C, Guio J, Bonilla G, Llinás A. Bilateral Hip Arthroplasty: When Is It Safe to Operate the Second Hip? A Systematic Review. *Biomed Res Int*. 2018 Feb 28;2018:3150349. doi: 10.1155/2018/3150349.
17. National Imaging Associates, Inc. Hip Arthroplasty, Total and Revision/Conversion Clinical Guideline, 2016.
18. National Imaging Associates, Inc. Hip Arthroplasty, Total and Revision/Conversion Clinical Guideline, 2017.
19. National Imaging Associates, Inc. Hip Arthroplasty, Total and Revision/Conversion Clinical Guideline, 2018.
20. National Imaging Associates, Inc. Hip Arthroplasty, Total and Revision/Conversion Clinical Guideline, 2019.
21. National Imaging Associates, Inc. Hip Arthroplasty, Total and Revision/Conversion Clinical Guideline, 2020.

22. National Imaging Associates, Inc. Hip Arthroplasty, Total and Revision/Conversion Clinical Guideline, 2021.
23. National Institute for Health and Care Excellence (NICE). NICE technology appraisal guidance [TA304]: Total hip replacement and resurfacing arthroplasty for end-stage arthritis of the hip. February 2014. Accessed at <https://www.nice.org.uk/guidance/ta304>.
24. Partridge TCJ, Charity JAF, Sandiford NA, Baker PN, Reed MR, Jameson SS. Simultaneous or Staged Bilateral Total Hip Arthroplasty? An Analysis of Complications in 14,460 Patients Using National Data. J Arthroplasty. 2020 Jan;35(1):166-171. doi: 10.1016/j.arth.2019.08.022. Epub 2019 Aug 14. PMID: 31521445.
25. Shao H, Chen CL, Maltenfort MG, Restrepo C, Rothman RH, Chen AF. Bilateral Total Hip Arthroplasty: 1-Stage or 2-Stage? A Meta-Analysis. J Arthroplasty. 2017 Feb;32(2):689-695. doi: 10.1016/j.arth.2016.09.022. Epub 2016 Sep 28. PMID: 27776901.

COMMITTEE APPROVAL:

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy and Coverage Committee on 04/22/21.

GUIDELINE UPDATE INFORMATION:

10/15/16	New Medical Coverage Guideline.
04/15/17	Revision: updated criteria for total hip arthroplasty and hip resurfacing arthroplasty. Added coverage statement (E/I) for patient-specific, gender-specific, and computer-navigated instrumentation. Updated references.
07/15/18	Scheduled review. Added general criteria for elective hip arthroplasty; revised criteria for total hip arthroplasty, hip resurfacing arthroplasty, and total hip arthroplasty revision/conversion. Deleted references to “gender-specific instrumentation” “patient-specific instrumentation” and “computer-navigated instrumentation”. Updated references.
07/15/19	Scheduled review. Revised criteria regarding evidence of resolved infection documentation. Updated references.
02/15/20	Revision: added clarifying language for contraindications.
07/15/20	Scheduled review. Revised description and position statement. Updated references.
05/15/21	Scheduled review. Revised relative contraindications for THA. Updated references.
12/15/22	Revision: Deleted statement regarding simultaneous bilateral total hip arthroplasty. Updated references.