

Revision Arthroplasty

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As a result of the Relative Value Scale Update Committee (RUC) Relativity Assessment Workgroup's (RAW) (formerly the Five-Year Review Identification Workgroup) analyses of codes, a need for additional codes to provide greater clarity for reporting the removal and replacement of an artificial implant was identified. Therefore, for the CPT 2013 code set, new codes were established to report the revision of total shoulder and elbow arthroplasties. This article provides an overview of the newly established codes and their intended applications.

Revision of Total Shoulder Arthroplasty (23473, 23474)

To provide a greater level of detail, two new codes were created to describe the revision of a total shoulder arthroplasty (codes 23473, 23474). The new codes include the removal of an artificial prosthesis (ie, humeral and/or glenoid component[s]), and the replacement with a new prosthesis (artificial implant) in the same shoulder during the same surgical session. Previously, the removal component of the shoulder revision procedure was reflected in codes 23331 and 23332, and was separately reported.

An exclusionary note has been added following codes 23331, 23332, 23473 and 23474 to indicate that codes 23331 and 23332 should not be reported with codes 23473 and 23474, because the removal of the prosthesis is included in codes 23473 and 23474. The term 'revision' in the descriptors of the new codes refers to the removal of a prosthesis and the replacement with a new prosthesis at the same time.

● 23473

Revision of total shoulder arthroplasty, including allograft when performed; humeral or glenoid component

● 23474

humeral and glenoid component

▶(Do not report 23473, 23474 in conjunction with 23331, 23332 if a prosthesis [ie, humeral and/or glenoid component(s)] is being removed and replaced in the same shoulder)◀

Coding Tip

A 75-year-old female who had a total shoulder arthroplasty 17 years ago, now has pain and limited motion with radiographic evidence of component loosening. She undergoes revision of the humeral component.

Clinical Example (23473)

Under anesthesia, a deltopectoral incision is made from the mid-clavicle to the junction to the mid-third of the humerus. The deltopectoral interval is opened allowing identification of the conjoined tendon. Careful protection around neurovascular structures during the case, including the axillary and musculocutaneous nerve, is imperative. The subscapularis tendon is divided, tagged, and mobilized. A wide capsular release is performed for exposure and mobilization of the proximal humerus. Dislocation of the shoulder components is performed with intraoperative inspection and assessment of the humeral component. Extensive scar tissue is excised. Extraction instruments are used to remove the loose humeral component and loose glenoid component. Meticulous preparation and cleaning of the humeral canal, including removal of the fibrous membrane and all of the cement, is performed. The wound is irrigated with liters of antibiotic fluid. Cementing or a press-fit with or without a bone graft of the humeral component within the humeral shaft is performed. Judgment and technical skill are necessary to carefully align the humeral component in the proper height and degree of retroversion to prevent postoperative subluxation or dislocation. Reattachment of the subscapularis tendon is accomplished, followed by a reapproximation of the deltopectoral interval and closure of the subcutaneous tissue and skin.

Coding Tip

A 75-year-old female who had a total shoulder arthroplasty 17 years ago, now has pain and limited motion with radiographic evidence of component loosening. She undergoes revision of the humeral component.

Clinical Example (23474)

Under anesthesia, a deltopectoral incision is made from the mid-clavicle to the junction to the mid-third of the humerus. The deltopectoral interval is opened allowing identification of the conjoined tendon. Careful protection around neurovascular structures during the case, including the axillary and musculocutaneous nerve, is imperative. The subscapularis

tendon is divided, tagged, and mobilized. A wide capsular release is performed for exposure and mobilization of the proximal humerus. Dislocation of the shoulder components is performed with intraoperative inspection and assessment of the humeral and glenoid components. Extensive scar tissue is excised. Extraction instruments are used to remove the loose humeral component and loose glenoid component. Meticulous preparation and cleaning of the humeral canal, including removal of the fibrous membrane and all of the cement, is performed. Meticulous preparation and cleaning of the glenoid, including removal of the fibrous membrane and all of the cement, is performed. The wound is irrigated with liters of antibiotic fluid. The glenoid fossa is carefully prepared to accept a properly aligned glenoid component, with or without a bone graft. This component is fixed in place with cement or screws. Judgment and technical skill are necessary to carefully align the glenoid component in the proper position and version to prevent postoperative subluxation or dislocation. Cementing or a press-fit with or without a bone graft of the humeral component within the humeral shaft is performed. Judgment and technical skill are necessary to carefully align the humeral component in the proper height and degree of retroversion to prevent postoperative subluxation or dislocation. Reattachment of the subscapularis tendon is accomplished, followed by a reapproximation of the deltopectoral interval and closure of the subcutaneous tissue and skin.

Revision of Total Elbow Arthroplasty (24370, 24371)

Two new codes were created to describe the revision of a total elbow arthroplasty (24370, 24371). These codes include the removal of an artificial prosthesis (ie, humeral and/or ulnar component[s]) and the replacement with a new prosthesis (artificial implant) in the same elbow. Previously, the removal component of the elbow revision procedure (24363) was separately reported with code 24160, but codes 24363 and 24160 were not recognized when reported together and payment denials occurred.

The term 'revision' in the descriptors of the new codes refers to the removal of a prosthesis and the replacement with a new prosthesis at the same time. A series of instructional parenthetical notes were added to prohibit the use of code 24160 in conjunction with code 24370 or code 24371, and to reference the new revision of elbow codes following the total elbow arthroplasty code 24363.

● 24370

Revision of total elbow arthroplasty, including allograft when performed; humeral or ulnar component

● 24371

humeral and ulnar component

▶(Do not report 24370, 24371 in conjunction with 24160 if a prosthesis [ie, humeral and/or ulnar component(s)] is being removed and replaced in the same elbow)◀

Clinical Example (24370)

A 68-year-old female who had a total elbow arthroplasty 15 years ago, now has pain and limited motion with ra-dio- graphic evidence of component loosening. She undergoes revision of the humeral component.

Description of Procedure (24370)

Under anesthesia, a posterior elbow incision is made. The ulnar nerve is identified for protection throughout the dissection. The triceps and extensor mechanism are released from their insertion on the ulna and then displaced in a radial direction. The elbow joint is exposed, scar tissue is excised, and contractures are released from the humerus for exposure and soft tissue balancing. Extraction instruments are used to remove the loose humeral component. Meticulous preparation and cleansing of the humeral canal, including fibrous membrane and cement removal, is necessary prior to the placement of the prosthetic humeral component. A burr and saw along with cutting guides are used to cut the proximal ulna or the distal humerus as necessary. After a trial component is inserted in a correct position, the final component is inserted using cement to complete the procedure. Judgment and technical skill are necessary to carefully align the component with the proper degree of rotation. The tourni-quet is released, hemostasis is obtained, the collateral ligaments are repaired, and the triceps tendon/extensor mechanism is reapproximated to the proximal ulna. The subcutaneous tissue is approximated, and the skin is closed.

Clinical Example (24371)

A 68-year-old female who had a total elbow arthroplasty 15 years ago, now has pain and limited motion with radiographic evidence of component loosening. She undergoes revision of both the humeral and ulnar components.

Description of Procedure (24371)

Under anesthesia, a posterior elbow incision is made. The ulnar nerve is identified for protection throughout the dissection. The triceps and extensor mechanism are released from their insertion on the ulna and then displaced in a radial direction. The elbow joint is exposed, scar tissue is excised, and contractures are released from the humerus and ulna for exposure and soft tissue balancing. Extraction instruments are used to remove the loose humeral and ulnar components, along with all of the fibrous membrane and cement. The proximal ulna is carefully prepared to accept a properly aligned ulnar component, with or without a bone graft. Meticulous preparation and cleansing of the humeral canal, including cement removal, is necessary prior to the placement of the prosthetic humeral component. A burr and saw along with cutting guides are used to cut the proximal ulna and the distal humerus as necessary. After trial components are inserted in a correct position, the final components are inserted using cement to complete the procedure. Judgment and technical

skill are necessary to carefully align the components with the proper degree of rotation. The tourniquet is released, hemostasis is obtained, the collateral ligaments are repaired, and the triceps tendon/extensor mechanism is reapproximated to the proximal ulna. The subcutaneous tissue is approximated, and the skin is closed.

Frequently Asked Questions

Question: Can we separately report an implant removal with a total shoulder or total elbow arthroplasty when a revision procedure is performed?

Answer: No, it would not be appropriate to report an implant removal with a total elbow or total shoulder arthroplasty when a revision procedure is performed. Revision is defined as removing one prosthesis and replacing it with another prosthesis during the same operative episode at the same setting and through the same incision. ♦