

Reverse Polarity Shoulder Arthroplasty

Introduction

The reverse Shoulder replacement changes the orientation of the shoulder, changing the mechanics of the shoulder. The deltoid has an improved mechanical advantage to move the arm, enabling the artificial joint to function better by compensating for the torn rotator cuff.

The physiotherapy programme will need to be individualised for each patient, all exercises should be performed without pain.

Some restrictions are placed on internal rotation, as this movement allows the prosthesis to move anteriorly and inferiorly putting at risk of dislocation. The details of specific restrictions will be in the post-operative instructions, in particular whether or not a subscapularis repair has been performed and needs to be protected. If you have not received these please ring Sue Sollars on 01761 422259.

Emphasise to the patient the importance of protecting the shoulder to allow soft-tissue healing in the first two phases. The milestones may be used to assess whether you feel the patient is making good progress or not.

Shoulder rehabilitation is more than strength-training of the shoulder muscles alone. The (neuromuscular) rehabilitation addresses the whole shoulder girdle, upper extremity, core stability and training of the kinetic chain.

Phase 1 (day 1–21)

Goals

- > Maintain integrity of the prosthesis and soft-tissues
 - Sling at all times except while dressing/washing or doing exercises
 - Teach sling, dressing and personal hygiene techniques
- > Management of pain, inflammation and muscle inhibition
 - Analgesics, NSAID's, ice, sling, passive movement and posture
- > Teach shoulder girdle control/setting and relaxation
 - Retraction and depression
- > Shoulder pendulum, passive range of movement (PROM) for hygiene and dressing only
- > Hand, wrist, elbow and neck range of movement exercises (ROM)
- > Advice on sleeping position
 - Wearing sling, if supine use a pillow beneath the elbow to prevent the shoulder resting in extension
- > Once stitches have been removed begin scar massage

Precautions

- > Sling usually for 4–6 weeks (check post-operative note)
- > No combined abduction and external rotation
- > No lifting of objects
- > No excessive shoulder extension
- > No excessive stretching or sudden movements
- > No supporting of body weight by hands
- > No driving 6 weeks
- > Keep wounds clean and dry
- > Avoid active IR if subscapularis repair has been performed

Milestones

- > Pain, inflammation and muscle inhibition well managed
 - > Return to pre-operative sleep patterns
 - > Good scapula setting
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Phase 2 (weeks 4–8)

Goals

- > Allow healing of soft tissue – do not over-load healing tissue
- > Continue to manage and reduce pain, inflammation and muscle inhibition
 - As Phase 1
 - Alternate treatment strategies as appropriate e.g. soft tissue techniques, taping
- > Gradually progress PROM, AAROM and AROM as tolerated/not into pain/do not force or stretch
- > Re-establish dynamic shoulder stability
 - Good SHR through PROM, progressing to AAROM then AROM
- > Gradually progress isometrics, introducing internal rotation as tolerated/not into pain
- > Gradually introduce lower limb and core strengthening as required
- > Gradually return to light, non-repetitive functional activities

Precautions

- > Usually wean out of the sling after 4-6 weeks (check post-operative note)
- > No combined abduction and external rotation
- > No lifting of objects
- > No excessive shoulder extension
- > No excessive stretching or sudden movements
- > No supporting of body weight by hands
- > No driving (right 6 weeks, left 8 weeks)

Milestones at 8 weeks

- > Pain, inflammation and muscle inhibition well managed
- > AAROM flexion 90°, external rotation 30°
- > Good SHR with PROM

Phase 3 (9–12 weeks)

Goals

- > Maximise PROM
 - Introduce multi-directional stretching into end of range as tolerated/not into pain
- > Gradually restore AAROM and then AROM with good SHR as tolerated/not into pain
- > Gradually introduce and progress shoulder strengthening as tolerated/not into pain
 - Introduce cuff strengthening, progressing to maximal isometrics then to isotonic strengthening
 - Introduce scapular stabilisation exercises
 - Introduce proprioceptive exercises
 - Gradually progress to dynamic and rhythmic stabilisation exercises
- > Gradually progress lower limb and core strengthening as required
- > Gradually progress functional activities
- > Gradually introduce light, early-stage sport-specific exercises

Precautions

- > Avoid excessive loading of shoulder
 - No heavy lifting
 - No prolonged, repetitive upper limb activities

Milestones at 12 weeks

- > Resolved pain, inflammation and muscle inhibition
- > AROM with good SHR through elevation to 100% of pre-operative range
- > Passive external rotation to 100% of pre-operative range

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Phase 4 (3–6 months)

Goals

- > Maintain full PROM
 - Continue multi-directional stretching into end of range as tolerated/not into pain
- > Full pre-operative AROM with good SHR as tolerated/not into pain
- > Progress shoulder strengthening as tolerated/not into pain
 - Progress cuff strengthening and scapular stabilisation exercises
 - Progress proprioceptive exercises
 - Progress shoulder and upper limb strengthening ensuring good SHR
 - Progress dynamic and rhythmic stabilisation exercises
- > Progress biceps strengthening
- > Progress lower limb and core strengthening as required
- > Gradually progress sport-specific exercises

Precautions

- > Avoid excessive loading of shoulder
 - No heavy lifting away from body
 - No prolonged, repetitive overhead activities

Milestones at 6 months

- > Maximised pain-free motion and any remaining rotator cuff strength restored
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Phase 5 (6–12 months)

Goals

- > As phase 4
 - > Gradual return to strenuous work activities as required
 - > Gradual return to contact sports as required
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Contacts

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www.shoulderspecialists.co.uk