



Anterior Glenohumeral Dislocation Rehabilitation Guideline

Rehabilitation Guideline

This rehabilitation program is designed to return the individual to their activities as quickly and safely as possible. It is designed for rehabilitation following anterior shoulder dislocation. Modifications to this guideline may be necessary dependent on physician specific instruction, specific tissue healing timeline, severity and onset of symptoms, frequency of dislocation, age, arm dominance, prior activity level, associated pathologies, end range neuromuscular control, and other contributing impairments that need to be addressed. This evidence-based anterior shoulder dislocation guideline is criterion-based; time frames and visits in each phase will vary depending on many factors including patient demographics, goals, and individual progress. This guideline is designed to progress the individual through rehabilitation to full sport/ activity participation. The clinician may modify the program appropriately depending on the individual's goals for activity following anterior shoulder dislocation.

This guideline is intended to provide the treating clinician a frame of reference for rehabilitation. It is not intended to substitute clinical judgment regarding the patient's post injury care, based on exam/ treatment findings, individual progress, and/or the presence of associated injuries or complications. If the clinician should have questions regarding progressions, they should contact the referring physician.

General Guidelines/Precautions:

Immediate precautions expected:

- Protect anterior joint capsule.
- Avoid pushing into shoulder external rotation and horizontal abduction.
- Avoid shoulder external rotation at or above 90 degrees of abduction.
- Avoid shoulder extension past neutral.
- Avoid traction force of glenohumeral joint.

General healing timeline expected is 6+ weeks.

Mechanism of injury is typically forceful shoulder abduction and external rotation on an outstretched arm.

Presentation after an anterior dislocation:

- Will likely be immobilized in either slight shoulder external rotation or internal rotation for 1-3 weeks.
- Will have muscle guarding around the cuff muscles.
- May be confirmed with a radiograph

Associated Pathologies:

- Humeral fracture (Hill-Sachs Lesion)
- Labral injury (Bankart Lesion)
- Rotator cuff injury
- Nerve Involvement (axillary nerve/brachial plexus damage)
- Vascular involvement (axillary artery)

Anterior Shoulder Dislocation Rehabilitation Guideline

PHASE	SUGGESTED INTERVENTIONS	GOALS/MILESTONES FOR PROGRESSION
<p>Phase I <i>Acute Phase</i></p> <p><i>Weeks: 0-3 depending on immobilization period.</i></p> <p><i>Expected Visits: 1-4</i></p>	<p>Discuss: Anatomy, existing pathology, rehab schedule and expected progressions.</p> <p>Specific Instructions:</p> <ul style="list-style-type: none"> • Avoid stretching anterior joint capsule. • Avoid pushing into external rotation especially at greater abduction angles • Avoid shoulder extension • Avoid traction force of the glenohumeral joint • Avoid horizontal abduction past the plane of the body • Maintain range of motion within IR and ER in the plane of the scapula. <p>Suggested Treatments: Modalities as indicated for pain and inflammation reduction:</p> <ul style="list-style-type: none"> • Transcutaneous electrical stimulation • Cold pack <p>ROM:</p> <ul style="list-style-type: none"> • Pain-free passive ROM in the plane of the scapula (30:30 position). • Progress pain-free active assist range of motion in internal rotation, external rotation and flexion • Progress towards active range of motion as symptoms allow beginning in plane of scapula IR, ER and flexion. <p>Manual Therapy: Grade I-II posterior joint mobilizations for pain control in scapular plane.</p> <p>Strengthening: Rotator cuff strengthening</p> <ul style="list-style-type: none"> • NMES for rotator cuff activation if needed. • Pain-free submaximal isometrics beginning in 0 degrees of abduction <ul style="list-style-type: none"> • IR and ER: multi angle from neutral to full IR as symptoms allow • Flexion and extension: in neutral (arm not behind body) (0-30 degrees flexion) <p>Forearm and elbow strengthening</p> <ul style="list-style-type: none"> • Submaximal elbow flexion and extension isometrics progress towards isotonic exercises as symptoms allow. <p>Scapula musculature strengthening</p> <ul style="list-style-type: none"> • Serratus Anterior <ul style="list-style-type: none"> • Supine punch progress towards manual resistance. • Wall Slide (below 120) • Lower trapezius and rhomboids (scapular retraction progressing to rows – elbows not behind body) <p>Scapular Stability and Proprioception:</p> <ul style="list-style-type: none"> • Closed chain weight shifts table top <ul style="list-style-type: none"> • Anterior/ posterior, and medial/ lateral. • Rhythmic Stabilization <ul style="list-style-type: none"> • Supine IR and ER in 30 degrees of scapular plane. • Sidelying ER at 0 degrees of abduction. 	<p>Goals of Phase:</p> <ol style="list-style-type: none"> 1. Reduce pain, inflammation, and muscle guarding. 2. Protect anterior joint capsule. 3. Minimize negative effects of immobilization including muscle atrophy, decreased neuromuscular recruitment and ROM loss. 4. Improved flexibility/range of motion. 5. Improve muscle control, activation and proprioception. <p>Criteria to Advance to Next Phase:</p> <ol style="list-style-type: none"> 1. Minimal pain or inflammation. 2. Static shoulder stability. 3. Sufficient neuromuscular control below 100 degrees.

(continued on next page)

Anterior Shoulder Dislocation Rehabilitation Guideline

<p>Phase I (continued)</p>	<p>Stretches (frequent and gentle) Improve posterior capsule mobility</p> <ul style="list-style-type: none"> • Gentle horizontal adduction stretch at 90 degrees (may stabilize scapula). • Sleeper stretch (do not crank) <p>Elbow extension stretch</p>	
<p>Phase II <i>Intermediate Phase</i></p> <p><i>Weeks 3-5 depending on immobilization period.</i></p> <p><i>Expected visits: 2-4</i></p>	<p>Specific Instructions:</p> <ul style="list-style-type: none"> • Continue exercises above. • No lifting weight overhead. <p>Suggested Treatments:</p> <p>Modalities as indicated:</p> <ul style="list-style-type: none"> • Transcutaneous electrical stimulation • Cold pack <p>ROM:</p> <ul style="list-style-type: none"> • Range of motion progressions to pain free end range as symptoms allow. • Progressively work on ER at 30-30 position progressing up to 90-90 over the course of this phase. <p>Manual Therapy:</p> <ul style="list-style-type: none"> • Grade I-II joint mobilizations posterior glide for pain control in scapular plane. <p>Exercise Examples:</p> <p>Strengthening:</p> <p>Continue previous strengthening.</p> <p>Rotator cuff strengthening</p> <ul style="list-style-type: none"> • 30-30 ER and IR progressing to 90-90 ER and IR at the end of the phase or early next phase as pain and motion allows. • D2 and D1 PNF patterns with band. <p>Progress scapular stability and proprioception exercises.</p> <ul style="list-style-type: none"> • Scapular protraction <ul style="list-style-type: none"> • Wall push up with a plus progress towards floor push up with a plus. (watch for scapular dyskinesis, avoid extension beyond plane of body. • Dynamic scap hug • Scapular retraction (not exceeding the plane of body) <ul style="list-style-type: none"> • Progressing towards prone horizontal abduction • Rows to plane of body progressing to full ROM rows at end of phase • Rhythmic stabilization <ul style="list-style-type: none"> • Progress towards ER 45 degrees of abduction then 60 degrees of abduction and 90 degrees over the course of the next two phases <ul style="list-style-type: none"> • Progress to scaption 110 degrees • Progress to various planes • Closed chain weight shifts <ul style="list-style-type: none"> • Progress to quadruped • Progress range to 120 degrees flexion • Open chain stability (ball on wall) <ul style="list-style-type: none"> • Eyes Open, Eyes Closed <p>Incorporate core strengthening</p> <ul style="list-style-type: none"> • Plank progressions • Lower abdominal training <p>Add activities prone on a physio ball.</p>	<p>Goals of Phase:</p> <ol style="list-style-type: none"> 1. Reduce pain. 2. Achieve full PROM and AROM (caution with ER at 90 degrees). 3. Continue to progress rotator cuff strengthening. 4. Restore muscle balance between internal and external rotation (ER 65% of IR). 5. Improve dynamic stability. 6. Improve total body proprioception and control. 7. Improve muscular strength and endurance. 8. Prepare the entire body for return to activity. <p>Criteria to Advance to Next Phase:</p> <ol style="list-style-type: none"> 1. Full Pain-free ROM (symmetrical to uninvolved side). 2. No apprehension.

(continued on next page)

Anterior Shoulder Dislocation Rehabilitation Guideline

<p>Phase II (continued)</p>	<p>Incorporate lower extremity strengthening</p> <ul style="list-style-type: none"> • Add single leg stance to standing exercises. • Add lower extremity squat or split stance with upper extremity activities. <p>Progress strengthening in the following ways over the course of the next two phases:</p> <ul style="list-style-type: none"> • Repetitions (15-18) progress towards (10-12) increasing resistance. • Progress range from 30-30 position to 90-90 position. • Progress to eccentric strengthening. <p>Stretching: Continue previous stretches Gradually restore ER</p> <p>Other Activities: May initiate running program</p>	
<p>Phase III <i>Advanced Strengthening</i></p> <p><i>Weeks 6+ depending on immobilization period. (some exercises may not be appropriate until 8-12 weeks depending on patient presentation)</i></p> <p><i>Expected visits: 4-9</i></p>	<p>Specific Instructions:</p> <ul style="list-style-type: none"> • Continue with the previous exercise program. • Progress towards sport specific skill development. • May initiate light throwing activities as symptoms allow. • Incorporate an active warm up prior to exercise and stretching. • Develop individualized maintenance program. • Recommendations on return to sport around or after 10 weeks. <p>Suggested Treatments: Modalities Indicated: E-stim as needed for pain relief.</p> <p>Exercise Examples: Strengthening Continue Strengthening Above. May Introduce the following strengthening activities without extension beyond the plane of the body. The following movements will have some restrictions in this phase and eventually progressed:</p> <ul style="list-style-type: none"> • Lat pulldown • Chest fly • Bench press (regular, incline) • Shoulder press <p>Initiate Plyometric Activities Throwing</p> <ul style="list-style-type: none"> • Two handed progressing towards one handed. • Progress towards trampoline toss. • Med ball tosses. <p>Dynamic Stabilization</p> <ul style="list-style-type: none"> • Progress towards reactive and sport specific positions. • Wall stability in 90:90 position. • Wall dribble in 90:90 position. <p>Progress total body strength training program. Progress with eccentric high speed contractions. Perform sport specific drills. Gradually progress to competitive throwing as tolerated.</p> <p>Other Activities:</p> <ul style="list-style-type: none"> • Consider Return to Performance Program (if available). • Thrower's 10 • Running program if appropriate 	<p>Goals of Phase:</p> <ol style="list-style-type: none"> 1. No pain. 2. Maintain full shoulder motion. 3. Continue to progress neuromuscular control. 4. Return to strength training with modifications. 5. Improve muscular power, speed and agility and endurance. 6. Ensure proper throwing mechanics (if applicable). 7. Prepare to for return to activity. <p>Criteria to Discharge or Return to Sport:</p> <ol style="list-style-type: none"> 1. All above still met. 2. No pain at rest or with activity. 3. Absent apprehension sign. 4. Symmetrical shoulder range of motion. 5. 67% external: internal rotation ratio within the affected extremity. 6. No apprehension with loading with bodyweight. 7. 90% strength ER and IR compared to uninjured side. 8. Pass CKCUE Stability Test 9. Refer to UE RTD and/or Interval Throwing Program for further return to play guidelines.

REFERENCES:

1. Carr, R. A., & Abrams, G. D. (2017). Management of Acute Shoulder Instability: Conservative Treatment. *Shoulder Instability Across the Life Span*, 49-55. doi:10.1007/978-3-662-54077-0_6
2. Davies, G. Anterior Shoulder Dislocation/Subluxation Rehabilitation Program. Updated 11/03. Gundersen Lutheran Sports Medicine.
3. Hasebroock, A. W., Brinkman, J., Foster, L., & Bowens, J. P. (2019). Management of primary anterior shoulder dislocations: a narrative review. *Sports Medicine - Open*, 5(1). doi: 10.1186/s40798-019-0203-2
4. Ma, R., Brimmo, O. A., Li, X., & Colbert, L. (2017). Current Concepts in Rehabilitation for Traumatic Anterior Shoulder Instability. *Current Reviews in Musculoskeletal Medicine*, 10(4), 499-506. doi: 10.1007/s12178-017-9449-9
5. Reinold, M. M., Escamilla, R., & Wilk, K. E. (2009). Current Concepts in the Scientific and Clinical Rationale Behind Exercises for Glenohumeral and Scapulothoracic Musculature. *Journal of Orthopedic & Sports Physical Therapy*, 39(2), 105-117. doi: 10.2519/jospt.2009.2835
6. Reinold MM, Gill TJ, Wilk KE, Andrews JR. Current concepts in the evaluation and treatment of the shoulder in overhead throwing athletes, part 2: injury prevention and treatment. *Sports Health*. 2010;2(2):101-115.
7. Sgroi, T. A., Vignona, P., & Levinson, M. (2018). Throwing Programs and Return to Sport. *Shoulder and Elbow Injuries in Athletes*, 418-421. doi: 10.1016/b978-0-323-51054-7.00024-5
8. Wilk, KE, Macrina LC. Non-operative and postoperative rehabilitation for injuries of the throwing shoulder. *Sports Med Arthroscopy Rev*. 2014;22(2):137-150.
9. Wilk, K. E., Macrina, L. C., & Reinold, M. M. (2012). Nonoperative rehabilitation for traumatic and atraumatic glenohumeral instability. *Shoulder Instability: A Comprehensive Approach*, 108-125. doi: 10.1016/b978-1-4377-0922-3.00019-8
10. Wilk, KE, Obama P, Simpson III, CD, Cain EL, Dugas J, Andrews JR. Shoulder injuries in the overhead athlete. *J Orthop Sports Phys Ther*. 2009;39(2):38-54.

Revised 6/2021



sanfordhealth.org