

MEDICAL POLICY		Hip: Total Joint Arthroplasty (All Lines of Business Except Medicare)	
Effective Date: 4/1/2020		Section: SUR	Policy No: 247
 4/1/2020		Medical Policy Committee approved Date: 11/11; 1/14; 8/14; 9/15; 5/16; 8/16; 10/17; 12/18; 12/19; 3/2020	
Medical Officer	Date		

See Policy CPT/HCPCS CODE section below for any prior authorization requirements

SCOPE:

Providence Health Plan, Providence Health Assurance, Providence Plan Partners, and Ayin Health Solutions as applicable (referred to individually as “Company” and collectively as “Companies”).

APPLIES TO:

All lines of business except Medicare

BENEFIT APPLICATION

Medicaid Members

Oregon: Services requested for Oregon Health Plan (OHP) members follow the OHP Prioritized List and Oregon Administrative Rules (OARs) as the primary resource for coverage determinations. Medical policy criteria below may be applied when there are no criteria available in the OARs and the OHP Prioritized List.

<p>POLICY CRITERIA</p> <p>I. Initial total hip arthroplasty may be considered medically necessary and covered when any one or more of the following criteria (A.-D.) are met:</p> <p>A. Patient has a diagnosis of osteoarthritis or posttraumatic arthritis of the hip and all of the following criteria (1.-3.) are met:</p> <ol style="list-style-type: none"> 1. Two or more of the following criteria are met: <ol style="list-style-type: none"> a. Pain increased with initiation of activity b. Pain increased with weight bearing c. Pain interferes with ADLs (activities of daily living) d. Pain with ROM (range of motion); and 2. Patient has limited ROM and antalgic gait; and 3. Either of the following criteria are met:

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- a. Imaging documents there is bone on bone contact **and** no active infection; **or**
 - b. Imaging documents arthritis **and both** of the following (i. and ii.) are met:
 - i. **Two or more** the following criteria are met:
 - Subchondral cysts
 - Subchondral sclerosis
 - Periarticular osteophytes
 - Joint subluxation
 - Joint space narrowing; **and**
 - ii. There is no active infection **and** symptoms persist after **all** of the following treatments have been attempted within the past year:
 - NSAIDs or acetaminophen \geq 3 weeks; **and**
 - PT or home exercise \geq 12 weeks; **and**
 - Activity modification \geq 12 weeks
- B. Patient has a diagnosis of rheumatoid arthritis of the hip **and all** of the following criteria (1.-6.) are met:
- 1. **Two or more** of the following criteria are met:
 - a. Pain increased with initiation of activity
 - b. Pain increased with weight bearing
 - c. Pain interferes with ADLs (activities of daily living)
 - d. Pain with ROM (range of motion)
 - e. Pain at night; **and**
 - 2. Patient has limited ROM and antalgic gait; **and**
 - 3. Imaging documents arthritis; **and**
 - 4. **Two or more** of the following criteria are met:
 - a. Subchondral cysts
 - b. Marginal erosions
 - c. Periarticular osteopenia
 - d. Joint space narrowing
 - e. Joint subluxation; **and**
 - 5. There is no active infection; **and**
 - 6. Symptoms persist after **all** of the following treatments have been attempted within the past year:
 - a. Disease modifying antirheumatic drugs (DMARDs) \geq 12 weeks; **and**
 - b. PT or home exercise \geq 12 weeks; **and**
 - c. Activity modification \geq 12 weeks
- C. Acute hip fracture and **any one** of the following criteria (1.-3.) are met:
- 1. There is no active infection **and either** of the following criteria are met:
 - a. Comminuted or impacted acetabular fracture; **or**
 - b. Displaced femoral head or neck fracture.
 - 2. Intertrochanteric or subtrochanteric fracture and **both** of the following criteria (a. and b.) are met:

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- a. There is no active infection; **and**
 - b. The repair has failed or is not feasible.
 - 3. Imaging documents arthritis **and both** of the following criteria (a. and b.) are met:
 - a. There is no active infection; **and**
 - b. **Two or more** of the following criteria are met:
 - i. Subchondral cysts
 - ii. Subchondral sclerosis
 - iii. Marginal erosions
 - iv. Periarticular osteophytes
 - v. Periarticular osteopenia
 - vi. Joint subluxation
 - vii. Joint space narrowing
 - D. There is no active infection and imaging documents any one of the following criteria:
 - 1. Nonunion or malunion, articular fracture of the hip; **or**
 - 2. Bone tumor involving the hip; **or**
 - 3. Avascular necrosis (osteonecrosis) of the femoral head **and both** of the following criteria (a. and b.) are met:
 - a. Stage III **or** IV of the femoral head is documented; **and**
 - b. Symptoms persist after all of the following treatments have been attempted within the past year:
 - i. NSAIDs or acetaminophen \geq 3 weeks; **and**
 - ii. PT or home exercise \geq 12 weeks; **and**
 - iii. Activity modification \geq 12 weeks.
- II. Hip arthroplasty removal and replacement may be considered **medically necessary and covered** when **any one** of the following criteria (A.-D.) are met:
- A. Imaging documents a fractured hip prosthesis or cement **and** there is no active infection; **or**
 - B. There is a joint infection and any **one or more** of the following criteria (1.-5.) are met:
 - 1. Imaging documents the sinus tract is communicating with the prosthetic joint; **or**
 - 2. Prosthetic joint infection by positive synovial fluid **or** tissue culture **and both** of the following criteria (a. and b.) are met:
 - a. **Any one** of the following criteria (i.-iv.) are met:
 - i. Two cultures positive for same organism
 - ii. Culture positive for Staphylococcus aureus (S. aureus)
 - iii. Culture positive for gram negative organism
 - iv. Culture positive for enterococci
 - b. Joint infection onset within 4 weeks of total joint replacement **and either** of the following criteria (i. or ii.) are met:
 - i. Imaging documents loosening of prosthesis or cement ; **or**

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- ii. There are continued symptoms or findings after **both** of the following treatments:
 - IV anti-infectives \geq 4 weeks; **and**
 - Joint lavage and drainage
- 3. Joint infection onset > 4 weeks of total joint replacement **and either** of the following criteria are met:
 - a. There are no new joint symptoms and findings within the past 3 weeks; **or**
 - b. There are new joint symptoms and findings within the past 3 weeks and either of the following criteria are met:
 - i. Imaging documents loosening of prosthesis or cement ; **or**
 - ii. There are continued symptoms or findings after **both** of the following treatments:
 - IV anti-infectives \geq 4 weeks; **and**
 - Joint lavage and drainage
- 4. Joint pain and **both** of the following criteria (a. and b.) are met:
 - a. **Two or more** of the following criteria are met:
 - i. Temperature > 100.4 F (38.0 C)
 - ii. Synovial white blood count (WBC) or neutrophil percentage > normal
 - iii. ESR > 30 mm/hr.
 - iv. C-reactive protein > normal; **and**
 - b. Joint infection onset within 4 weeks of total joint replacement **and either** of the following criteria are met:
 - i. Imaging documents loosening of prosthesis or cement ; **or**
 - ii. There are continued symptoms or findings after **both** of the following treatments:
 - IV anti-infectives \geq 4 weeks; **and**
 - Joint lavage and drainage
- 5. Erythema or drainage or swelling at joint by physical examination and **both** of the following criteria (a. and b.) are met:
 - a. **Two or more** of the following criteria are met:
 - i. Temperature > 100.4 F (38.0 C)
 - ii. Synovial white blood count (WBC) or neutrophil percentage > normal
 - iii. ESR > 30 mm/hr.
 - iv. C-reactive protein > normal
 - b. Joint infection onset within 4 weeks of total joint replacement **and either** of the following criteria are met:
 - i. Imaging documents loosening of prosthesis or cement ; **or**
 - ii. There are continued symptoms or findings after **both** of the following treatments:
 - IV anti-infectives \geq 4 weeks; **and**
 - Joint lavage and drainage
- C. There is no active infection and imaging documents any one of the following criteria:
 - a. Malposition of acetabular or femoral component; **or**

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- b. Recurrent dislocation; **or**
 - c. Symptomatic loosening of prosthesis or cement.
 - D. Thigh pain ≥ 6 months with uncemented component and there is continued pain after **all** of the following treatments (1.-4.) have been tried within the last year:
 - 1. NSAIDS or acetaminophen ≥ 3 weeks; **and**
 - 2. PT or home exercises ≥ 12 weeks; **and**
 - 3. External joint support ≥ 12 weeks; **and**
 - 4. Activity modification ≥ 12 weeks.
- III. Hip arthroplasty is considered **not medically necessary and not covered** for all other indications when criteria I. or II. are not met.

CPT CODES

All Lines of Business except Medicare	
Prior Authorization Required	
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

DESCRIPTION

A total hip replacement may also be termed total hip arthroplasty (THA). A THA is a surgical procedure that entails removal of the damaged bone and cartilage, and replacement with prosthetic components. The most common cause of hip pain that interferes with daily activities is primary in nature due to arthritis (osteoarthritis [OA], rheumatoid arthritis), though pain can also be a secondary outcome due to trauma or a differing disease process.¹ In OA, cartilage is degraded and causes remodelling of the underlying bone. The cascading effect is a response of chondrocytes in the articular cartilage and the inflammatory cells in the surrounding tissues. The most common joints affected by osteoarthritis are the small joints of the hands and feet, and the hip and knee joint.

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Typically, a THA is indicated for those with a deteriorated joint for whom conservative management has failed, and persistent, debilitating pain causes a significant reduction in the activities of daily living (ADLs). The goals of a THA is to reduce pain and restore function to improve overall quality of life. A number of contraindications to THA exist, including but not limited to: active infection, preexisting significant medical problems, skeletal immaturity, quadriplegia, and permanent or irreversible muscle weakness in the absence of pain. Over 370,000 THAs are performed in the United States each year.

REVIEW OF EVIDENCE

A review of the ECRI, Hayes, Cochrane, and PubMed databases was conducted regarding total hip arthroplasty as a treatment for refractory hip pain due to arthritis of any type or hip fracture. Across multitudes of publications beyond a twenty-year publication period, THA has been shown to demonstrate excellent clinical and functional results.¹⁻³ Conservative management prior to THA surgery is ubiquitously recommended unless contraindicated.⁴⁻⁹ The culmination of the literature demonstrates that rigorous patient-selection and pre-operative planning/evaluation supports increased improved overall health outcomes.¹⁰⁻¹² As such, these policy criteria are primarily based on evidence-based clinical practice guidelines.

CLINICAL PRACTICE GUIDELINES

American Academy of Orthopaedic Surgeons (AAOS)

In 2019, the AAOS published an evidence-based clinical practice guideline for diagnosis and prevention of periprosthetic joint infections (PJIs) in adult knee and hip replacement patients.¹³ Amongst the 25 recommendations included, the AAOS made the following four recommendations regarding pre-operative risk factors:

Risk Factors for Periprosthetic Joint Infection (PJI)

1. Moderate strength evidence supports that obesity is associated with increased risk of PJI.
(Strength of Recommendation: Moderate ★★★)
2. Limited strength evidence supports that patients in which one or more of the following criteria are present are at an increased risk of PJI after hip and knee arthroplasty:
 - Cardiac disease (arrhythmia, coronary artery disease [CAD], congestive heart failure, other)
 - Immunocompromised status (other than HIV), including transplant, cancer
 - Peripheral vascular disease
 - Inflammatory arthritis
 - Prior joint infection
 - Renal disease
 - Liver disease (hepatitis, cirrhosis, other)
 - Mental health disorders (including depression)
 - Alcohol use

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- Anemia
- Tobacco use
- Malnutrition
- Diabetes
- Uncontrolled diabetes

(Strength of Recommendation: Limited ★★)

3. In the absence of reliable evidence, it is the opinion of this work group that in the case that one or more of the following conditions are present, the practitioner should carefully consider the risk before proceeding with surgery:

- Active infection (strongly caution against proceeding with surgery given the risks)
- Anticoagulation status, active thromboprophylaxis (proceed only after careful consideration of the risks)
- Autoimmune disease (proceed only after careful consideration of the risks)
- HIV status (proceed only after careful consideration of the control and risks)
- Institutionalized patients (proceed only after careful consideration of the risks)
- Prior bariatric surgery (proceed only after careful consideration of the risks)

(Strength of Recommendation: Consensus ★)

4. In the absence of reliable evidence, it is the opinion of this work group that the following conditions have an unclear effect on risk of PJI:

- Age (conflicting evidence)
- Dementia (insufficient evidence due to imprecise confidence intervals)
- Poor dental status (inadequate evidence for a recommendation)
- Asymptomatic bacteriuria (conflicting evidence)

(Strength of Recommendation: Consensus ★)

In 2017, the AAOS published a clinical practice guideline for the management of hip osteoarthritis based on the available evidence and an expert consensus panel.¹⁴ Moderate evidence (evidence from two or more studies with consistent findings or evidence from a single high quality study) supported the AAOS recommendations regarding employing risk assessment tools to predict adverse outcomes for those considering total hip arthroplasty, and specific risk factors including but not limited to obesity and increased age. Strong evidence supported improved function and reduced pain for patients undergoing physical therapy as a conservative therapy and NSAID use.

American College of Rheumatology (ACR) | American Association of Hip and Knee Surgeons (AAHKS)

In 2017, Goodman et al. published an evidence-based guideline as a collaboration between the ACR and AAHKS, specific to the perioperative management of antirheumatic drug therapy for adults with rheumatoid arthritis (RA), spondyloarthritis (SpA) including ankylosing spondylitis and psoriatic arthritis, juvenile idiopathic arthritis (JIA), or systemic lupus erythematosus (SLE) undergoing elective total hip (THA) or total knee arthroplasty (TKA).¹⁵ Due to an increased risk for periprosthetic joint infection in these patient populations, the expert panel evaluated the literature and made recommendations for

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medication use following THA. All seven recommendations were reported to be conditional and based on low- or moderate-quality evidence, given the paucity of high-quality data.

INSTRUCTIONS FOR USE

Company Medical Policies serve as guidance for the administration of plan benefits. Medical policies do not constitute medical advice nor a guarantee of coverage. Company Medical Policies are reviewed annually and are based upon published, peer-reviewed scientific evidence and evidence-based clinical practice guidelines that are available as of the last policy update. The Companies reserve the right to determine the application of Medical Policies and make revisions to Medical Policies at any time. Providers will be given at least 60-days notice of policy changes that are restrictive in nature.

The scope and availability of all plan benefits are determined in accordance with the applicable coverage agreement. Any conflict or variance between the terms of the coverage agreement and Company Medical Policy will be resolved in favor of the coverage agreement.

REGULATORY STATUS

Mental Health Parity Statement

Coverage decisions are made on the basis of individualized determinations of medical necessity and the experimental or investigational character of the treatment in the individual case.

MEDICAL POLICY CROSS REFERENCES

- Hip Total Joint Arthroplasty (Medicare Only), SUR248
- Knee: Total Joint Arthroplasty (All Lines of Business Except Medicare), SUR268
- Knee: Total Joint Arthroplasty (Medicare Only), SUR269

REFERENCES

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