



Louisiana

Hip Resurfacing

Policy # 00119

Original Effective Date: 09/18/2002

Current Effective Date: 11/11/2024

Applies to all products administered or underwritten by Blue Cross and Blue Shield of Louisiana and its subsidiary, HMO Louisiana, Inc. (collectively referred to as the "Company"), unless otherwise provided in the applicable contract. Medical technology is constantly evolving, and we reserve the right to review and update Medical Policy periodically.

When Services May Be Eligible for Coverage

Coverage for eligible medical treatments or procedures, drugs, devices or biological products may be provided only if:

- *Benefits are available in the member's contract/certificate, and*
- *Medical necessity criteria and guidelines are met.*

Based on review of available data, the Company may consider metal-on-metal (MoM) total hip resurfacing (THR) with a Food and Drug Administration (FDA)-approved device system to be **eligible for coverage**** as an alternative to total hip replacement.

Patient Selection Criteria

Coverage eligibility for the use of metal-on-metal (MoM) total hip resurfacing (THR) with a Food and Drug Administration (FDA)-approved device system as an alternative to total hip replacement will be considered when all of the following criteria are met:

- Is a candidate for total hip replacement; and
- Is likely to outlive a traditional prosthesis; and
- Does not have a contraindication for total hip resurfacing (THR) (see Policy Guidelines section).

Based on review of available data, the Company may consider partial hip resurfacing with a Food and Drug Administration (FDA)-approved device in individuals with osteonecrosis of the femoral head who have one or more contraindications for metal-on-metal (MoM) implants and meet all of the following criteria to be **eligible for coverage****:

Patient Selection Criteria

Coverage eligibility for the use of partial hip resurfacing with a Food and Drug Administration (FDA)-approved device in individuals with osteonecrosis of the femoral head who have one or more

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contraindications for metal-on-metal (MoM) implants will be considered when all of the following criteria are met:

- The individual is a candidate for total hip replacement; and
- Is likely to outlive a traditional prosthesis; and
- The individual has no known or suspected metal sensitivity or concern about potential effects of metal ions; and
- There is no more than 50% involvement of the femoral head; and
- There is minimal change in acetabular cartilage or articular cartilage space identified on radiography.

When Services Are Considered Investigational

Coverage is not available for investigational medical treatments or procedures, drugs, devices or biological products.

Based on review of available data, the Company considers all other types and applications of total hip resurfacing (THR) to be **investigational**.*

The use of hip resurfacing when Patient Selection Criteria are not met is considered to be **investigational**.*

Policy Guidelines

The U.S. Food and Drug Administration (FDA) lists several contraindications for total hip resurfacing. These contraindications include, but are not limited to, the following:

- Bone stock is inadequate to support the device due to:
 - severe osteopenia or a family history of severe osteoporosis or severe osteopenia
 - osteonecrosis or avascular necrosis with more than 50% involvement of the femoral head
 - multiple cysts of the femoral head (>1 cm)
- Skeletal immaturity
- Vascular insufficiency, muscular atrophy, or neuromuscular disease severe enough to compromise implant stability or postoperative recovery
- Known moderate-to-severe renal insufficiency

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- Severely overweight
- Known or suspected metal sensitivity
- Immunosuppressed or receiving high doses of corticosteroids
- Individuals with childbearing potential of childbearing age due to unknown effects on the fetus of metal ion release.

A 2012 FDA advisory panel of experts identified young males with larger femoral heads as the best candidates for hip resurfacing systems. The FDA has advised that a metal-on-metal hip implant should be selected only after determining that the benefit-risk profile of using a metal-on-metal hip implant outweighs that of using an alternative hip system. Factors to consider include the individual's age, sex, weight, diagnosis, and activity level. Individuals should be informed about the benefits and risks of metal-on-metal hip implants, including the risk that the hip implant may need to be replaced. Individual expectations and the potential complications of surgery with a metal-on-metal hip implant should be discussed.

Total hip resurfacing should be performed by surgeons adequately trained and experienced in the specific techniques and devices used.

Background/Overview

Total Hip Resurfacing

Hip resurfacing is an alternative to total hip arthroplasty (THA; also known as total hip replacement) for patients with advanced arthritis of the hip. Total hip resurfacing describes the placement of a shell that covers the femoral head together with implantation of an acetabular cup. Partial hip resurfacing is considered a treatment option for avascular necrosis with collapse of the femoral head.

Total hip resurfacing has been investigated in patients with osteoarthritis, rheumatoid arthritis, and advanced avascular necrosis as an alternative to THA, particularly in young active patients who would potentially outlive a total hip prosthesis. Therefore, hip resurfacing could be viewed as a time-buying procedure to delay the need for a THA. Proposed advantages of total hip resurfacing compared with THA include preservation of the femoral neck and femoral canal, thus facilitating revision or conversion to total hip resurfacing, if required. In addition, the resurfaced head is more similar in size to the normal femoral head, thus increasing the stability and decreasing the risk of dislocation compared with THA.

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Total hip resurfacing has undergone various evolutions, with modifications in prosthetic design and composition and implantation techniques. For example, similar to total hip prostheses, the acetabular components of total hip resurfacing have been composed of polyethylene. However, over time it became apparent that device failure was frequently related to the inflammatory osteolytic reaction to polyethylene debris wear particles. Metal acetabular components have since been designed to improve implant longevity. Sensitivity to wear particles from metal-on-metal chromium and cobalt implant components are of increasing concern.

FDA or Other Governmental Regulatory Approval

U.S. Food and Drug Administration (FDA)

In 2006, the Birmingham Hip Resurfacing System (Smith & Nephew Orthopaedics), a metal-on-metal resurfacing system, was approved by the U.S. Food and Drug Administration (FDA) through the premarket approval process for use in patients requiring primary hip resurfacing arthroplasty for noninflammatory or inflammatory arthritis. This decision was primarily based on a series of 2203 patients (2385 hips) who received this device by a single surgeon in England. A number of post-approval conditions were required, including the following items:

- Study longer-term safety and effectiveness through 10-year follow-up of the first consecutive 350 cases in the 2385 hip case cohort that was part of the premarket approval.
- Study the "learning curve" and the longer-term safety and effectiveness of the Birmingham Hip Resurfacing system in the United States by studying 350 patients at up to 8 sites where clinical and radiographic data will be assessed annually through 5 years and at 10 years. Also, determine cobalt and chromium serum concentration and renal function in these patients at 1, 4, and 10 years.
- Implement a training program to provide clinical updates to investigators.

Two additional metal-on-metal hip resurfacing systems have been approved: in 2007, the Cormet™‡ Hip Resurfacing System (Corin) and, in 2009, the Conserve®‡ Plus Total Hip Resurfacing System (MicroPort Orthopedics). Both implants were approved for skeletally mature patients with either: noninflammatory degenerative arthritis (eg, osteoarthritis and avascular necrosis); or inflammatory arthritis (eg, rheumatoid arthritis). (Note: patients with the latter arthritis might be individuals who, due to younger age or increased activity level, may not be suitable for traditional THA because it would increase the possibility of requiring ipsilateral hip joint revision.)

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Various devices have been cleared for marketing by the FDA through the 510(k) process for partial hip (femoral) resurfacing. Some surgeons may be using a femoral resurfacing component together with an acetabular cup (total arthroplasty component) as an off-label application.

FDA product code: NXT.

Rationale/Source

This medical policy was developed through consideration of peer-reviewed medical literature generally recognized by the relevant medical community, U.S. Food and Drug Administration approval status, nationally accepted standards of medical practice and accepted standards of medical practice in this community, technology evaluation centers, reference to federal regulations, other plan medical policies, and accredited national guidelines.

Description

Hip resurfacing is an alternative to total hip arthroplasty (also known as hip replacement) for patients with advanced arthritis of the hip. Total hip resurfacing describes the placement of a shell that covers the femoral head together with implantation of an acetabular cup in patients with painful hip joints. Partial hip resurfacing is considered a treatment option for avascular necrosis with collapse of the femoral head. Available prostheses are metal-on-metal devices.

Summary of Evidence

For individuals who have an indication for hip replacement who would outlive a traditional prosthesis and have no contraindication for hip resurfacing who receive a metal-on-metal total hip resurfacing device, the evidence includes randomized controlled trials (RCTs), numerous large observational studies, large registry studies, and systematic reviews. Relevant outcomes are symptoms, change in disease status, functional outcomes, health status measures, quality of life, and treatment-related morbidity. The efficacy of total hip resurfacing performed with current techniques is similar to that for total hip arthroplasty (THA) over the short-to-medium term, and total hip resurfacing may permit easier conversion to a THA for younger patients expected to outlive their prosthesis. Based on potential ease of revision of total hip resurfacing compared with THA, current evidence supports conclusions that hip resurfacing presents a reasonable alternative for active patients who are considered too young for THA when performed by surgeons experienced in the technique. The literature on adverse events (eg, metallosis, pseudotumor formation, implant failure) is evolving as longer follow-up data become available. Due to the uncertain risk with metal-on-metal

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implants, the risk-benefit ratio needs to be considered carefully on an individual basis. In addition, emerging evidence has suggested an increased risk of failure in women, possibly due to smaller implant size. Therefore, these factors should also be considered in the overall patient evaluation for total hip resurfacing, and patients should make an informed choice with their treating physicians. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have an indication for hip replacement who would outlive a traditional prosthesis and have no contraindication for hip resurfacing who receive a partial hip resurfacing device, the evidence includes a comparative study. Relevant outcomes are symptoms, change in disease status, functional outcomes, health status measures, quality of life, and treatment-related morbidity. Although evidence has shown better outcomes with total hip resurfacing than with partial hip resurfacing, partial hip resurfacing would be appropriate in younger patients with osteonecrosis who have contraindications for a metal-on-metal prosthesis. These factors should be considered in the overall patient evaluation for total hip resurfacing, and patients should make an informed choice with their treating physicians. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

Supplemental Information

Clinical Input From Physician Specialty Societies and Academic Medical Centers

While the various physician specialty societies and academic medical centers may collaborate with and make recommendations during this process, through the provision of appropriate reviewers, input received does not represent an endorsement or position statement by the physician specialty societies or academic medical centers, unless otherwise noted.

2013 Input

In response to requests, input was received from 1 physician specialty society and 1 academic medical center while this policy was under review in 2013. Input was mixed, although both reviewers agreed that evidence is not sufficient to conclude that the potential for harm with metal-on-metal hip resurfacing outweighs the benefit for all patients. One reviewer noted that current cross-linked polyethylene total hip components may last 20 to 30 years, limiting the number of patients who would outlive a total hip prosthesis and be considered an appropriate candidate for total hip resurfacing.

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Practice Guidelines and Position Statements

Guidelines or position statements will be considered for inclusion in ‘Supplemental Information’ if they were issued by, or jointly by, a US professional society, an international society with US representation, or National Institute for Health and Care Excellence (NICE). Priority will be given to guidelines that are informed by a systematic review, include strength of evidence ratings, and include a description of management of conflict of interest.

American Academy of Orthopaedic Surgeons

In 2010, the American Academy of Orthopaedic Surgeons published a technology overview on metal-on-metal hip resurfacing. To compare revision rates between metal-on-metal hip resurfacing and total hip arthroplasty (THA), the Academy analyzed 3 joint registries, which indicated that patients who received total hip resurfacing were at greater risk for revision than patients who received THA. One registry suggested that younger men may have a lower revision rate after total hip resurfacing than THA, although the available data were not found to clearly establish an advantage for this subgroup. There was no conclusive evidence on predictors of successful or unsuccessful outcomes.

Hip Society

In 2012, the Hip Society published an algorithmic approach to the diagnosis and management of metal-on-metal arthroplasty. The review indicated that adverse local tissue reactions to metal debris are escalating and that all arthroplasty patients returning for follow-up should be queried for pain, discomfort, or compromise of function. Symptomatic patients should be evaluated for all intra-articular and extra-articular causes of pain, including aseptic loosening, sepsis, component malposition, or fluid collections and/or masses about the hip. The Hip Society stated that there is still a role for metal-on-metal resurfacing arthroplasty in select patient groups. The ideal candidate is a man younger than age 55 with osteoarthritis and a femoral head size larger than 50 mm. Another relative indication is the need or desire to return to a very high activity level at work or in recreation. Contraindications to metal-on-metal resurfacing include known or suspected metal sensitivity; moderate or worse renal function; women who may become pregnant; osteoporosis; large cysts; and avascular necrosis of more than 50%.

National Institute for Health and Care Excellence

In 2014, NICE updated its guidance on THA and total hip resurfacing for end-stage arthritis of the hip. NICE concluded that both THA and total hip resurfacing were options for treating end-stage

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arthritis of the hip, although clinicians may be more likely to offer resurfacing arthroplasty to men than to women because of higher revision rates observed in women. NICE concluded that THA was more effective and less costly than total hip resurfacing in all analyses, that the revision rate was the most important key driver of costs and quality-adjusted life years, and that because the predicted revision rate of THA was less than 5% at 10 years in the population for whom both THA and total hip resurfacing were suitable, the revision rate standard for total hip resurfacing should be the same as that for THA. NICE recommended specific prostheses for THA and total hip resurfacing only if the prostheses have revision rates of 5% or less at 10 years.

U.S. Preventive Services Task Force Recommendations

Not applicable.

Medicare National Coverage

There is no national coverage determination. In the absence of a national coverage determination, coverage decisions are left to the discretion of local Medicare carriers.

Ongoing and Unpublished Clinical Trials

Some currently ongoing and unpublished trials that might influence this review are listed in Table 1.

Table 1. Summary of Key Trials

NCT No.	Trial Name	Planned Enrollment	Completion Date
<i>Ongoing</i>			
NCT00611585 ^a	Birmingham Hip Resurfacing System (BHR) Post Approval Study: A Prospective, Multi-Centered Study of the Birmingham Hip Resurfacing System	360	Dec 2026

NCT: national clinical trial.

^aDenotes an industry-sponsored or cosponsored study

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References

1. Vendittoli PA, Lavigne M, Roy AG, et al. A prospective randomized clinical trial comparing metal-on-metal total hip arthroplasty and metal-on-metal total hip resurfacing in patients less than 65 years old. *Hip Int.* 2006; 16 Suppl 4: 73-81. PMID 19219833
2. Food and Drug Administration. P040033: Birmingham Hip Resurfacing (BHR) System. 2006; http://www.accessdata.fda.gov/cdrh_docs/pdf4/p040033a.pdf.
3. Australian Orthopedic Association. National Joint Replacement Registry Annual Report. Adelaide, Australia: AOA; 2006.
4. Nunley RM, Della Valle CJ, Barrack RL. Is patient selection important for hip resurfacing?. *Clin Orthop Relat Res.* Jan 2009; 467(1): 56-65. PMID 18941859
5. Quesada MJ, Marker DR, Mont MA. Metal-on-metal hip resurfacing: advantages and disadvantages. *J Arthroplasty.* Oct 2008; 23(7 Suppl): 69-73. PMID 18922377
6. Marker DR, Strimbu K, McGrath MS, et al. Resurfacing versus conventional total hip arthroplasty - review of comparative clinical and basic science studies. *Bull NYU Hosp Jt Dis.* 2009; 67(2): 120-7. PMID 19583538
7. Jiang Y, Zhang K, Die J, et al. A systematic review of modern metal-on-metal total hip resurfacing vs standard total hip arthroplasty in active young patients. *J Arthroplasty.* Apr 2011; 26(3): 419-26. PMID 20851564
8. Palazzuolo M, Bensa A, Bauer S, et al. Resurfacing Hip Arthroplasty Is a Safe and Effective Alternative to Total Hip Arthroplasty in Young Patients: A Systematic Review and Meta-Analysis. *J Clin Med.* Mar 07 2023; 12(6). PMID 36983096
9. Haddad FS, Konan S, Tahmassebi J. A prospective comparative study of cementless total hip arthroplasty and hip resurfacing in patients under the age of 55 years: a ten-year follow-up. *Bone Joint J.* May 2015; 97-B(5): 617-22. PMID 25922454
10. Mont MA, Seyler TM, Ragland PS, et al. Gait analysis of patients with resurfacing hip arthroplasty compared with hip osteoarthritis and standard total hip arthroplasty. *J Arthroplasty.* Jan 2007; 22(1): 100-8. PMID 17197316
11. Lavigne M, Therrien M, Nantel J, et al. The John Charnley Award: The functional outcome of hip resurfacing and large-head THA is the same: a randomized, double-blind study. *Clin Orthop Relat Res.* Feb 2010; 468(2): 326-36. PMID 19543863
12. Garbuz DS, Tanzer M, Greidanus NV, et al. The John Charnley Award: Metal-on-metal hip resurfacing versus large-diameter head metal-on-metal total hip arthroplasty: a randomized clinical trial. *Clin Orthop Relat Res.* Feb 2010; 468(2): 318-25. PMID 19697090

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13. Kumar P, Ksheersagar V, Aggarwal S, et al. Complications and mid to long term outcomes for hip resurfacing versus total hip replacement: a systematic review and meta-analysis. *Eur J Orthop Surg Traumatol.* Jul 2023; 33(5): 1495-1504. PMID 36006506
14. Davey MS, Mohan K, Gavin E, et al. Birmingham hip resurfacing: a systematic review of outcomes at minimum 10-years follow-up. *Acta Orthop Belg.* Dec 2023; 89(4): 581-586. PMID 38205745
15. Azam MQ, McMahan S, Hawdon G, et al. Survivorship and clinical outcome of Birmingham hip resurfacing: a minimum ten years' follow-up. *Int Orthop.* Jan 2016; 40(1): 1-7. PMID 25820838
16. Daniel J, Pradhan C, Ziaee H, et al. Results of Birmingham hip resurfacing at 12 to 15 years: a single-surgeon series. *Bone Joint J.* Oct 2014; 96-B(10): 1298-306. PMID 25274912
17. Murray DW, Grammatopoulos G, Pandit H, et al. The ten-year survival of the Birmingham hip resurfacing: an independent series. *J Bone Joint Surg Br.* Sep 2012; 94(9): 1180-6. PMID 22933488
18. Matharu GS, McBryde CW, Pynsent WB, et al. The outcome of the Birmingham Hip Resurfacing in patients aged 50 years up to 14 years post-operatively. *Bone Joint J.* Sep 2013; 95-B(9): 1172-7. PMID 23997127
19. Pailhe R, Matharu GS, Sharma A, et al. Survival and functional outcome of the Birmingham Hip Resurfacing system in patients aged 65 and older at up to ten years of follow-up. *Int Orthop.* Jun 2014; 38(6): 1139-45. PMID 24370976
20. Bourget-Murray J, Watt Kearns SJ, Piroozfar S, et al. Birmingham Hip Resurfacing for osteoarthritis - a Canadian retrospective cohort study with a minimum 10-year follow-up. *Can J Surg.* 2022; 65(3): E296-E302. PMID 35504661
21. Van Der Straeten C, Gross TP, Amstutz H, et al. Hip resurfacing arthroplasty in young patients: international high-volume centres' report on the outcome of 11,382 metal-on-metal hip resurfacing arthroplasties in patients ≤ 50 years at surgery. *Hip Int.* May 2022; 32(3): 353-362. PMID 32905713
22. Amstutz HC, Le Duff MJ, Campbell PA, et al. Clinical and radiographic results of metal-on-metal hip resurfacing with a minimum ten-year follow-up. *J Bone Joint Surg Am.* Nov 17 2010; 92(16): 2663-71. PMID 21084576
23. Kim PR, Beaulé PE, Laflamme GY, et al. Causes of early failure in a multicenter clinical trial of hip resurfacing. *J Arthroplasty.* Sep 2008; 23(6 Suppl 1): 44-9. PMID 18722302

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24. Gross TP, Liu F, Webb LA. Clinical outcome of the metal-on-metal hybrid Corin Cormet 2000 hip resurfacing system: an up to 11-year follow-up study. *J Arthroplasty*. Apr 2012; 27(4): 533-538.e1. PMID 21908168
25. Lass R, Bechler U, Springer B, et al. Midterm results of the Birmingham hip resurfacing: a single-surgeon series. *Arch Orthop Trauma Surg*. Feb 2023; 143(2): 1041-1048. PMID 35076766
26. Nunley RM, Zhu J, Brooks PJ, et al. The learning curve for adopting hip resurfacing among hip specialists. *Clin Orthop Relat Res*. Feb 2010; 468(2): 382-91. PMID 19779950
27. McGrath MS, Marker DR, Seyler TM, et al. Surface replacement is comparable to primary total hip arthroplasty. *Clin Orthop Relat Res*. Jan 2009; 467(1): 94-100. PMID 18797977
28. de Steiger RN, Miller LN, Prosser GH, et al. Poor outcome of revised resurfacing hip arthroplasty. *Acta Orthop*. Feb 2010; 81(1): 72-6. PMID 20170416
29. Stoney J, Graves SE, de Steiger RN, et al. Is the Survivorship of Birmingham Hip Resurfacing Better Than Selected Conventional Hip Arthroplasties in Men Younger Than 65 Years of Age? A Study from the Australian Orthopaedic Association National Joint Replacement Registry. *Clin Orthop Relat Res*. Nov 2020; 478(11): 2625-2636. PMID 32898048
30. Su EP, Ho H, Bhal V, et al. Results of the First U.S. FDA-Approved Hip Resurfacing Device at 10-Year Follow-up. *J Bone Joint Surg Am*. Jul 21 2021; 103(14): 1303-1311. PMID 33999875
31. Reito A, Puolakka T, Elo P, et al. Outcome of Birmingham hip resurfacing at ten years: role of routine whole blood metal ion measurements in screening for pseudotumours. *Int Orthop*. Nov 2014; 38(11): 2251-7. PMID 25030963
32. Williams DH, Greidanus NV, Masri BA, et al. Prevalence of pseudotumor in asymptomatic patients after metal-on-metal hip arthroplasty. *J Bone Joint Surg Am*. Dec 07 2011; 93(23): 2164-71. PMID 22159851
33. Kwon YM, Ostlere SJ, McLardy-Smith P, et al. "Asymptomatic" pseudotumors after metal-on-metal hip resurfacing arthroplasty: prevalence and metal ion study. *J Arthroplasty*. Jun 2011; 26(4): 511-8. PMID 20591612
34. Steffen RT, Pandit HP, Palan J, et al. The five-year results of the Birmingham Hip Resurfacing arthroplasty: an independent series. *J Bone Joint Surg Br*. Apr 2008; 90(4): 436-41. PMID 18378915
35. Ollivere B, Darrah C, Barker T, et al. Early clinical failure of the Birmingham metal-on-metal hip resurfacing is associated with metallosis and soft-tissue necrosis. *J Bone Joint Surg Br*. Aug 2009; 91(8): 1025-30. PMID 19651828

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36. Mont MA, Seyler TM, Ulrich SD, et al. Effect of changing indications and techniques on total hip resurfacing. Clin Orthop Relat Res. Dec 2007; 465: 63-70. PMID 17891034
37. Grecula MJ. Resurfacing arthroplasty in osteonecrosis of the hip. Orthop Clin North Am. Apr 2005; 36(2): 231-42, x. PMID 15833461
38. Stulberg BN, Fitts SM, Zadzilka JD, et al. Resurfacing arthroplasty for patients with osteonecrosis. Bull NYU Hosp Jt Dis. 2009; 67(2): 138-41. PMID 19583542
39. Beulé PE, Amstutz HC, Le Duff M, et al. Surface arthroplasty for osteonecrosis of the hip: hemiresurfacing versus metal-on-metal hybrid resurfacing. J Arthroplasty. Dec 2004; 19(8 Suppl 3): 54-8. PMID 15578554
40. McGrory B, Barrack R, Lachiewicz PF, et al. Modern metal-on-metal hip resurfacing. J Am Acad Orthop Surg. May 2010; 18(5): 306-14. PMID 20435881
41. Lombardi AV, Barrack RL, Berend KR, et al. The Hip Society: algorithmic approach to diagnosis and management of metal-on-metal arthroplasty. J Bone Joint Surg Br. Nov 2012; 94(11 Suppl A): 14-8. PMID 23118373
42. National Institute for Health and Care Excellence (NICE). Total hip replacement and resurfacing arthroplasty for end-stage arthritis of the hip [TA304]. 2014; <https://www.nice.org.uk/guidance/ta304>.

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| 09/04/2002 | Medical Policy Committee review |
| 09/18/2002 | Managed Care Advisory Council approval |
| 11/02/2004 | Medical Director review |
| 11/16/2004 | Medical Policy Committee review. Format revision. Clinical criteria revised. |
| 11/29/2004 | Managed Care Advisory Council approval |
| 07/07/2006 | Format revision including addition of FDA and or other governmental regulatory approval and rationale/source. Coverage eligibility unchanged. |
| 12/06/2006 | Medical Director review |
| 12/20/2006 | Medical Policy Committee approval. Coverage eligibility unchanged. |
| 06/13/2007 | Medical Director review |
| 06/20/2007 | Medical Policy Committee approval. Metal-on-metal total hip resurfacing with an FDA-approved device system now may be considered medically necessary as an |

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Policy # 00119

Original Effective Date: 09/18/2002

Current Effective Date: 11/11/2024

alternative to total hip replacement in patients who are candidates for total hip replacement and who are likely to outlive a traditional prosthesis. All other types and applications of total hip resurfacing remain investigational.

08/06/2008	Medical Director review
08/20/2008	Medical Policy Committee approval. Eligible for coverage with added contraindications. Updated rationale.
08/06/2009	Medical Policy Committee approval
08/26/2009	Medical Policy Implementation Committee approval. No change to coverage eligibility.
08/05/2010	Medical Policy Committee review
08/18/2010	Medical Policy Implementation Committee approval. Statement added for partial resurfacing; considered medically necessary in specific conditions. Title changed to Hip Resurfacing.
08/04/2011	Medical Policy Committee review
08/17/2011	Medical Policy Implementation Committee approval. No change to coverage.
08/02/2012	Medical Policy Committee review
08/15/2012	Medical Policy Implementation Committee approval. No change to coverage.
09/05/2013	Medical Policy Committee review
09/18/2013	Medical Policy Implementation Committee approval. No change to coverage.
11/06/2014	Medical Policy Committee review
11/21/2014	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
08/03/2015	Coding update: ICD10 Diagnosis code section added; ICD9 Procedure code section removed
10/29/2015	Medical Policy Committee review
11/16/2015	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
11/03/2016	Medical Policy Committee review
11/16/2016	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
01/01/2017	Coding update: Removing ICD-9 Diagnosis Codes
11/02/2017	Medical Policy Committee review
11/15/2017	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.

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- 11/08/2018 Medical Policy Committee review
- 11/21/2018 Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
- 11/07/2019 Medical Policy Committee review
- 11/13/2019 Medical Policy Implementation Committee approval. Added a Policy Guidelines section. Coverage eligibility unchanged.
- 04/02/2020 Medical Policy Committee review
- 04/08/2020 Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
- 04/01/2021 Medical Policy Committee review
- 04/14/2021 Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
- 04/07/2022 Medical Policy Committee review
- 04/13/2022 Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
- 04/06/2023 Medical Policy Committee review
- 04/12/2023 Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
- 10/05/2023 Medical Policy Committee review
- 10/11/2023 Medical Policy Implementation Committee approval. Replaced “patients” and ”females” with “individuals” in the Coverage and Policy Guidelines sections. Removed Contraindications for Total Hip Resurfacing from the Coverage section, and kept it in the Policy Guidelines section. Coverage eligibility unchanged.
- 10/03/2024 Medical Policy Committee review
- 10/08/2024 Medical Policy Implementation Committee approval. Coverage eligibility unchanged.

Next Scheduled Review Date: 10/2025

Coding

The five character codes included in the Blue Cross Blue Shield of Louisiana Medical Policy Coverage Guidelines are obtained from Current Procedural Terminology (CPT®)†, copyright 2023 by the American Medical Association (AMA). CPT is developed by the AMA as a listing of

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descriptive terms and five character identifying codes and modifiers for reporting medical services and procedures performed by physician.

The responsibility for the content of Blue Cross Blue Shield of Louisiana Medical Policy Coverage Guidelines is with Blue Cross and Blue Shield of Louisiana and no endorsement by the AMA is intended or should be implied. The AMA disclaims responsibility for any consequences or liability attributable or related to any use, nonuse or interpretation of information contained in Blue Cross Blue Shield of Louisiana Medical Policy Coverage Guidelines. Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein. Any use of CPT outside of Blue Cross Blue Shield of Louisiana Medical Policy Coverage Guidelines should refer to the most current Current Procedural Terminology which contains the complete and most current listing of CPT codes and descriptive terms. Applicable FARS/DFARS apply.

CPT is a registered trademark of the American Medical Association.

Codes used to identify services associated with this policy may include (but may not be limited to) the following:

Code Type	Code
CPT	27299
HCPCS	S2118
ICD-10 Diagnosis	All related diagnoses

*Investigational – A medical treatment, procedure, drug, device, or biological product is Investigational if the effectiveness has not been clearly tested and it has not been incorporated into standard medical practice. Any determination we make that a medical treatment, procedure, drug, device, or biological product is Investigational will be based on a consideration of the following:

- A. Whether the medical treatment, procedure, drug, device, or biological product can be lawfully marketed without approval of the U.S. Food and Drug Administration (FDA) and whether such approval has been granted at the time the medical treatment, procedure, drug, device, or biological product is sought to be furnished; or

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- B. Whether the medical treatment, procedure, drug, device, or biological product requires further studies or clinical trials to determine its maximum tolerated dose, toxicity, safety, effectiveness, or effectiveness as compared with the standard means of treatment or diagnosis, must improve health outcomes, according to the consensus of opinion among experts as shown by reliable evidence, including:
1. Consultation with technology evaluation center(s);
 2. Credible scientific evidence published in peer-reviewed medical literature generally recognized by the relevant medical community; or
 3. Reference to federal regulations.

****Medically Necessary (or “Medical Necessity”)** - Health care services, treatment, procedures, equipment, drugs, devices, items or supplies that a Provider, exercising prudent clinical judgment, would provide to a patient for the purpose of preventing, evaluating, diagnosing or treating an illness, injury, disease or its symptoms, and that are:

- A. In accordance with nationally accepted standards of medical practice;
- B. Clinically appropriate, in terms of type, frequency, extent, level of care, site and duration, and considered effective for the patient's illness, injury or disease; and
- C. Not primarily for the personal comfort or convenience of the patient, physician or other health care provider, and not more costly than an alternative service or sequence of services at least as likely to produce equivalent therapeutic or diagnostic results as to the diagnosis or treatment of that patient's illness, injury or disease.

For these purposes, “nationally accepted standards of medical practice” means standards that are based on credible scientific evidence published in peer-reviewed medical literature generally recognized by the relevant medical community, Physician Specialty Society recommendations and the views of Physicians practicing in relevant clinical areas and any other relevant factors.

‡ Indicated trademarks are the registered trademarks of their respective owners.

NOTICE: If the Patient’s health insurance contract contains language that differs from the BCBSLA Medical Policy definition noted above, the definition in the health insurance contract will be relied upon for specific coverage determinations.

NOTICE: Medical Policies are scientific based opinions, provided solely for coverage and informational purposes. Medical Policies should not be construed to suggest that the Company

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recommends, advocates, requires, encourages, or discourages any particular treatment, procedure, or service, or any particular course of treatment, procedure, or service.

NOTICE: Federal and State law, as well as contract language, including definitions and specific contract provisions/exclusions, take precedence over Medical Policy and must be considered first in determining eligibility for coverage.

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