

Failed Rotator Cuff Repair: Advance or Retreat?

Physical Therapy in San Jose, Los Gatos, Foster City and Burlingame for Shoulder

Are you contemplating whether you should have surgery repeated for a rotator cuff tear? This article reviews the outcome of repeated surgery for rotator cuff tears. The effectiveness of the surgery seems to be more favourable if the injury is to a single tendon, as opposed to multiple tendons.

If you've had a rotator cuff tear repaired but it didn't heal and/or it tore again, should you go for a second (revision) surgery to repair the recurrent tear? This is one of the few reports on the results of those patients who do go ahead and have the second procedure. Does the tendon heal after the second operation? What are the results in terms of pain, shoulder function, and motion? Let's find out.

In this study 21 patients with failed rotator cuff surgery (either because of failure of tendon healing or due to a re-tear of the previously repaired tendon) had a second operation to try and correct the problem. No one rushed into the second surgery. They all tried at least six-months of rehab after the first repair. But persistent pain and loss of motion and function sent them back to the surgeon for help.

But what's best? Learn to live with the limitations? Keep trying rehab? Or have another operation that may or may not work? Having some idea of how others have fared after a second surgical attempt might help surgeons know how to advise their patients in this type of situation.

There was nothing special or unusual about the patients who had the revision surgery. They included men and women ranging from 47 to 73 years old. Slightly more than half had the injury on their dominant side. Most were treated the first time somewhere else and were now being sent to the Shoulder and Elbow Department of Orthopaedic Surgery at Washington University in St. Louis.

Because this is a teaching hospital involved in research, patients were assessed, tested, and questioned thoroughly to gather baseline information before treatment. They were retested after surgery to evaluate before and after results. Ultrasound imaging was done a year after the revision surgery to take a look at the healing tendon.

The exact revision surgery varied from patient-to-patient depending on what the surgeon found when looking inside the shoulder. And there was a wide range of problems present: biceps tendons torn fully and retracted too far to repair, cartilage holes and tears, complete tears of one or more tendons, degenerative changes in other tendons, irregular bone edges. Everything was carefully repaired or reconstructed and the patients all went back to rehab once again.

Rehab was a slow, but steady process supervised by a Physical Therapist in consultation with the surgeon. After six weeks in a sling and pillow to hold the arm in slight abduction (away from the side), the therapist moved the shoulder joint through its motions passively (without the patient's assistance). Patients weren't allowed to help move the arm for a full 12 weeks after surgery. By the end of four months, they could start a strengthening program. The therapist helped each patient prepare to return to work and created a rehab program that would enable them to meet individual work demands.

And the results? Well, almost everyone did get pain relief and improved motion and function. Most of the patients improved enough to be able to return to work, play a sport if so desired, and resume daily activities. But less than half (48 per cent) had an intact repair as seen on ultrasound. Five of the 21 patients (about 25 per cent of the group) considered themselves disabled. With ongoing pain, they just weren't able to even do their daily activities.

The surgeons found that single-tendon repairs were more likely to be successful than multiple-tendon repairs. In fact, statistical analysis showed that 70 per cent of the single-tendon repairs were in good shape. Only 27 per cent of the multiple tendon repairs made it. Intact tendons did improve shoulder strength. The older the patient, the greater the chance of a poor outcome.

And in the end, even for those whose revision surgery wasn't completely successful, the patients were better off than before surgery with less pain and more function. Would the surgeons recommend revision surgery in all cases? Maybe not -- patients with multiple tears should be advised that surgery might improve their pain more than their function.

Older adults with multiple tears may not have the full result desired. With massive tears of more than one tendon, surgeons may advise this group that the damage cannot be repaired. For those who do have a revision operation, a slow but steady progression in rehab may be best. Giving the repaired tendon(s) time to heal before stressing them may yield better results than a more aggressive program.

Reference: Jay D. Keener, MD, et al. Revision Arthroscopic Rotator Cuff Repair: Repair Integrity and Clinical Outcome. In *The Journal of Bone and Joint Surgery*. March 2010. Vol. 92-A. No. 3. Pp. 590-599.