



## **Reverse Total Shoulder Replacement**

### **What is a Reverse Total Shoulder Replacement?**

It is a type of shoulder replacement undertaken for patients who have developed arthritis in the shoulder joint due to large rotator cuff tear which is no longer repairable (cuff arthropathy). Patients with this kind of arthritis can suffer from significant loss of function of the affected shoulder and often are unable to lift their arm even to shoulder height. This inability to lift the arm to even shoulder height is called "pseudo-paralysis of the shoulder". Reverse shoulder replacement allows for restoration of overhead motion, alleviates pain and helps restore a functional shoulder.

### **What are the indications for a reverse shoulder replacement?**

Significant pain and disability can be associated with cuff arthropathy. Individuals often have difficulty with simple daily activities such as feeding themselves, getting dressed and combing their hair because of a significant loss of shoulder motion and strength. There is often associated pain, especially at night time which interferes with normal sleep. Pseudo-paralysis and cuff arthropathy can be seen in older patients with a degenerative massive rotator cuff tear. Other causes of cuff arthropathy include earlier failed rotator cuff repairs, or individuals with earlier failed shoulder replacement surgery. A reverse shoulder replacement can also be useful in the cases of severe fractures of the proximal humerus (shoulder joint) in older patients.

In patients with a massive rotator cuff tear, which is not repairable, an initial trial of physical therapy may help restore function to an acceptable level. If, however, significant functional loss and associated pain persist, despite a course of conservative therapy, reverse arthroplasty is often the only surgical option.

### **Why is it called a "Reverse" shoulder replacement?**

The position of the ball and socket is changed so that the ball is on the socket side of the joint and the socket is on the ball side (Figure 1).



The operation is carried out under general anaesthetic and a nerve block, mostly done through a strap incision on the front-side of the shoulder. The arm is then placed in a sling with body belt.

### **Post Op: Day 1**

Mastersling with body belt fitted in theatre, Cryo-cuff administered to reduce inflammation. Finger, wrist and radio-ulnar mobilising exercises. Active elbow flexion and extension started. Shoulder Girdle exercises and postural awareness.

### **Day 2 – 5 (Discharge)**

Body belt removed – the patient stays in sling. Axillary hygiene taught. Continue Cryo-cuff. Maintain exercises as above. Start GENTLE pendular swinging in forward leaning.

### **Week 1 – 3**

Start PASSIVE shoulder exercises – Flexion/extension, Int/external rotation (DO NOT FORCE any movement) as instructed by physiotherapist. Use of analgesia as required, regularly, to allow maximum comfort during all arm exercises and daily functions. Start Scapular setting exercises. Continue pendular exercises as above. Continue shoulder, elbow, wrist and hand exercises. Stay in sling except when exercising.

### **Week 3 – 6 - Clinic Review**

Start formal physiotherapy – to increase range of motion. Avoid forcing any movement. Do not push the shoulder into painful positions. Start the Deltoid Regime – see A4 booklet given to patients in hospital, under the instruction of physiotherapist. The patient should be weaned off from the sling as comfortable but should always wear sling when outdoors. Continue to stretch regularly throughout the day, where possible in lying, maintaining good range of movement in the elbow, wrist and hand. Slowly increase the daily use of the arm, but painful activities should be avoided.

### **Week 6 – 12**

Continue with physiotherapy, as instructed. Increase the Deltoid regime as described in the hospital booklet. Stop wearing the sling. Continue stretches maximising range of motion in all directions. Use the arm and hand as fully and normally as possible, in comfortable positions.

### **Week 12 - Clinic Review**

Continue stretches maximising range of motion in all directions. Continue with physiotherapy, as instructed. Increase the Deltoid regime as described in the hospital booklet. Use the arm and hand as fully and normally as possible, in comfortable positions.