REVERSE TOTAL SHOULDER REPLACEMENT - PATIENT INFORMATION

OVERVIEW

The reverse total shoulder replacement is a treatment option for patients with the following conditions:

- 1. shoulder arthritis with irreparable rotator cuff damage
- 2. complex fractures
- 3. revision of a prior replacement where the rotator cuff muscles are deficient

This type of replacement reverses the orientation of the shoulder joint by replacing the cup of the shoulder (glenoid) with a ball, and replacing the humeral head with a concave cup. In doing so it alters the tension and strength of the deltoid muscle, allowing it to take over the role of the deficient rotator cuff muscles (to an extent).





Standard total shoulder replacement (left) and reverse TSR (right).

The main goals of your post-operative rehabilitation are:

- 1. **protect the joint to prevent dislocation:** need to avoid combined internal rotation (arm rotated in), adduction (arm across body) and extension (arm behind back) for 12 weeks this position is commonly employed when rising from a seated position
- 2. maintain and improve deltoid function: the motion and stability of your new joint is largely dependent on this muscle
- 3. restore a functional range of motion

REVERSE TOTAL SHOULDER POST-OP PHYSIOTHERAPY PROTOCOL

This protocol is designed as a guide to you and your physiotherapist. Your progression through the post surgical period is case dependent and may be altered and need to be modified according to your underlying medical issues, physical findings or the presence of post-operative complications. Please let me know if you or your physiotherapist have specific concerns regarding your ability to comply with the protocol.

The start of this protocol is delayed for 3-4 weeks following RTSA for a revision or in the presence of poor bone stock. I will let you know if this is the case.



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PHASE ONE

Immediate post-op to week $6 - \underline{GOALS}$:

- 1. wound healing and management of swelling: ice and anti-inflammatories
- 2. prevention of dislocation
- 3. maintain passive range of motion
- 4. maintain full finger, wrist and elbow range of motion
- 5. independent dressing and transfers (with adjustments)

Precautions:

- 1. sling is work for 6 weeks post-operatively
- 2. sling may be removed for exercises and showering
- 3. when lying on your back the elbow should be supported by a towel
- 4. no active exercises (you lifting the shoulder)
- 5. no supporting of body weight, pulling, or pushing with the shoulder
- 6. keep wound dry for 2 weeks; no pool for 4 weeks

<u>Exercises weeks 2-6:</u> These exercises should be performed with the help of your physiotherapist until you have the correct technique and are confident. Isometric deltoid contractions can be done in combination with the below exercises from week 2 onwards.

PENDULUM

Lean forward so your operated arm hangs. Swing it in clockwise then counter clockwise circles.



PASSIVE ROTATION EXERCISES

Use a stick guided by your good arm to gently rotate the operated arm outwards. Keep your operated elbow by your side. Generally you can rotate from hand on belly to 20 degrees past neutral (hand pointing forwards).





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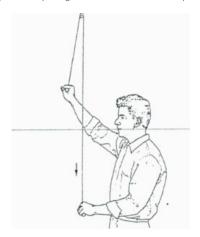
PASSIVE ELEVATION EXERCISE

Use your good arm to lift your affected arm up in front of you. Initially you may need someone to help lift your arm for you. Lift slowly and gradually.



PULLEY EXERCISES

Set up a pulley with a handle at each end of the rope. Use your good arm to move the rope up and down, keeping the operated arm relaxed.



PHASE TWO

From week 6-12 – Active Range of Motion + Early Strengthening – GOALS:

- 1. continue progression of passive range of motion
- 2. weaning from sling by week 7
- 3. gradually restore active range of motion
- 4. continue with wound massage and swelling reduction
- 5. re-establish dynamic shoulder and scapular stability

Precautions:

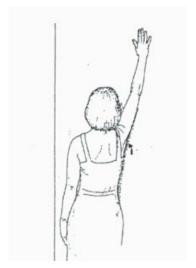
- 1. continue to avoid shoulder extension
- 2. weight lifting restriction during this period is 500g
- 3. no supporting of body weight, or forceful pulling or pushing is permitted

Exercises with Physiotherapy: Full passive range of forward flexion, abduction and rotation (not extension).



ACTIVE RANGE OF MOTION INCLUDING WALL SLIDE

Slide your hand up the wall in front of you with the use of the non-affected arm to assist you.



Begin scapulothoracic joint mobilisation

Encourage use of operated arm for light daily activities
Isotonic activation of all components of deltoid

+ PHASE THREE

After 12 weeks - GOALS:

- 1. Strengthening
- 2. Enhance endurance
- 3. Enhance functional use of arm

Exercises with Physiotherapy:

- 1. begin theraband activities and progress bands as pain + strength tolerates
- 2. progress strengthening to include weight bearing through arm, pulling etc
- 3. may gradually return to gym and recreational activities by 4-6 months
- 4. may do gentle hand behind back activities (wallet, hygiene)

This information is not exhaustive and if you have further questions I would be happy to answer them. Regards,

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Luke McDermott.



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