## Plymouth

## **Posterior Shoulder Stabilisation Rehabilitation Protocol**

Phase	1. Protection & Education
Time Frame	0 to 6 weeks post procedure
Key Goals	<ul> <li>Protection of surgical repair</li> <li>Minimise shoulder pain &amp; inflammation</li> <li>Patient understanding of appropriate post-operative management and restrictions</li> <li>Range of Movement (ROM) goals: At 6 weeks post procedure restoration of a comfortable passive and active assisted range of movement, with the affected shoulder, equal to 90° of elevation (abduction/scaption).</li> </ul>
Avoid	<ul> <li>Any activity or exercise which require internal rotation, adduction or horizontal adduction beyond neutral with the affected shoulder</li> <li>Any forceful or painful activities involving the affected shoulder</li> <li>Active Range of Movement (AROM) exercises involving the affected shoulder</li> <li>Elevation of the shoulder above 90°</li> <li>Pendular swinging exercises during the first 6 weeks</li> </ul>
Interventions	<ul> <li>For the first 3 weeks post procedure the affected arm should remain in the sling/brace with the exception of hygiene and dressing. During this period.</li> <li>Introduce Active Range of Movement (AROM) exercises for elbow, wrist and hand of affected side</li> <li>Introduce AROM exercises for the neck</li> <li>At 3 weeks post procedure continue with exercises above and include:</li> <li>Passive/Active Assisted ROM (AAROM)exercises involving the affected side. Undertake elevation of the shoulder through scaption or abduction up to 90°. Undertake with the shoulder in a mid-range of rotation (Full Can position). Passive/active assisted external rotation within a comfortable range. Avoid internal rotation, horizontal adduction and adduction beyond neutral.</li> <li>Introduce sub-maximal isometric activity for the Rotator Cuff with the shoulder in a neutral position of rotation (0° of internal/external rotation). Educate patient to undertake isometric internal rotation without activity of pectoralis major and latissimus dorsi muscles.</li> <li>Introduce scapular setting exercises</li> </ul>
Notes	The patient may wean from the brace/sling at 6 weeks post procedure

Phase	2. Control through Range
Time Frame	From 6 weeks post procedure
Criteria to commence stage	<ul> <li>Minimal pain 0 – 3/10 on Numerical Pain Rating Scale (NPRS)</li> <li>ROM goals achieved for stage 1</li> </ul>
Key Goals	<ul> <li>ROM Goals: At 12 weeks post procedure the patient should aim to achieve a comfortable passive and active range of movement comparable to that of the unaffected side (within normal limits). With the exception of hand behind the back and horizontal adduction.</li> </ul>
Avoid	<ul> <li>Any forceful activity or stretching into flexion, horizontal adduction or internal rotation</li> <li>Any other painful stretching of the affected shoulder</li> <li>Any forceful or uncomfortable axial load through the affected upper limb.</li> </ul>
Interventions	<ul> <li>Continue with PROM/AAROM exercises include shoulder flexion, internal rotation and horizontal adduction through range as comfortable.</li> <li>Introduce Active Range of Movement (AROM) Exercises involving the affected shoulder including flexion, internal rotation and adduction/horizontal adduction through range as comfortable. Avoid placing hand behind back or combined internal rotation with elevation until 8 weeks post procedure.</li> <li>Commence an isotonic Rotator Cuff Strengthening programme. Strengthening should involve low resistance with high repetition. Educate the patient to avoid overactivity of the pectoralis major and latissimus dorsi muscles. Avoid strengthening with combined internal rotation in elevation until 8 weeks post procedure.</li> <li>Progress Scapular Recruitment exercises with emphasis on scapular retractors and upward rotators.</li> <li>Monitor and promote appropriate shoulder girdle mechanics during exercises and activities of daily living (ADLs)</li> <li>Commence Neuromuscular Retraining/Proprioceptive exercises for the shoulder. Do not allow closed chain weight bearing exercises until 8 weeks post procedure.</li> <li>Introduce Cervical and Thoracic Spine Mobility exercises</li> <li>Introduce Core Stability exercises if indicated (important for patients with generalised low tone) including postural awareness</li> </ul>

Phase	3. Strength & Endurance
Time Frame	From 12 weeks post procedure
Criteria to commence stage	<ul> <li>ROM goals set out in phase 2 have been achieved</li> <li>Strengthening and ROM exercises are being undertaken without pain</li> </ul>
Key Goals	<ul> <li>Restoration of ROM with the affected shoulder which enables the patient to undertake their usual daily activities without discomfort or limitation</li> <li>Prepare the patient for return to usual ADLs.</li> <li>Prepare patient to commence work, sport and recreational activity specific training</li> </ul>
Avoid	<ul> <li>Any painful exercises, activities or stretches</li> </ul>
Interventions	<ul> <li>Progress rotator cuff strengthening and endurance exercises with the shoulder through range into positions <u>including</u> <u>exercises with the shoulder in positions of internal rotation and</u> <u>horizontal adduction</u>.</li> <li>Undertake strengthening of the Posterior Deltoid.</li> <li>Progress neuromuscular control/proprioceptive exercises through range. Include weight bearing exercises on floor starting in 4-point kneeling. Progress as able to unstable surfaces/3-point kneeling.</li> <li>Introduce general strengthening for the affected upper limb. Where possible target muscle groups as required for work/sport or recreation.</li> <li>Undertake exercises that incorporate the kinetic chain and core control.</li> <li>Undertake stretching into flexion and external rotation where range is limited. Allow controlled restoration of internal rotation &amp; horizontal/cross body adduction through exercises and daily activities. <u>Avoid targeting posterior shoulder</u> stretches (internal rotation/adduction/horizontal adduction) unless a restriction in range is limiting necessary function.</li> </ul>

Phase	4. Return to Function/Sport
Time Frame	From 18 weeks post procedure
Criteria to commence stage Key Goals	<ul> <li>No pain at rest or with exercises</li> <li>No sensation of instability with exercises and activities</li> <li>A sufficient ROM, comparable to the unaffected side, without inappropriate shoulder girdle mechanics</li> <li>The patient must demonstrate confidence, control and endurance with shoulder through range including into an internally rotated and/or horizontally adducted shoulder position with the affected shoulder</li> <li>The patient must have rotator cuff strength comparable to the unaffected side upon testing internal and external rotation through range</li> <li>The patient must be comfortable and demonstrate confidence in weightbearing through the affected side in 4-point kneeling/press-up position</li> <li>Facilitate the patient's return to usual ADLs and recreational activities including sport</li> </ul>
Avoid	Any forceful or painful stretching of the posterior shoulder
Interventions	<ul> <li>Introduce functionally relevant and sports specific exercises/drills</li> <li>Patient may gradually return to non-contact sports and activities including throwing, swimming and overhead racquet program as required</li> <li>Plyometric exercises may be gradually introduced <u>only as necessary</u>. Perform no more than 3 times per week. Emphasis on quality not quantity</li> </ul>
Notes	• The patient must not return to contact/collision activities or sports for a minimum of 6 months post stabilisation.