

Post-Operative Shoulder Rehabilitation

These multidisciplinary guidelines form the basis of a progressive rehabilitation programme. These are general guidelines for the most common shoulder surgical procedures and are not designed to replace sound clinical reasoning. Any specific instructions from the consultant orthopaedic team either verbally or in post-operative notes must take precedence.

Rehabilitation Goals

- Preserve the integrity of surgical repair
- Restoration of functional range of movement
- Restoration of Rotator Cuff (RC) and scapula control through range
- Restore proprioceptive acuity
- Prevent compensatory movement patterns that may compromise recovery

Principles of Post-operative shoulder rehabilitation

The following should be considered at all times throughout the rehabilitation process:

- Good communication with the consultant team is paramount to a successful outcome for the patient.
- Comprehensive pain control should be in place and supported prior to discharge from hospital. Patients should be educated regarding appropriate levels of pain, particularly in response to exercise to reduce fear and anxiety.
- Cervical spine, elbow, wrist and hand activity should be maintained throughout.
- Quality of movement should not be sacrificed in the pursuit of range.
- Progression should follow the basic principles of rehabilitation from passive (PROM), active assisted (AAROM), active (AROM), isometric and resistance training.
- Rehabilitation programmes should only include 2-4 exercises. Too many exercises will affect adherence.
- Consider using short lever movements or closed kinetic chain (CKC) positions in appropriate situations.
- Consider incorporating functional movements whenever possible – for example use of the hand for specific occupational or sports activities.
- Functional milestones are for guidance only. Patients should not be accelerated through time markers without discussion with a member of the consultant team. Similarly, range, control and strength goals must be met before patients are deemed ready for progression, regardless of whether or not they have reached the time marker.
- The law states that patients **MUST** be in full control of a car before returning to driving. It is the patient's responsibility to ensure this and to inform their insurance company of their surgery.

Criteria for progression

Criteria for progression of exercise should always be based on:

- Ability to perform a movement with the correct movement pattern
- The patient being able to maintain good rotator cuff and scapula control – there should be no evidence of significant scapula winging or humeral head translation.
- Evidence that movement can be performed without compensatory muscle patterning (particularly Pectoralis Major and Latissimus Dorsi)

Shoulder Arthroplasty – including Total Shoulder Replacement (TSR), Reverse Total Shoulder Replacement & Hemi-Arthroplasty

	Day 0	0-2 weeks	2-4 weeks	4-6 weeks	6-12 weeks	12weeks +
Advise	<p>Protection of Subscapularis is essential in the early phases of rehabilitation</p> <p>Sling/collar & cuff for 4/52 only to be removed for axillary hygiene and exercises</p> <p>Neck/elbow/wrist/hand movements</p> <p>Pendular exercises</p> <p>Patients may be encouraged to sleep with a pillow/towel under the arm to prevent the arm falling into an extended position</p>	Continued sling use and initial exercises	<p>Continued sling use</p> <p>Passive/supported flexion <90° e.g.:-</p> <ul style="list-style-type: none"> • Table slides • Walk backs <p>ER to neutral only (handshake position)</p>	<p>At 4/52 gradually wean out of sling during day but continue to wear at night until 6 weeks</p> <p>ER to neutral only (handshake position)</p> <p>Light activities at waist level only should be performed – as a guideline no more than the weight of a cup of tea within field of vision, using short lever positions</p>	<p>Progress supported flexion to AAROM progressing to AROM</p> <p>Consider:-</p> <ul style="list-style-type: none"> • Short lever movements • Supine position <p>Introduce ER up to 30°</p> <p>8/52 Gradual increase range of ER beyond 30°</p> <p>Gentle RC activity in neutral (sub maximal and avoiding IR)</p>	<p>Progress functional active range of movement</p> <p>Introduce gentle RC loading according to functional demands/ This may be affected by RC status. If RC function is poor, consider compensation exercise – e.g. principles of the Deltoid Rehabilitation Programme</p> <p>Progress to functional rehabilitation – consider weight of arm and starting position before functional weights and/or theraband is used</p>
Avoid	<p>AVOID:-</p> <ul style="list-style-type: none"> • ER beyond neutral • Extension/Hand behind back positions • Abduction/ER • Weight bearing through operated side (e.g. getting out of a chair /bed • Resisted IR • Long lever OKC exercises 			<p>AVOID:-</p> <ul style="list-style-type: none"> • Extension/Hand behind back • Abduction/ER • Weight bearing through operated side (e.g. getting out of a chair) • Resisted IR • Long lever OKC • 	<p>AVOID:-</p> <ul style="list-style-type: none"> • Forced ER including EOR mobilisation • Forced IR/HBB/Extension • Abduction/ER • Weight bearing through operated limb in a position of extension • Resisted IR 	

Key clinical points

- Protect subscapularis in the early stages
- Patients should be educated regarding realistic outcomes
- Rehabilitation should aim to restore function