



KEY A ACROMION D HUMERAL SHAFT E CORACOID F SCAPULA G GLENOID M CAPSULE N HUMERAL COMPONENT

Patient to be seen within 2 weeks of discharge from the Orthopaedic Unit at Macclesfield District General Hospital

OPERATION

Purpose

To replace the degenerative articular surface of the humeral head with a prosthetic implant. To decrease pain but not necessarily increase range of movement.

Case profile

Patients with humeral head fractures that are prone to developing or have developed avascular necrosis.

Implant

Humeral component - Metal shaft with a selection of different head sizes.

Incision

Deltopectoral incision.

Approach

Detach subscapularis.

Division of the coraco-acromial ligament improves the access.

Procedure

The rotator cuff interval is opened between subscapularis and supraspinatus to access the joint. The humeral articular surface is excised preserving the insertion of the attached rotator cuff into the greater tuberosity.

The humeral shaft components are usually inserted without the use of cement after appropriate reaming.

A humeral head component is selected according to the size which provides the correct soft tissue tension and is then impacted onto the reverse morse taper of the humeral shaft.

The subscapularis is re-attached with sutures to the lesser tuberosity and the rotator cuff interval repaired.

Possible associated procedures

Acromioplasty.

Main possible complications

Neurovascular. Humeral shaft fracture. Dissociation of implant components.

THERAPIST

In patient

- Patient instructed to wear polysling constantly for 2 weeks (dependent on post-operative instructions) only to be removed for exercises and washing and dressing
- Exercise programme begins post op:
 - i. Gentle pendular exercises
 - ii. External rotation exercises with a stick limited to neutral for 2 weeks to protect subscapularis
 - iii. Elbow wrist and hand exercises
- Must wear polysling when not exercising.

2 weeks

- Wean off polysling.
- Passive mobilisation with therapist
- Commence active assisted exercises and pulleys and progress to active within the limits of pain tolerance.
- Correct any abnormal movement pattern.
- Proprioceptive re-education.
- Continue exercise programme at home and introduce active assisted exercises.
- Scapula stabiliser programme.

3 weeks

Submaximal isometric rotator cuff exercise*

6 weeks

- Rotator cuff rehabilitation resisted exercise with theraband
- Strengthening of deltoid throughout the active ROM.
- Emphasise correct movement pattern in activities of daily living.

MILESTONES	
Week 3	50% of Pre-op level of active ROM maintained
Week 6	Passive ROM at least the pre- operative level
Week 12	Active ROM at least the pre- operative level

* Isometric contraction < 30% maximum voluntary contraction.