

Policy Number	SUR705.032
Policy Effective Date	01/01/2026

Shoulder Resurfacing

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Related Policies (if applicable)
None

Disclaimer

Carefully check state regulations and/or the member contract.

Each benefit plan, summary plan description or contract defines which services are covered, which services are excluded, and which services are subject to dollar caps or other limitations, conditions or exclusions. Members and their providers have the responsibility for consulting the member's benefit plan, summary plan description or contract to determine if there are any exclusions or other benefit limitations applicable to this service or supply. **If there is a discrepancy between a Medical Policy and a member's benefit plan, summary plan description or contract, the benefit plan, summary plan description or contract will govern.**

Coverage

Shoulder resurfacing, including total, hemi, or partial resurfacing, **is considered experimental, investigational and/or unproven.**

Policy Guidelines

None.

Description

Resurfacing the shoulder joint is a method to treat painful shoulders without replacing the humeral head. Humeral resurfacing can be conducted together with or without resurfacing of the glenoid. This policy addresses partial or complete resurfacing of the humerus and resurfacing of both the humerus and glenoid.

Resurfacing of the humeral head can be accomplished with devices that provide either complete or partial coverage and may be performed alone (hemi-resurfacing) or in combination with glenoid resurfacing (total shoulder resurfacing, TSR). With TSR, the glenoid may be resurfaced with similar implants and procedures as are currently used for total shoulder arthroplasty. Biologic resurfacing of the glenoid with meniscal allograft or other biologic tissue has also been reported but is outside of the scope of the current policy.

The objective of resurfacing is to preserve the individual patient's normal head-neck anatomy and bone stock. Prostheses that are used to resurface the humeral head differ from those traditionally used in hemi- or total shoulder arthroplasty by using a small peg that is impact-fit through the humeral head/neck in place of a long stem inserted through the bone shaft. The prosthesis is implanted at the angle of the humeral neck instead of replacing the humeral head and neck. It has been proposed that in addition to reducing intraoperative blood loss and the occurrence of humeral periprosthetic fractures, resurfacing arthroplasty may avoid technical errors in version, head height, offset, and neck-shaft angle. It has also been proposed that resurfacing will improve revisions, since removal of stemmed implants are associated with tuberosity and shaft fractures that can lead to implant instability, proximal humerus bone loss, and poor shoulder function. In addition, the larger head size may lead to improved clinical outcomes. This policy therefore focuses on the impact of these design changes on clinical outcomes related to pain and function, as well as the long-term effects of resurfacing related to implant stability and durability in comparison with total shoulder or hemiarthroplasty.

Regulatory Status

Several prosthetic designs are currently available in the United States (U.S.).

Copeland Extended Articulating Surface (EAS)[™] Resurfacing Heads (Biomet Manufacturing) were cleared by the U.S. Food and Drug Administration (FDA) through the 510(k) process in 2005. They are indicated for "hemi- or total shoulder replacement in patients with massive, irreparable rotator cuff tears and arthritis. Specific indications include cuff tear arthropathy and difficult clinical management problems where other methods of treatment may not be suitable or may be inadequate." The glenoid component may be used for total shoulder resurfacing (both humerus and glenoid resurfaced) or total shoulder arthroplasty (humeral head replacement with glenoid resurfacing).

The DePuy Global CAP[™] CTA Resurfacing Shoulder Humeral Head (DePuy), cleared for marketing by the FDA in 2008, has the same indications as the Copeland[™] device and lists an earlier model of the DePuy Global CAP and the Copeland EAS[™] among predicate devices.

The Axiom Shoulder Resurfacing System (Axiom Orthopaedics) was cleared for marketing by the FDA in 2006 for use as a replacement of shoulder joints disabled by rheumatoid arthritis with pain; non-inflammatory degenerative joint disease (i.e., osteoarthritis and avascular necrosis); correction of functional deformity; fractures of the humeral head; and traumatic arthritis.

A partial resurfacing implant for the shoulder, known as the HemiCAP® (Arthrosurface), was cleared for marketing in 2003 under the name Contoured Articular Prosthetic (CAP) Humeral Head Resurfacing Prosthesis (STD Manufacturing).

In 2006, the Aequalis Resurfacing Head (Tornier) was cleared for marketing by the FDA. Joint replacement with this device is indicated to relieve severe pain or significant disability due to humeral head fracture or for degenerative pathologies such as osteoarthritis, rheumatoid arthritis, post-traumatic arthritis, and necrosis of the humeral head. (2)

This is not a complete listing of all devices available. Please refer to the FDA website for a complete listing of available devices.

Rationale

This policy is based on a review of relevant professional society guidelines.

Practice Guidelines and Position Statements

American Academy of Orthopedic Surgeons (AAOS)

In 2020 the American Academy of Orthopedic Surgeons published evidence-based clinical practice guidelines for the management of glenohumeral joint osteoarthritis. (1) The practice guidelines state that the strength of recommendation for support that clinicians may utilize stemmed, stemless, or resurfacing prosthesis for patients with glenohumeral joint osteoarthritis undergoing total or hemiarthroplasty is “Limited.” See Table 1 for descriptions of the strength of recommendations. The rationale for this recommendation includes 4 low quality studies.

Table 1. Strength of Recommendation Descriptions

Strength	Overall Strength of Evidence	Description of Evidence Quality	Strength Visual
Strong	Strong	Evidence from two or more “High” quality studies with consistent findings for recommending for or against the intervention.	★★★★
Moderate	Moderate	Evidence from two or more “Moderate” quality studies with consistent findings, or evidence from a single “High” quality study for recommending for or against the intervention.	★★★
Limited	Low or conflicting Evidence	Evidence from two or more “Low” quality studies with consistent findings or evidence from a single “Moderate” quality study recommending for against the intervention	★★

		or diagnostic or the evidence is insufficient or conflicting and does not allow a recommendation for or against the intervention.	
Consensus	No Evidence	There is no supporting evidence. In the absence of reliable evidence, the systematic literature review development group is making a recommendation based on their clinical opinion.	★

Coding

Procedure codes on Medical Policy documents are included **only** as a general reference tool for each policy. **They may not be all-inclusive.**

The presence or absence of procedure, service, supply, or device codes in a Medical Policy document has no relevance for determination of benefit coverage for members or reimbursement for providers. **Only the written coverage position in a Medical Policy should be used for such determinations.**

Benefit coverage determinations based on written Medical Policy coverage positions must include review of the member's benefit contract or Summary Plan Description (SPD) for defined coverage vs. non-coverage, benefit exclusions, and benefit limitations such as dollar or duration caps.

CPT Codes	23470, 23472, 23929
HCPCS Codes	None

*Current Procedural Terminology (CPT®) ©2024 American Medical Association: Chicago, IL.

References

1. American Academy of Orthopaedic Surgeons (AAOS). Management of Glenohumeral Joint Osteoarthritis Evidence-Based Clinical Practice Guideline. Published March 23, 2020. Available at: <<https://www.aaos.org>> (accessed December 18, 2025).
2. FDA 510(k) summary: Aequalis Resurfacing Head (K062661). Available at: <<https://www.accessdata.fda.gov>> (accessed December 16, 2025).

Centers for Medicare and Medicaid Services (CMS)

The information contained in this section is for informational purposes only. HCSC makes no representation as to the accuracy of this information. It is not to be used for claims adjudication for HCSC Plans.

The Centers for Medicare and Medicaid Services (CMS) does not have a national Medicare coverage position. Coverage may be subject to local carrier discretion.

A national coverage position for Medicare may have been changed since this medical policy document was written. See Medicare's National Coverage at <<https://www.cms.hhs.gov>>.

Policy History/Revision	
Date	Description of Change
01/01/2026	Document updated. Coverage unchanged. No new references added; others removed.
11/15/2024	Document updated with literature review. Coverage unchanged. No new references added.
07/15/2023	Reviewed. No changes.
01/01/2023	Document updated with literature review. Coverage unchanged. Reference 16 added; some updated and others removed.
04/01/2021	Reviewed. No changes.
05/01/2020	Document updated with literature review. Coverage unchanged. Reference 16 added.
11/15/2018	Reviewed. No changes.
01/15/2018	Document updated with literature review. Coverage unchanged.
07/01/2016	Reviewed. No changes.
02/01/2015	Document updated with literature review. Coverage unchanged.
09/15/2013	Document updated with literature review. Coverage unchanged.
05/15/2011	Document updated with literature review. Coverage unchanged.
11/15/2009	New policy with literature search through June 2009, coverage experimental, investigational and unproven.