

Saint Louis University SSM Health Physical Therapy Orthopedic Residency
in Collaboration with Dr. Scott Kaar and Dr. Christopher Kim

Saint Louis University SSM Health Physical Therapy Orthopedic Residency
in Collaboration with Dr. Scott Kaar and Dr. Christopher Kim

Passive & Active assisted ROM¹⁰

Recommended precautions:

FF in scapular plane (wall slides⁸ wand exercises, pulleys)¹¹

ER (gentle beyond 30° to respect subscapularis healing)

FF AROM in supine

Manually resisted scapular side-lying stabilization exercises¹²

Initiate PNF patterning supported such as wall slides¹³

Isometrics:

Deltoid in neutral

ER (modified neutral) ROM < 30°

IR (modified neutral)

Aerobic conditioning including UBE⁷

Axioscapular muscle strength grades 4/5 MMT

Optimal scapulohumeral rhythm to 90° elevation

Minimal pain and inflammation with application of the soreness rules¹⁴ for intensity of exercise

Progress ROM as tolerated¹¹

Uniplanar flexibility exercises into extension and internal rotation

PNF patterning

Recommended precaution: in supine or supported until week 12¹⁵

Isotonic strengthening:

Emphasis on axioscapular muscles (scapular rows¹⁶)

Continued attention to humeral head control and scapulohumeral rhythm with as load progresses

Optimal

Saint Louis University SSM Health Physical Therapy Orthopedic Residency
in Collaboration with Dr. Scott Kaar and Dr. Christopher Kim

For questions regarding

6 Sano T, Aoki M, Tanaka Y, Izumi T, Fujimiya M, Yamashita T. Glenohumeral joint motion after subscapularis tendon repair: An analysis of cadaver shoulder models. *Journal of Orthopedic Surgery and Research*. 2014. 9(41)

7 John Hopkins Medicine. Shoulder Replacement Surgery Rehabilitation.
file:///U:/SLU%20SSM%20Ortho%20Residency/Scholarly%20Products/Kaar_Guidelines/TSA_revTSA/JHopkins_TSA.pdf. Accessed June, 2018.

8 the risk of shoulder dislocation after reverse shoulder arthroplasty. *JSES*. 2017 18, 8920896.

9 Ohio State Sports Medicine. TOTAL SHOULDER ARTHROPLASTY CLINICAL PRACTICE GUIDELINE.
<https://wexnermedical.osu.edu/-/media/files/wexnermedical/patient-care/healthcare-services/sports-medicine/education/medical-professionals/shoulder-and-elbow/totalshoulderarthroplasty.pdf?la=en&hash=ED0F2B267F31E3E578CE73247D4BB9215F07FDF8>.
Accessed June, 2019.

10 Bullock G, Garrigues G, Ledbetter L, Kennedy J. A systematic review of proposed rehabilitation guidelines following anatomic and reverse shoulder arthroplasty. *JOSPT*. 2019 49(5): 337-346.

11 McCann PD, Wootten ME, Kadaba MP, Bigliani LU. A kinematic and electromyographic study of shoulder rehabilitation exercises. *Clin Orthop* 1993;288:179-88.

12 Sebeliski C, Guancho C. Total Shoulder Arthroplasty In Maxey L, Magnusson J eds. *Rehabilitation for the Post surgical Orthopedic Patient*. 3rd Ed St. Louis, MO. 2013 p128.

13 Wise M, Uhl T, Mattacola C, Nitz A, Kibler B. The effect of limb support on muscle activation during shoulder exercise. *JSES* 2004; 13:612-620.

14 Fees M, Decker T, Snyder-