

## **Long Term Outcomes following Non-Operative Management of Rotator Cuff Tears**

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**Purpose:** To examine the long term outcomes of patients treated non-operatively for the management of a rotator cuff tear (RCT).

**Number of Subjects:** Seventy-one patients with an MRI documented RCT who were treated at our facility were identified and their records were examined.

**Methods/Materials:** Following Institutional Review Board approval, patients with rotator cuff tears treated at our facility were identified and their records were examined. To be considered for the study, patients needed to have an MRI documented rotator cuff tear and had completed the Penn Shoulder Score (PSS) and American Shoulder and Elbow Surgeons (ASES) shoulder questionnaires at their initial visit to physical therapy. We attempted to contact these RCT patients via phone. Patients who were contacted gave their consent to complete the PSS and ASES questionnaires. The average time from the initial completion of PSS and ASES questionnaires to verbal phone follow-ups of these questionnaires was 43.2 months, with a range of 3 to 121 months since initial completion. The average number of clinic treatment visits was 7, with a range of 1 to 19 visits.

**Results:** Thirty-nine patients were contacted, gave their verbal informed consent, and completed the PSS and ASES over the phone. Among the remaining 32 patients, 2 patients had a rotator cuff repair since their discharge from physical therapy, one patient had a cerebral vascular accident affecting the injured side, one had a total shoulder arthroplasty, one patient was deceased, nine patients refused to participate, and eighteen could not be contacted. The average initial PSS score was 48.53 and the average follow-up score was 78.09, which is an average change of 29.56. The average initial score ASES score was 52.72, the average follow-up score was 76.12, which is an average change of 23.40. **Conclusion:** Non-operative management of rotator cuff tears results in long term improvements of function and reduction of pain as indicated by patient responses to PSS and ASES questionnaires. The minimal detectable change for PSS score is 12 points, and the minimal detectable change for ASES score is 10 points; and our patients, on average, were able to successfully maintain a two-fold change higher than the minimal detectable change for both PSS and ASES.

**Conclusions :** Non-operative management of rotator cuff tears results in long term and

sustained improvements of function and reduction of pain as indicated by patient responses to PSS and ASES questionnaires. Thirty-nine patients were able to sustain good functional results following physical therapy for a rotator cuff tear. Only two patients who were contacted went on to a rotator cuff repair.

**Clinical Relevance :** Physical therapy clinicians can use this information when educating their patients on the efficacy of non-operative management of rotator cuff tears, as well as in determine their prognosis for patients with rotator cuff tears.