



# CIGNA MEDICAL COVERAGE POLICY

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Effective Date .....4/15/2011  
Next Review Date.....4/15/2012  
Coverage Policy Number .....0460

Subject Hip Resurfacing Arthroplasty

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## Hyperlink to Related Coverage Policies

Hip Surgery for Femoroacetabular  
Impingement (FAI) Syndrome  
Minimally Invasive Total Hip Arthroplasty  
Total Hip Replacement with Metal-On-Metal  
and Ceramic-On-Ceramic Prostheses

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## Coverage Policy

CIGNA covers partial hip resurfacing arthroplasty as medically necessary for the treatment of osteonecrosis (i.e., avascular necrosis, aseptic necrosis, ischemic necrosis) of the femoral head when there is failure, contraindication or intolerance to nonsurgical management (e.g., limit activity and weight bearing, range-of-motion exercises, pharmacotherapy).

CIGNA covers total hip resurfacing arthroplasty as medically necessary when an individual has met ALL of the following criteria:

- diagnosis of noninflammatory arthritis including osteoarthritis or osteonecrosis (i.e., avascular necrosis, aseptic necrosis, ischemic necrosis), traumatic arthritis, or inflammatory arthritis (e.g., rheumatoid arthritis, psoriatic arthritis) involving the hip
- candidate for total hip replacement
- age less than 65 years
- failed nonsurgical management (e.g., limit activity and weight bearing, range-of-motion exercises, pharmacotherapy)

CIGNA does not cover hip resurfacing arthroplasty, partial or total, for any other indication because it is considered experimental, investigational or unproven.

## General Background

Hip resurfacing arthroplasty (HRA) is a procedure which involves the removal of diseased cartilage and bone from the head of the femur, and the replacement of the surface of the femoral head with a hollow metal hemisphere that fits into the acetabulum of the pelvis. An HRA procedure may be either a partial HRA (i.e., hemi-hip resurfacing, hemiresurfacing or femoral head resurfacing arthroplasty [FHRA]) or a total HRA, also called metal-on-metal (MOM) hip resurfacing.

### **Partial Hip Resurfacing**

A partial HRA involves the removal and replacement of the surface of the femoral head when there is a healthy, stable acetabulum. Partial HRA is a bone-conserving surgical option for the treatment of osteonecrosis and can delay the need for a total hip replacement (THR). Osteonecrosis, also called avascular necrosis, aseptic necrosis and ischemic necrosis, is initially treated by conservative medical therapies including: the use of assistive devices such as canes, crutches or walkers; limited activity and weight bearing; exercise to increase range-of-motion of the joint; weight loss, and pharmacotherapy. If nonsurgical management is ineffective, contraindicated or not tolerated by the patient, surgical intervention including partial HRA may be indicated (National Institute of Arthritis and Musculoskeletal and Skin Diseases [NIAMS], 2009; Mont, et al., 2006; Grecula, 2005).

**U.S. Food and Drug Administration (FDA):** Femoral cap prostheses used in partial HRAs are regulated and approved as a FDA 510(k) Class II device. An example of this device is the Conserve<sup>®</sup> Femoral Resurfacing Component (Wright Medical Technology, Arlington, TN). The device is indicated for “use in hemi resurfacing for reduction or relief of pain and/or improved hip function in skeletally mature patients with non-inflammatory degenerative joint disease such as osteoarthritis, avascular necrosis, ankylosis, protrusion acetabuli, and painful hip dysplasia” (FDA 2006).

**Literature Review:** Partial HRA is an established surgical intervention for the treatment of osteonecrosis refractory to nonsurgical treatment. Although the evidence is primarily in the form of case series and retrospective reviews the outcomes support the safety and efficacy of this patient population. Outcomes were measured by clinical evaluation, radiographic examination, the University of California Los Angeles (UCLA) hip score, Harris Hip score, and the Short-Form (SF)-12 survey. Overall, improvements in hip scores including diminished pain and increased activity were reported. Prosthesis survivorship was as high as 90% at a mean 7-year follow-up. Compared to THR, HRA incurred less bone stock loss. Overall, partial HRA outcomes were reported to be as good as THR and in some cases, functional outcomes following partial HRA were better than THR. Revisions to THR following a partial HRA were reported to be as simple as a primary THR (Amstutz and LeDuff, 2009; McGrath, et al., 2009; Grecula, et al., 2004; Beaulé, et al., 2004; Adili and Trousdale, 2003; Beaulé, et al., 2001; Mont, et al., 2001).

In a 2006 technology assessment on hip replacement, the Agency for Healthcare Research and Quality (AHRQ) stated that partial hip resurfacing has a role in the treatment of young patients (i.e., ideally less than age 40 years) with osteonecrosis who may need to delay THR.

### **Total Hip Resurfacing**

A total HRA involves replacement of the femoral shell and the acetabulum cup. A total metal-on-metal HRA is proposed for adults, less than age 65 years, with a diagnosis of noninflammatory arthritis such as osteoarthritis, osteonecrosis (i.e., avascular necrosis, aseptic necrosis, ischemic necrosis) or traumatic arthritis. Total hip resurfacing may also be indicated for inflammatory arthritis conditions such as rheumatoid arthritis or psoriatic arthritis. These patients may suffer from chronic pain and disability that are refractory to conservative therapy (e.g., analgesics, nonsteroidal anti-inflammatory drugs, physical therapy, walking aids, and avoidance of pain-producing activities) indicating the need for surgical intervention.

Prior to HRA, total hip replacement (THR) was the surgical treatment of choice. THR involves the replacement of the entire femoral head and stem with a metal prosthesis. During a total HRA, only the top of the femoral head is removed, conserving most of the femoral head and neck. Younger surgical candidates are more likely to outlive a THR prosthesis due to a high activity load that can lead to shortened life of the prosthesis and loosening and dislocation of the component. Total HRA is proposed to allow the younger, active patient to avoid multiple THR revisions and/or delay the need for a THR procedure. THR revisions are more difficult to perform, and outcomes are generally not as successful as those seen with an initial THR. Studies have shown that in men under age 50, the functional utility of THR prostheses drops to 80% at 10 years and 33% at 16 years,

requiring a second surgery to replace the device. The total HRA may not last longer than a THR, but it is proposed to be easier to convert to a primary THR because the femoral canal is intact and the proximal femoral bone density is preserved (ECRI, 2010; Amstutz, et al., 2006; Mont, et al., 2006; Moroni, 2006; Cutts and Carter, 2006; Shimmin, et al., 2005; Itayem, et al., 2005; Grigoris, et al., 2005).

**U.S. Food and Drug Administration (FDA):** Total hip resurfacing systems are approved by the FDA Premarket Approval (PMA) process. The three FDA approved total hip resurfacing systems include the Birmingham Hip Resurfacing (BHR) System (Smith & Nephew Inc., Memphis, TN), the Cormet Hip Resurfacing System™ (Corin USA, Tampa, FLA) and the CONSERVE® Plus Total Resurfacing Hip System (Wright Medical Technology, Inc., Arlington, TN). These devices are intended for hybrid fixation (i.e., cemented femoral head and cementless acetabular component) and for use in patients with noninflammatory arthritis (degenerative joint disease) such as osteoarthritis, traumatic arthritis and avascular necrosis), dysplasia, or developmental dislocation of the hip or for patients with inflammatory arthritis (e.g., rheumatoid arthritis). Due to young age and activity level, the patient is typically not a suitable candidate for THR because of the possibility of requiring future ipsilateral hip joint revision (FDA, 2009; FDA, 2007; FDA, 2006).

Contraindications for total HRA include (FDA, 2007; FDA, 2005):

- patients with active or suspected infection in or around the hip joint
- patients who are skeletally immature
- patients with poor bone stock inadequate to support the device including:
  - patients with severe osteopenia
  - patients with a family history of severe osteoporosis or severe osteopenia
  - patients with osteonecrosis or avascular necrosis (AVN) with > 50% involvement of the femoral head (regardless of Ficat Grade)
  - patients with multiple cysts of the femoral head (> 1 cm)
- patients with any vascular insufficiency, muscular atrophy, or neuromuscular disease severe enough to compromise implant stability or postoperative recovery
- females of child bearing age due to unknown effects on the fetus of metal ion release
- patients with known moderate or severe renal insufficiency
- patients who are immunosuppressed with diseases such as AIDS or persons receiving high doses of corticosteroids
- tall, thin patients
- patients who are severely overweight
- patients with known or suspected metal sensitivity (e.g., jewelry)

**Literature Review:** Systematic reviews, meta-analysis, randomized controlled trials, prospective case series and retrospective reviews have reported outcomes of total hip resurfacing using an FDA approved hip resurfacing system. Diagnoses included osteoarthritis with and without hip dysplasia or dislocation, rheumatoid arthritis, and avascular necrosis. Follow-ups were reported for up to 9.5 years with a 93.2–99.14% prostheses survivorship. Outcomes were measured by clinical evaluation, radiological examinations, Oxford hip scores, Harris Hip scores, UCLA hip scores, SF-12 scores, step-activity and return to sports activity (e.g., running, hiking, tennis). Following total HRA, statistically significant improvements were reported in most hip scores including increased activity, diminished pain, increased joint stability, full weight bearing and increased range-of-motion. Overall, similar or better outcomes were reported following total HRA compared to THR at short- to midterm follow-ups (2.0–9.5 years) (Garbuz, et al., 2010; Lavigne, et al., 2010; Marker, et al., 2009; Amstutz, et al., 2007; Hing, et al., Nov 2007; Nishii, et al., 2007; Pollard, et al., 2006; Revell, et al., 2006; Back, et al., 2005; Liliakakis, et al., 2005; Loughhead, et al., 2005; Treacy, et al., 2005; Daniel, et al., 2004).

Although total HRA is an established alternative to THR in a carefully selected subset of individuals, long-term outcomes are lacking. There are ongoing concerns and investigations regarding failure rates and revision rates due to femoral neck fractures, acetabular and/or femoral neck component loosening, and avascular necrosis. The effects of metallosis from elevated cobalt and chromium serum levels, postoperative femoral neck narrowing, and heterotopic bone formation are unknown. It is yet to be established if converting to a THR

following a total HRA is more successful and beneficial than the revision of a primary THR (FDA, 2011; California Technology Assessment Forum, 2010; Carrothers, et al., 2010; Smith, et al., 2010).

Carrothers et al. (2010) prospectively collected data on 5000 Birmingham HRA and analyzed the rate and reasons for failure. The mean age at the time of surgery was 52.5 years (range 13–87). A total of 4524 devices survived a mean 7.1 years (range 0.2–11.0 years). Revisions were required in 182 cases (3.6%). Reasons for the revisions included: femur neck fracture (54 hips, 1.1%), acetabular component loosening (32 hips, 0.6%), femoral head collapse/avascular necrosis (AVN) (30 hips, 0.6%), femoral component loosening (19 hips, 0.4%), infection (17 hips, 0.3%), pain with aseptic lymphocytic vascular and associated lesions (ALVAL)/metallosis (15 hips, 0.3%), loosening of both components (five hips, 0.1%), dislocation (five hips, 0.1%), and acetabular component malposition (three hips, 0.1%). The cause of two failures was unknown. Women had a significantly higher prevalence of revision for any reason compared to men ( $p<0.001$ ). The mean time to failure was 2.9 years (range, 0.003–11 years) with a significantly shorter time to failure in men than women ( $p<0.001$ ). Compared to men, women had significantly more revisions for acetabular component loosening ( $p<0.001$ ), dislocation ( $p=0.004$ ), infection ( $p=0.008$ ) and pain with ALVAL/metallosis ( $p=0.01$ ). The authors noted that a limitation of the study was the absence of objective radiological follow-up.

Smith et al. (2010) conducted a systematic review and meta-analysis to compare the clinical outcomes of total HRA (3799 hips) to THR (3282 hips). The review included 46 randomized controlled trials ( $n=10$ ), prospective observational studies ( $n=28$ ) and retrospective reviews ( $n=8$ ) that met inclusion criteria. Outcome measures included frequency of revision surgery, incision length, last acetabular reamer size, duration of operation, blood loss and frequency of blood transfusions, length of hospital stay, pain, functional outcomes, quality of life outcomes, hip range of motion, radiological outcomes and complications. The mean age for the HRA group was 51 years compared to 54 years in the THR group. Follow-ups ranged from immediate postoperative to 82 months. Compared to HRA, there was a significantly higher Western Ontario and McMaster Osteoarthritic (WOMAC) score in the THR group, indicating poorer functional ability ( $p=0.001$ ). THR patients had significantly greater difficulty in undertaking a step-test task ( $p<0.0014$ ). The Harris Hip score (HHS) range of motion ( $p<0.001$ ) and overall HHS ( $p=0.001$ ) were significantly better in the HRA patients. There were no statistically significant differences between HRA and THR patients regarding Merle d'Aubigne indexes, University of California at Los Angeles (UCLA) hip scores, Oxford hip scores, hop test results, and the Short Form-12 mental components. Likewise, there were no statistically significant differences in mean incision length, pain scores, presence of groin or thigh pain, range of motion and patient satisfaction outcomes between HRA and THR. There was a significantly greater requirement for blood transfusion ( $p<0.001$ ) and hospital stays following THR ( $p=0.002$ ), but longer HRA operative times ( $p<0.001$ ). However there were no clinically significant differences between the two groups. The only significantly different radiological outcome was a higher presence of heterotopic ossification in HRA patients ( $p=0.006$ ). Compared to THR, there was a significantly higher revision rate following HRA ( $p=0.003$ ) and greater risk of aseptic loosening ( $p=0.003$ ). There was a reduced risk of dislocation following HRA ( $p<0.001$ ). The authors noted that the evidence base included numerous methodological flaws including the high levels of statistical heterogeneity, limited use of power calculations and poor or absent blinding of patients and assessors. The implantation of various hip replacement systems and femoral head sizes was another limitation of the studies. Outcomes were not determined by prosthesis type, age or sex. From their analysis, the authors concluded that functional outcomes follow total HRA were as good as or better than THR, and that there was an increased risk of heterotopic ossification, aseptic loosening and revision following HRA.

McBryde et al. (2010) analyzed prospectively collected data on 2123 Birmingham Hip resurfacing patients (799 female and 1324 male patients) to determine the differences in survival rates and functional outcomes of HRA in males and females. Primary diagnosis was osteoarthritis. A total of 1916 patients had complete follow-up data with a mean follow-up of 3.46 years (range 0.003–10.9 years). The mean age at time of implantation was  $55 \pm 9.2$  years. Fracture of the neck of the femur was the most common reason for the 48 revisions. This complication occurred in patients who were significantly older ( $p=0.002$ ) with no significant differences in males and females. Other reasons for revision included acetabular component loosening, pain and infection. Revisions were significantly associated with female sex ( $p=0.014$ ) and decreasing femoral component size ( $P<0.001$ ), but not with age, surgeon experience or surgical approach. Femoral component size was the best predictor of revision ( $p<0.01$ ). A 4.87-times increase in risk of revision per year was associated with every 4-mm decrease in component size. Females had a higher preoperative and postoperative Oxford Score, but there was no significant difference in the overall improvement in the Oxford Hip Scores between males and females. The authors noted that the data showed that it was the difference in the size of the femoral component that

explained the higher rate of revision in females compared to males. The risk was the same in men and women who underwent implantation of the same size femoral component. Author-noted limitations of the study included: the statistical analysis did not take into account patient comorbidities (e.g., alcohol, smoking); overall, patients who underwent HRA were younger and had fewer comorbidities than older patients who underwent THR; preoperative bone mineral density was not assessed; radiographs were not reviewed; and the use of revision of the prosthesis as the end point may have not identified failing hips that had not reached the point of revision at the time of the study.

Springer et al. (2009) conducted a systematic review and meta-analysis to evaluate failure rates of cementless femoral components following total HRA compared to THR. The analysis included randomized controlled trials and observational studies that implanted FDA and non-FDA approved HRA devices. There were 22 THR studies with 5907 patients (6408 hips) with a mean average age of 41.4 years and a mean average follow-up 8.5 years. The total HRA studies (n=15) included 3002 patients (3269 hips) with a mean average age of 46.6 years and a mean average follow-up of 3.9 years. The pooled failure rate of the femoral component (i.e., revision of the femoral component for any reason) in THR was 3.1% at a mean average follow-up of 8.4 years compared to 2.7% at a mean average follow-up of 3.9 years following HRA. The mechanical failure rate (i.e., femoral revision for aseptic loosening of the femoral component) in THR was 1.3% at a mean average follow-up of 8.4 years compared to 2.6% for HRA at a mean average follow-up of 3.9 years. Following HRA, femoral component failures that required revision surgery for any reason represented 70.7% of all failures compared to 14.7% of all THR revisions. The authors suggested that longer follow-up of HRA and prospective, direct comparison trials are required to confirm these findings. Author-noted limitations of this analysis included the retrospective review, limitations of each individual study, and the potential overlap of included patients who could potentially have been reported twice in articles by the same author.

Elevated cobalt and chromium serum levels are an ongoing concern for implantation recipients. Post-operative data for up to six-years have been reported. Typically, peak values were seen during the first postoperative year and although the levels declined in subsequent years, the differences were not statistically significant. Overall, comparative studies have reported no significant differences in metal ion levels in total HRA patients vs. THR patients. Some studies reported that metal levels were higher following implantation of larger femoral head prostheses. Studies reporting long-term outcomes and ongoing patient monitoring are recommended (Vendittoli, et al., 2010; Daniel, et al., 2009; Allan, et al., 2007; Daniel, et al., 2007; Moroni, et al., 2006; Witzleb, et al., 2006).

Following total HRA, no statistically or clinically significant differences in the data at one- and two-year follow-ups compared to preoperative baselines were reported regarding hip stability and migration (Itayem, et al., 2007; Glyn-Jones, et al., 2004, respectively). Spencer et al. (2008) evaluated postoperative neck narrowing in 40 patients who underwent total HRA and reported that 90% of prostheses experienced neck narrowing during the first two years following implantation. The narrowing stabilized with no significant narrowing occurring at the observed seven year maximum follow-up.

Additional studies have evaluated heterotopic bone formation (Back, et al., 2007) and femoral neck diameter (Hing, et al., Aug 2007). The authors reported that there were no clinical and/or functional adverse outcomes as a result of these complications. Studies evaluating femoral head viability (Forrest, et al., 2006) and femoral head bone vascularity (McMahon, et al., 2006) reported that there was no identifiable osteonecrosis at 10–33 months follow-up and no visual evidence of avascular necrosis at 12–47 months postoperatively, respectively.

Following a review of the literature, the California Technology Assessment Forum<sup>®</sup> (CTAF) (2010) supported metal-on-metal total HRA as an alternative to THR. The report recommended that metal hip resurfacing, when performed by a trained physician using an FDA-approved device, was an intervention for degenerative hip disease in appropriate patients age 65 years or younger who have an active life expectancy of more than 10 to 15 years. CTAF acknowledged that questions concerning the long-term durability and complications of total HRA, the results of total HRA converted to THR, and the long-term health consequences of circulating metal ions are unknown.

A 2009 technology assessment was conducted by the American Academy of Orthopedic Surgeons in collaboration with the American Association of Hip and Knee Surgeons to summarize information on the indications, effectiveness, and failure rates of total HRA compared to THR. Eighteen articles (i.e., randomized controlled trials, prospective comparative studies, and retrospective reviews) and data from three joint registry

reports (Australian Orthopedic Association National Joint Replacement Registry [n=135,799 THR; 10,623 HRA], Swedish Hip Arthroplasty Register and National Joint Registry for England and Wales [n=182,432 THR; 5596 HRA]) met inclusion criteria. The report noted that total HRA is a worldwide treatment option that is offered for some patients with end-stage hip arthritis and modern resurfacing prostheses have been used for over ten years. However, the data did not allow identification of which particular type of patients had better outcomes than others. Although the available literature on total HRA was not of high enough quality to be conclusive, the summary of published outcomes included the following: overall, total HRA patients are at a higher risk than THR patients for revision; patients with a diagnosis of osteoarthritis are at the lowest risk for revision with either procedure; the evidence is conflicting regarding the influence of the patient's age on revision rates; and smaller prosthetic components are at a greater risk for revision. Due to the lack of data, conclusions could not be drawn on predictors of better or worse patient-oriented outcomes. The most effective treatment, hip resurfacing vs. THR, could not be determined due to the limited data. Finally, low quality studies suggested that HRA outcomes could be improved by changes in techniques and the surgeon's experience.

In a technology assessment conducted for the Washington State Health Care Authority, Hashimoto et al. (2009) analyzed evidence on the safety and efficacy of total hip resurfacing, including the potential financial impact, in patients with degenerative hip disease. The assessment included registry reports, randomized controlled trials, case series, and retrospective reviews in which FDA and non-FDA approved hip prostheses were implanted. Regarding efficacy, the authors reported that total HRA was similar to THR with respect to functional, quality of life, and activity outcomes. Regarding effectiveness, postoperative Harris hip scores were slightly higher, quality of life scores may be higher, and postoperative activity scores were significantly higher following total HRA. No significant differences were reported in postoperative level of pain. Regarding safety, there was moderate evidence that short-term revision rates, less than five years, were slightly higher following total HRA compared to THR. Low evidence directly comparing total HRA to THR suggested that short-term (< 5 years) patient-reported outcomes, clinician-based outcomes, and pain are similar comparing total HRA to THR. Activity scores tended to be slightly better following total HRA. Regarding age, the authors reported that women had a higher revision rate following total HRA, but the rates were nearly similar for those under age 55 years. In men over 65 years of age, revision rates for total HRA were higher than for THR. Revision rates for resurfacing were lower than THR in men under 65 years. The authors concluded that "resurfacing can be recommended for most young men (those with good bone quality, minimal hip deformity and DJD from a source other than post infectious arthritis), and some young women. Resurfacing at this time can be recommended for selected older patients."

The BlueCross BlueShield Association Technology Evaluation Center (TEC) (2007) published an assessment on total hip resurfacing and concluded that in patients less than age 65 years resurfacing "improves the net health outcome and is as beneficial as THR in properly selected individuals who require a total hip replacement and, because of younger age and/or higher activity levels are likely to outlive the 10 years or more functional lifespan of a traditional prosthetic device." TEC also discussed the advantage of subsequent revision to a THR following HRA due to the intact femoral head and neck.

The Ontario Health Technology Advisory Committee (2006) conducted a systematic review to evaluate total HRA as an alternative to conventional THR. Out of 245 citations, 11 studies met inclusion criteria including a systematic review, a technote, one randomized controlled trial and eight case series. The report concluded that total HRA had been shown to be an effective procedure in seven cases series with a follow-up of 2.8–3.5 years; revision rates ranged from 0.3–3.6%; femoral neck fracture occurred in 0.4–2.2% of cases; when reported, Harris Hip and SF-12 scores improved; and concerns remained regarding potential adverse effects of metal ions. According to the report the best candidates are below age 55. Ages 55–65 are considered in the "gray zone". The committee stated that "longer-term follow-up data will help to resolve the inconsistency of findings on adverse effects, including toxicity and carcinogenicity."

In a 2006 technology assessment on hip replacement including total HRA, the Agency for Healthcare Research and Quality (AHRQ) stated that total hip resurfacing is an alternative for THR in patients ideally less than age 60 years with "normal proximal femoral bone geometry and bone quality, and is expected to outlive any current conventional prosthesis". The AHRQ report also noted that clinical data on the efficacy of total hip resurfacing is limited.

### **Other Indications**

HRA has been proposed for the treatment of other conditions such as developmental dysplasia, congenital hip dysplasia, hip dislocation, Legg-Calve-Perthes disease and coxarthrosis (Amstutz, et al., 2007; Moroni, et al.,

2006; Vail, et al., 2006; Amstutz, et al., 2005). However, there is insufficient evidence in the published peer-reviewed scientific literature to support the safety and effectiveness of HRA for these conditions.

### Professional Societies/Organizations

The American Academy of Orthopedic Surgeons and the American Association of Hip and Knee Surgeons published a technology assessment in 2009 on total hip resurfacing. The assessment made no recommendation in favor of or against the procedure.

### Other Devices

Additional clinical trials have involved total hip resurfacing systems that are not FDA approved and are still under investigation for use in the United States. These devices include the Articular Surface Replacement (ASR) System (DePuy Orthopedics, Warsaw, IN), the Durom™ Hip Resurfacing System (Zimmer, Inc., Warsaw, IN) and the ReCap® Total Hip Resurfacing System (Biomet, Inc., Warsaw, IN).

### Summary

Evidence in the published peer-reviewed scientific literature indicates that partial hip resurfacing arthroplasty (HRA) is a safe and effective procedure for the treatment of osteonecrosis that is unresponsive to nonsurgical treatment. Evidence also supports the safety and effectiveness of total HRA for an individual, age less than 65 years, with a diagnosis of noninflammatory arthritis including osteoarthritis or osteonecrosis (i.e., avascular necrosis, aseptic necrosis, ischemic necrosis), traumatic arthritis or inflammatory arthritis (e.g., rheumatoid arthritis, psoriatic arthritis) who has failed nonsurgical management, and is a candidate for a total hip replacement.

## Coding/Billing Information

**Note:** This list of codes may not be all-inclusive.

### Partial Hip Resurfacing Arthroplasty

**Covered when medically necessary:**

| CPT®* Codes | Description  |
|-------------|--|
| 27125       | Hemiarthroplasty, hip, partial (eg, femoral stem prosthesis, bipolar arthroplasty) |
| 27299       | Unlisted procedure, pelvis or hip joint  |

| ICD-9-CM Diagnosis Codes | Description                                |
|--------------------------|--|
| 733.40                   | Aseptic necrosis of bone, site unspecified |
| 733.42                   | Aseptic necrosis of head and neck of femur |

### Total Hip Resurfacing Arthroplasty

**Covered when medically necessary:**

| CPT®* Codes | Description   |
|-------------|---|
| 27130       | Arthroplasty, acetabular and proximal femoral prosthetic replacement (total hip arthroplasty), with or without autograft or allograft |
| 27299       | Unlisted procedure, pelvis or hip joint   |

| HCPCS Codes | Description   |
|-------------|---|
| S2118       | Metal-on-metal total hip resurfacing, including acetabular and femoral components |

| ICD-9-CM Diagnosis Codes | Description  |
|--------------------------|--|
| 696.0                    | Psoriatic arthropathy  |
| 714.0                    | Rheumatoid arthritis   |
| 715.15                   | Osteoarthritis, localized, primary; pelvic region and thigh                                    |
| 715.25                   | Osteoarthritis, localized, secondary; pelvic region and thigh                                  |
| 715.35                   | Osteoarthritis, localized, not specified whether primary or secondary; pelvic region and thigh |
| 715.95                   | Osteoarthritis, unspecified whether generalized or localized; pelvic region and thigh          |
| 716.15                   | Traumatic arthropathy, pelvic region and thigh   |
| 716.95                   | Unspecified arthropathy, pelvic region and thigh   |
| 733.40                   | Aseptic necrosis of bone, site unspecified   |
| 733.42                   | Aseptic necrosis of head and neck of femur   |
| 733.49                   | Aseptic necrosis of bone, other  |
| V43.64                   | Organ or tissue replaced by other means, hip   |

\*Current Procedural Terminology (CPT®) © 2010 American Medical Association: Chicago, IL.

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## Policy History

| <b>Pre-Merger Organizations</b> | <b>Last Review Date</b> | <b>Policy Number</b> | <b>Title</b>                 |
|---------------------------------|-------------------------|----------------------|------------------------------|
| CIGNA HealthCare                | 4/15/2008               | 0460                 | Hip Resurfacing Arthroplasty |

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