

Information to Patients Regarding Shoulder Replacement

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Re: Information to Patients Regarding Shoulder Replacement.

Note: Arthritis of the shoulder, be it rheumatoid or osteoarthritis (wear and tear), is not a particularly common condition and pain in and around the shoulder is not always caused from arthritis, in fact, is much more commonly caused by tendonopathies occurring in the shoulder. This being the case, however, arthritis of the shoulder does occur and shoulder replacements are regularly undertaken by Mr Nimon.

These procedures are good procedures for relief of pain and the results tend to be very successful. However, it is not as simple a procedure as a hip or knee replacement and the long-term results are not quite as good as well. When arthritis does occur in a shoulder, the shoulder replacement, be it a half replacement called a hemi or total shoulder replacement, can readily give improvement in symptoms which will improve patient's quality of life. What determines whether a whole replacement or half replacement is undertaken is based upon the diagnosis, i.e. has the bone died off on its own or is there a tendon tear around the shoulders that lead to arthritis in which case a half replacement is done or is there rheumatoid arthritis or osteoarthritis which is more likely to require total shoulder replacement.

The shoulder is a much more unstable joint than the hip and knee and consequently relies on good soft tissue balance and implant positioning. When the cuff is torn, the shoulder tends to jump or translates more in the cup and consequently a full shoulder replacement lying on plastic in the cup, can cause it to wear more quickly and becomes loose and will wear out quickly. Consequently, a total shoulder replacement is not done in this situation. Another situation where half shoulder replacement is done is a fracture (broken shoulder). The results of fractures not generally as good because the attachments of the muscles to the bones have been broken off and never heal perfectly even with surgery.

Consequently, Shoulder replacements are not always done for the same reason and consequently the results vary.

Despite this, however, in general, elective surgery for non-fracture situations leads to 90% successful results with expectation of approximately 10-years before a second procedure or revision may need to be undertaken. Surgery involves a large incision over the front of the shoulder in an oblique fashion separating the muscles and lifting off the (subscapularis) muscle of the anterior aspect of the shoulder, into the shoulder joint. The ball of the shoulder is cut, known as the humeral head, and the proximal shoulder is reamed out or cored out to accept a stem and a new ball. The cup is then, if needed to be replaced, is smoothed off, and drilled to accept an implant known as a glenoid component. We then repair the subscapularis back to the stem and place the patient in a sling allowing no external rotation or moving (moving the arm out to the side for a period of three to four weeks).

After this the patient is gradually weaned from the sling, increasing range of motion as required such that at six weeks full motion is allowed. In a fracture situation, because of the importance of trying to get the bits of bone with tendon attached to them to heal to other pieces of bone, the patient is strapped to the side for six weeks and only very gentle pendular exercises are performed on the shoulder although the physio will show the patient how to take the elbow and wrist out of the sling to do wrist and elbow motion to prevent stiffness in these joints.

As with any surgical intervention, complications can occur. These involve the general risk of an anaesthetic, but in particular, the particular risk for the surgery. First of all, despite the best efforts to undertake a total shoulder replacement because of difficulties undertaken and the quality of the bone stock found in surgery, sometimes patients have to be prepared to accept only a hemiarthroplasty. Whilst Mr Nimon prefers a total shoulder replacement if there are concerns about the stability or the ability to

implant the glenoid components in, a hemiarthroplasty may be accepted. The difficulty with any hemiarthroplasty is the risk of further glenoid erosion in years to come. The metal balls setting into a normal shoulder socket can wear away the socket and lead to erosion as a cause of pain and this would be seen as a patient who does well in the short term but come five to ten years, develops pain which requires a revision and insertion of a glenoid component. This does not always occur but is a disadvantage of a hemiarthroplasty. The disadvantage of a total shoulder replacement is the glenoid component. Despite well insertion of the glenoid into the cup, the quality of fixation is nowhere near as good as the ball and consequently the glenoid component is one of the first components to become loose and play up in the total shoulder replacements and this can be a cause of early failure. Consequently, great care is taken to cementing the components in, because of individual patient factors this can sometimes still lead to complications. Other factors that can cause problems are infection. Infection is rare in a total shoulder replacement, but does occur in 1 in 50 cases of all arthroplasty and consequently must be taken into account. Should an arthroplasty infection occur, the shoulder may need to be opened up, washed out and patient placed on six months of antibiotics. If this is caught early enough, this could lead to a cure, however, occasionally the implant needs to be removed for a period of time before a new implant is inserted.

The surgery does involve procedures near close to major nerves and arteries. Much care is taken to prevent any injury to such areas and the incidence of this is very low, however, should it occur it could lead to weakness, numbness or a large amount of blood loss requiring blood transfusion. Once again, this incidence is low, but if nerve damage should occur then usually recovers, however, it is not guaranteed.

Finally, all joint replacements have incidence of dislocation, and shoulder replacement is not without risk. If a shoulder replacement dislocates and may need further surgery to re-tighten up tissues or even replace the tissues but even this does not guarantee against

further dislocations. The incidence is very rare. Mr Nimon takes great care to avoid this happening, however, there are multiple factors that occur, one is the patient factors and tissue status and consequently this cannot be guaranteed against.

Final comment regarding shoulder replacement is that surgery is performed for pain relief. Usually by freeing up the joint and giving pain relief, range of motion improves but it certainly does not recover to full and one cannot expect perfect recovery of range of motion. This is particularly prevalent when a hemiarthroplasty is undertaken for cup or tendon tear, in which case whilst the range of motion may improve slightly Mr Nimon does not expect the range of motion to be significantly improved. In general, however, patients, no matter what situation they undergo a shoulder replacement for, are generally very happy with the success and we can expect many years of symptom improvement to improve quality of life.