

Bursal Acromial Reconstruction (BAR) Procedure

Indications:

- Cuff arthropathy in patients >75 years of age who does not wish to undergo shoulder arthroplasty

Protocol:

- Pre-operative rehabilitation is advisable

Post-op*		Rehab Goals
Day 1 – 3 weeks	<ul style="list-style-type: none"> ➤ Teach axillary hygiene ➤ Encourage cervical spine range of motion exercises ➤ Sling for UP TO 3 weeks (no more than 5 hours per day) ➤ Passive supported lateral rotation from day 1 ➤ Start supported active lateral rotation from week 2 ➤ Passive & active assisted elevation up to 60 degrees ➤ Gentle isometrics all planes (approx. 20% MVC) ➤ Teach postural & scapular awareness ➤ Core stability exercises as appropriate ➤ Proprioceptive exercises (minimal weight bearing/axial loading) ➤ Encourage contra-lateral arm and whole kinetic chain exercises as appropriate ➤ AVOID hand behind back & shrugging movements ➤ DO NOT FORCE STRETCHES ➤ ensure all exercises are pain free & monitor 24-hour VAS pain response 	<ul style="list-style-type: none"> ➤ To increase deltoid strength ➤ To avoid post-operative stiffness ➤ To maintaining graft integrity & avoid excessive shearing forces ➤ To gently compress the graft to promote bone to graft healing ➤ To re-educate learned ‘hitching’ movement patterns & promote activity in the humeral head depressors ➤ To maintain and improve strength & function of the contra-lateral limb ➤ To optimise shoulder efficiency by promoting early integration of the kinetic chain
3 – 6 weeks	<ul style="list-style-type: none"> ➤ Ensure patient is fully weaned off sling ➤ Add resistance to supported active lateral rotation ➤ Passive & active assisted elevation <i>beyond</i> 60 degrees (must be performed in uncompensated & comfortable ranges) ➤ Start active unsupported open chain exercises without resistance (must be performed in uncompensated & comfortable ranges) ➤ Initiate loading with the arm in neutral (e.g. Farmers walks, Suitcase walks etc) ➤ Progress isometric deltoid exercises to approx. 50% MVC and at varying uncompensated ranges 	<ul style="list-style-type: none"> ➤ As above plus... ➤ To increase confidence whilst using the arm under load ➤ To gradually increase pain free uncompensated active range of motion, including taking the hand behind the back ➤ To ensure >70% pre-operative range into lateral rotation

	<ul style="list-style-type: none"> ➤ DO NOT FORCE PASSIVE STRETCHES ➤ ensure all exercises are pain free & monitor 24-hour VAS pain response ➤ Start gentle hand behind back movements in contra-lateral side lying as pain allows 	
6 – 12 weeks	<ul style="list-style-type: none"> ➤ Start specific capsular/posterior joint stretching as able ➤ Add resistance to open chain exercises all planes (only for uncompensated ranges) ➤ Commence structured deltoid programme ➤ Promote lower and middle trapezius exercise regimes ➤ Increase proprioception through open and closed chain exercises ➤ Progress core stability training 	<ul style="list-style-type: none"> ➤ As above... ➤ To promote strength in the scapula retractors and downward rotators ➤ To regain functional range of motion, control and strength

***No longitudinal studies exist for this new procedure therefore this rehabilitation pathway has been informed using carefully applied clinical reasoning, knowledge of the procedure performed and observations of post-operative outcomes in this early patient cohort.**