

## **Patient Perceived “Quality of Life” Impact Following Total Shoulder Arthroplasty**

Michaud EJ, Umeda Y, Seitz WH Jr.: Cleveland Clinic, Cleveland, Ohio, USA

**Background:** Total shoulder arthroplasty has a positive impact on the quality of life with patients with arthritic shoulders. The degree of impact may vary based on the underlying clinical pathology/resultant required forms of specific reconstruction.

**Purpose:** Clarify differences in “quality of life” measures, based on etiology and implants used, with shoulder arthroplasties.

**Design and Setting:** A prospective self-evaluation questionnaire was administered to all patients undergoing total shoulder arthroplasty. The questionnaire represented a self-assessment by the patient on a 10-point scale (from -5 to +5 with starting point being zero) of their total shoulder arthroplasty on everyday activities, ability to be self-sufficient, interacting with family, friends, and peers, ability to perform chores, work, and hobby/leisure activities. Patients were also asked why they underwent surgery, if they felt they benefited from it, and if the resultant functionality would lead them to go through the procedure again.

**Patients:** 146 patients with 161 shoulders were prospectively followed over a 2-7 year period with average follow-up of 26 months post-operative. Mean age at the time of surgery was 67 years.

**Methods:** Patients were seen at regular intervals and their self-assessment scores were tabulated at 6-weeks, 3-months, 6-months, 12 months, and yearly thereafter.

**Results:** Patients reported a positive impact in all categories by 3-months post-operatively. They demonstrated continued improvement in all categories to 9-months. By one year, they had plateaued with evidence of persistence at that level from 2-7 years. Patients who underwent standard total shoulder arthroplasty did the best (rheumatoids surprisingly rating their improvement higher than osteoarthritic patients, +4.5 versus +4.2). Patients with cuff-tear arthropathy rated their improvement in the +3.5 range (reverse shoulder arthroplasty +3.7, cup hemiarthroplasty +3.2). Patients undergoing revision total shoulder arthroplasty, regardless of type, rated the lowest positive endpoint (+2.7). Overall, patients undergoing standard total shoulder arthroplasty strongly agreed that they significantly benefited from their procedure. By etiology, 96% of osteoarthritic patients reported that they were very satisfied or satisfied with their outcomes, 93% of rheumatoid patients reported this, 78% of cuff-tear arthropathy patients and 69% of patients undergoing revision surgery. Despite these numbers, 96% of osteoarthritic patients, 93% of rheumatoid patients, 92% of revision patients, and 83% of cuff-tear arthropathy patients stated that they would go through their surgery again to reach their current level of outcome.

**Conclusions:** Patients with all forms of arthritic degeneration of the shoulder felt they benefited from total shoulder arthroplasty. Those having undergone conventional arthroplasty (both osteo and rheumatoid patients) felt they benefited more than those who had undergone reverse total shoulder arthroplasty or cup arthroplasty with fascial resurfacing. The smallest impacts in perceived personal/social improvements were found in the areas of hobby/leisure, daily chores and work, predominantly in those patients with cuff-tear arthropathy. This data supports the benefit of shoulder arthroplasty to enhance the quality of life despite residual limitations.

**Clinical Relevance:** The information derived here can be helpful in advising patients in setting realistic expectations for outcome after surgery.