For the Most Common Shoulder Problems, 
Delay in Surgical Evaluation May Make the Situation Worse. 

Some patients with shoulder disorders have been encouraged to 'live with it' as long as possible and avoid surgical treatment because of a perceived unreliability of surgery. Years ago, this may have been good advice for certain diagnoses - but for the majority of shoulder disorders we are now able to reproducibly provide substantive improvement for our patients with surgery. In fact, prolonged non-surgical treatment for some of the most common shoulder problems (rotator cuff tears and osteoarthritis) can allow a correctible shoulder problem to become harder to repair, or possibly go beyond repairability.

Rotator cuff repair surgery is now accomplished as an all-arthroscopic procedure. Arthroscopic techniques, combined with advances in regional anesthesia have transformed rotator cuff repair into an outpatient procedure in the majority of cases. Arthroscopic rotator cuff repair can provide 94% satisfactory results for patients in the hands of an experienced arthroscopist

However, when treated non-surgically, rotator cuff tears do not heal on their own, the muscles can become atrophic, become infiltrated with fat, and the tear size frequently become larger with time. Additionally, neglect or continued injections as treatment for a rotator cuff tear can allow tears to progress and retract far away from the attachment on the humerus - so far, that a once repairable tendon can become irreparable (figure 1). It has been suggested in a recent study that even with repair, the fatty infiltration and atrophic changes may be an irreversible problem. Anecdotally, many patients will report frequently that injections into a shoulder with a rotator cuff tear can result in significant temporary relief of pain - but it is important that we educate our patients that this may make repairs harder if not impossible down the line. Recovery from rotator cuff surgery takes 3-4 months typically and patients can frequently return to golf and tennis by 6 months post-operatively.
Figure 1. Progression of a simple, non-retracted tear to a potentially non-repairable retracted, atrophic tear over time.

Osteoarthritis and other degenerative conditions of the shoulder joint have been treated with replacement arthroplasty in the United States for over half a century. Total shoulder replacement (replacing both the glenoid and the humeral sides of the shoulder) provides more reliable pain relief and functional results than partial shoulder replacement. Total shoulder replacement requires a good quality rotator cuff for the best results. The procedure is at this time an inpatient operation with typically a 2 night stay in the hospital. Most patients go home, do not require transfusions and have dramatic improvement in quality of life. Good to excellent results can be achieved 95% of the time with a well executed total shoulder replacement. Prolonged treatment with injections, or neglect of a known arthritic shoulder can result in progressive loss of glenoid bone and can significantly impact the ability of the shoulder surgeon to resurface the glenoid. (figure 2) If a patient has shoulder arthritis and experiences substantial quality of life alteration as a result, early surgical evaluation may allow for a more predictable, longer lasting solution and avoid further glenoid erosion. Many Orthopedic surgeons do not perform total shoulder arthroplasty, so it may be worthwhile to ask prior to referring a patient for suspected arthritis of the shoulder.
Figure 2. Progression of simple glenoid arthrosis to severe glenoid bone loss over time, complicating surgical reconstruction.

Reverse total shoulder arthroplasty is a special type of shoulder replacement designed for arthritis with massive rotator cuff deficiency. The subgroup of patients that this procedure works well in would do poorly with a standard total shoulder replacement. A reverse total shoulder replaces the glenoid with a sphere and the humeral head with a socket - essentially 'reversing' the mechanics of the joint (figure 3). An intact deltoid muscle is the most important preoperative criteria for a patient considering reverse arthroplasty. The patients who are candidates for this procedure are typically the most disabled group preoperatively and the operation can result in dramatic improvements in motion and pain. The procedure was approved for use in the USA in 2004 and has had dramatic clinical results. Up to 96% of patients have reported satisfactory results from the reverse shoulder replacement. Reverse shoulder replacement is probably the most dramatic innovation in shoulder reconstruction in the last quarter century.
The combination of surgical technique advancement and the availability of post-residency fellowships has resulted in the proliferation of highly trained shoulder specialists into larger communities in the United States. This has brought the most advanced techniques for reconstruction, usually reserved for University level programs to our local areas. As in other areas of medicine, repetition and practice focus can result in more reliable results with fewer complications. Shoulder reconstruction, when needed, can be an effective option for your patients. Early referral to a shoulder reconstruction specialist, rather than exhaustion of non-surgical methods prior to referral may have a significant impact on patient outcomes.
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Citations:


