**Proximal Humerus Open Reduction and Internal fixation**

Patient and Physiotherapist information

**Procedure details:** The Proximal humerus is often injured in a bimodal distribution. The younger patients, children, the growth plate often is involved with the injury. These can remodel depending on the age, angulation, proximity to the growth plate and involved structures. In the adult, the fractures often are young people with high energy injuries, such as mountain bike accidents or industrial accidents and the patient in their 50-80’s. occasionally the proximal humerus fracture will only affect one aspect of the humerus, the Greater tuberosity. The goals are to restore function and prevent arthritis in the younger population. For children the aim of restoration of normal joint mechanics is ideal.

**Goals of treatment:** The aim of the treatment is restore normal anatomy and allow return to function. Initially the goals are for pain and swelling management, whilst allowing the hand, wrist and elbow to move. Often Dr Drynan is happy for scapulothoracic movement to start immediately post operatively, and will advise if this not to happen. After the initial recovery graded return to range of motion and function, whilst protecting the repaired bones and tendons and preventing significant stiffness in the shoulder.

**Rehabilitation phases:**

This can be used with Dr Drynan’s Shoulder rehabilitation document and videos, accessed via [www.drdaviddrynan.com.au](http://www.drdaviddrynan.com.au) or Youtube – Dr Drynan Orthopaedics or Link:

**Phase**

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| **Phase** | **Time (Weeks)** | **Restrictions** | **Exercises** |
| 1 | 0-2 | Sling use when not in shower or exercisesAvoid unsupported arm hanging – use contralateral hand to support.  | Scapular positioning, hand, wrist, elbow range of motion.Grip strengthening |
| 2 | 2-6 | Sling use, even for sleep.Off for shower, but leave arm by the side. | Scapular, hand, wrist, and elbow ROMpassive ROM, flex to 40 deg, abduct to 30deg, ER to 10-30 deg. Gradually obtaining this range over weeks 2-4. Increase to flexion of 60, abduction of 50 and ER 40deg by 6 weeks.Happy for pendular exercises from week 2/3 |
| 3 | 6-12 | No sling, but no resistance yet. | Full Active ROM – active assisted if requiredPassive stretches and end range ROM – slowly increase ER stretches as pain allows. Gradual movement to Abduction and external rotation 9-10 weeks. |
| 4 | 3-6 months | No resistance until XR confirms union or 4 months, happy for full normal ADLs prior from 3 months. | Aim for full active range of motion by 3 months.Gradual increase strengthening and resistance from 3-4 months.Passive stretches if failing to increase range.(Consideration of arthroscopic release at greater than 9 months post op, if failing to progress in adult population) |