

SUBJECT: METAL-ON-METAL TOTAL HIP RESURFACING

POLICY NUMBER: 7.01.74

CATEGORY: Technology Assessment

EFFECTIVE DATE: 06/15/06

**REVISED DATE: 07/19/07, 05/14/08, 04/16/09, 03/18/10,
02/17/11, 02/16/12**

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- *If the member's subscriber contract excludes coverage for a specific service it is not covered under that contract. In such cases, medical policy criteria are not applied.*
- *Medical policies apply to commercial and Medicaid products only when a contract benefit for the specific service exists.*
- *Medical policies only apply to Medicare products when a contract benefit exists and where there are no National or Local Medicare coverage decisions for the specific service.*

POLICY STATEMENT:

- I. Based upon our criteria and assessment of the peer-reviewed literature, use of an FDA approved metal-on-metal hip resurfacing device has been medically proven to be effective and therefore **medically appropriate** for patients meeting all of the following criteria:
 - A. Younger than 65 years of age;
 - B. With bone stock adequate to support the device;
 - C. Who require hip replacement due to degenerative or inflammatory joint disease; and
 - D. Who are likely, because of age or activity level, to outlive a traditional prosthesis.
- II. Based upon our criteria and assessment of peer-reviewed literature, any other applications (e.g., developmental hip dysplasia, ankylosing spondylitis) of total hip resurfacing have not been medically proven to be effective and therefore are considered **investigational**.

POLICY GUIDELINES:

This policy does not address *partial* hip resurfacing involving resurfacing of only the femoral component.

DESCRIPTION:

Total hip resurfacing is an alternative to watchful waiting or total hip arthroplasty for younger, active patients with hip diseases including osteoarthritis, rheumatoid arthritis, and advanced avascular necrosis.

In total hip resurfacing, the surface of the femoral head is trimmed and covered with a hollow metal hemisphere that fits into a metal acetabular cup. It is believed to optimize stress transfer to the proximal femur, and, because of the large diameter of the articulation, to offer stability and optimal range of movement. Because resurfacing preserves proximal femoral bone stock, it may not compromise future total hip replacements.

Partial hip resurfacing (of the femoral component only) has been proposed as a treatment option for avascular necrosis with collapse of the femoral head and preservation of the acetabulum.

RATIONALE:

The Birmingham Hip Resurfacing Device (BHR), a metal on metal system, received FDA premarket approval in May 2006. The Cormet Hip Resurfacing system, a metal-on-metal system, received FDA premarket approval in July 2007. The Buechel-Pappas Integrated Total Hip Replacement, has been approved by the FDA for total hip resurfacing. The weight bearing surfaces of this device are composed of a metal femoral component and a polyethylene acetabular component. The Conserve® Plus device, a metal-on-metal system, received FDA approval in November 2009.

Long-term outcomes of metal-on-metal hip resurfacing are not available. However, evidence from numerous case series demonstrates symptomatic and functional improvements that appear to be comparable to those obtained with the current generation of total hip replacement in patients less than 65 years old at similar follow-up duration. In addition, because hip resurfacing leaves femoral bone stock intact, revision is technically similar to primary total hip replacement.

Increased concentrations of metal ions have been documented after metal-on-metal hip resurfacing, however the effects of this, if any, are not known. The effect of metal ion release on the fetus is not known.

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In February 2007, a BCBSA TEC Assessment reviewed evidence published through January 2007 on metal-on-metal total hip resurfacing. The Assessment evaluated studies of individuals with advanced degenerative joint disease of the hip who received a hip resurfacing (HR) device and that reported data on short- and long-term clinical outcomes, including benefits and harms, as an alternative to total hip replacement (THA). TEC identified 1 randomized controlled trial, and 12 uncontrolled series. For the assessment, these published trials, the FDA PMA submission data, and information from the Australian Orthopedic Association (AOA) National Joint Replacement Registry were evaluated. TEC concluded that use of the FDA-approved metal-on-metal HR devices meets the TEC criteria as an alternative to THA in patients who are candidates for THA and who are likely to outlive a traditional prosthesis. A substantial body of evidence shows that total hip resurfacing is associated with consistent and strong symptomatic and functional improvements comparable to those obtained with current total hip arthroplasty in patients less than 65 years old. Total hip resurfacing differs procedurally from arthroplasty in conserving a patient's native femoral bone stock; this difference is important should subsequent revision surgery be required. The available evidence shows that HR's short-term symptomatic and functional health benefits are at least as good as those of THA over midterm follow-up, with no substantial differences in revision rates, among patients younger than 65 years who are likely to outlive a traditional prosthesis. Also, inference from the available long-term evidence suggests that HR will be at least as beneficial as THA in patients who are likely to outlive a traditional prosthesis, based on 1) appropriate patient selection, 2) the fact that HR is a bone-conserving procedure that preserves the femoral head and stock largely intact, and 3) substantial 5-year follow-up of device survival.

There is minimal published medical literature regarding total hip resurfacing using polyethylene components. More studies are emerging investigating total hip resurfacing as a treatment for developmental dysplasia of the hip (DDH). Outcomes of studies thus far are insufficient to determine the overall health outcome of hip resurfacing in this patient population (Li, et al. 2009, Naal, et al. 2009, McBryde, et al. 2008).

CODES: Number Description

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.

CPT: No specific codes

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

ICD9: 715.15 Osteoarthritis, localized, primary, pelvic region and thigh
715.25 Osteoarthritis, localized, secondary, pelvic region and thigh
715.35 Osteoarthritis, localized, not specified as primary or secondary, pelvic region and thigh
715.95 Osteoarthritis, not specified as generalized or localized, pelvic region and thigh
733.42 Aseptic necrosis of head and neck of femur

ICD10: M16.0-M16.9 Osteoarthritis of hip (code range)
M87.050 Idiopathic aseptic necrosis of pelvis
M87.051-M87.059 Idiopathic aseptic necrosis of femur (code range)

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M87.150	Osteonecrosis due to drugs, pelvis
M87.151-M87.159	Osteonecrosis due to drugs, femur (code range)
M87.250	Osteonecrosis due to previous trauma, pelvis
M87.251-M87.256	Osteonecrosis due to previous trauma, femur (code range)
M87.350	Other secondary osteonecrosis, pelvis
M87.351-M87.353	Other secondary osteonecrosis, femur (code range)
M87.850	Other osteonecrosis, pelvis
M87.851-M87.859	Other osteonecrosis, femur (code range)

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KEY WORDS:

Hip Resurfacing

CMS COVERAGE FOR MEDICARE PRODUCT MEMBERS

Based on our review, total hip resurfacing is not specifically addressed in National or Regional Medicare coverage determinations or policies.