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Dr. Chad Myeroff, Shoulder and Elbow Specialist U	pdated: Jan 2021

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Shoulder General Conditioning

Three times per day home exercise program including:

- Phase I
 - 4 quadrant stretches using A/AA/PROM
 - Wall climbs, table slides, sleeper stretches
 - Wand exercises: Supine gravity eliminated FF and external rotation. IR behind the back
 - Posture exercises
 - Periscapular isometrics
 - Rhomboid, Latissimus, Deltoid
- Phase II (when full ROM achieved)
 - Progress to rotator cuff and periscapular strengthening
 - Including isometrics and therabands
- Phase III (at therapist's discretion)
 - Progress towards generalized strengthening and core conditioning
 - Return to high level functional ADLs and simulation of work environment

*OK for modalities as indicated including pool therapy, dry needling, acupuncture as long as it does not detract from regaining motion, posture and strength







Scapular Dyskinesia / Thoracic Outlet / SLAP Tear Non-Operative

Three times per day home exercise program including:

- Phase I
 - 4 quadrant stretches using A/AA/PROM
 - Wall climbs, table slides
 - Wand exercises: Supine gravity eliminated FF and external rotation. IR behind the back, sleeper stretches
 - Pec minor stretches (in doorway)
 - Posture exercises
 - Periscapular isometrics
 - Rhomboid, Latissimus, Deltoid
 - Periscapular proprioception and stabilization
- Phase II (when full ROM achieved)
 - Progress to rotator cuff and periscapular strengthening
 - Including isometrics and therabands
 - o Continue to focus on periscapular proprioception and stabilization
- Phase III
 - o Progress towards generalized strengthening and core conditioning
 - o Return to high level functional ADLs and simulation of work environment

*OK for modalities as indicated including pool therapy, dry needling, acupuncture as long as it does not detract from regaining motion, posture and strength



More info: twincitiesshoulderandelbow.com/slap/







Adhesive Capsulitis (Frozen Shoulder) Non-operative

Three times per day gentle self-guided home stretching program including:

- A/AA/PROM TID 4-quadrant gentle static progressive stretches
 - o Pulleys, table slides, wall climbs, sleeper stretches, supine wand exercises in all planes
- Posture and rhomboid isometrics

*OK for modalities as indicated including pool therapy, dry needling, massage, acupuncture.

*Patient with true adhesive capsulitis may benefit from intra-articular glenohumeral steroid injections up to 4 times per year if needed. Please contact my office and we will facilitate if indicated.



More info: twincitiesshoulderandelbow.com/frozenshoulder/



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Rotator Cuff Tear Non-Operative

Three times per day home exercise program including:

- Phase I
 - 4 quadrant stretches using A/AA/PROM
 - Wall climbs, table slides, sleeper stretches
 - Wand exercises: Supine gravity eliminated FF and external rotation. IR behind the back
 - Posture exercises
 - Periscapular isometrics
 - Rhomboid, Latissimus, Deltoid
- Phase II (when full ROM achieved)
 - Progressive rotator cuff and periscapular strengthening
 - Including isometrics and therabands
- Phase III (at therapist's discretion)
 - Independent home exercise program (lifelong)
 - o Progress towards generalized strengthening and core conditioning
 - o Return to high level functional ADLs and simulation of work environment

*OK for modalities as indicated including pool therapy, dry needling, acupuncture as long as it does not detract from regaining motion, posture and strength

*Patients limited from participation by overhead pain may occasionally benefit from a steroid injection. Please contact my office and we will facilitate if indicated.

More info: twincitiesshoulderandelbow.com/rotatorcuff/



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Rotator Cuff Tear Arthropathy Non-Operative (Reading Protocol)

Three times per day home exercise program including:

Phase 1: Weeks 0-6

- 5 minutes Pendulum Swings
 - o Arm should dangle and hips should provide momentum
- Supine gravity eliminated forward elevation
 - Use contralateral hand to assist (PROM) to 90° FE, hold until fatigued
 - Maintain deltoid contraction through holds
 - Once comfortable
 - Progress to gravity eliminated AROM
 - Then progress up to 180° degrees FE arcs as able
 - Smooth and continuous movements for 5 minutes or until fatigued

Phase 2: Weeks 6-12

- 5 minutes Pendulum Swings
- Weighted supine forward elevation arcs 0-180°
 - o 90° FE, hold until fatigued
 - Maintain deltoid contraction through holds
 - Once comfortable
 - Progress up to 180° degrees FE arcs as able
 - Smooth and continuous movements for 5 minutes or until fatigued
- Semi-recumbent
 - Once able, advance exercises to semi recumbent position (back up to 45°)
 - Advance similar to phase I
- Upright
 - Once able, advance exercises to fully upright position
- Standing
 - Once able, advance exercises to standing position
- Deltoid concentric contraction
 - o Perform anterior deltoid isometric holds pushing up against contralateral arm

More info: twincitiesshoulderandelbow.com/rotatorcuffteararthropathy/







Accelerated Rotator Cuff Repair

Three times per day home exercise program including:

Prehab: 0-6 weeks pre-operative appointment to establish care and coaching on:

- Set expectations and training on recovery, exercises and restrictions, sling donning and doffing
- Work and home evaluation / modifications including ADLs, hygiene, sleep, equipment

Phase 1: Week 0-5 (1st post-operative PT visit scheduled at 1-2 weeks post-operatively)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
- POD 7-14: Formal PT AND TID home exercise program (HEP)
 - Shoulder PROM as tolerated, rhomboid isometrics
 - Pulleys, table slides, supine wand exercises in all planes

Phase 2: Week 5-10

- PROM progressing towards AAROM
- Wean out of sling at 6 weeks (maintain sling use for one more week in public)
 - May begin to use arm for ADLs
- Phase I & II stretches
- No lifting > weight of a coffee cup

Phase 3: Week 10-14

- Add Phase I cuff strengthening, scapular strengthening
- Add biceps and triceps strengthening
- May use arm for ADLs
- No lifting > 5lbs

Phase 4: Week 15-24

- Progressive stretching and strengthening
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment
- No lifting >10 lbs until 18 weeks

*OK for modalities as indicated including pool therapy after 6 weeks

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Standard Rotator Cuff Repair

Three times per day home exercise program including:

Prehab: 0-6 weeks pre-operative appointment to establish care and coaching on:

- Set expectations and training on recovery, exercises and restrictions, sling donning and doffing
- Work and home evaluation / modifications including ADLs, hygiene, sleep, equipment

Phase 1: Week 0-6 (1st post-op PT visit should immediately follow 2-week post-op surgical visit)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
- POD 7-14: Formal PT AND TID home exercise program (HEP)
 - Shoulder PROM, rhomboid isometrics
 - o FF 0-130°, ER 0-30°, Abduction 0-60°
 - Pulleys, table slides, supine wand exercises
- No lifting > weight of coffee cup, no shoulder AROM

Phase 2: Week 6-12

- Wean out of sling (maintain sling use for one more week in public)
- Full unrestricted PROM progressing towards AAROM
 - \circ $\;$ Add wand internal rotation up the back
- May begin to use arm for ADLs avoiding any shoulder AROM
- No lifting > weight of coffee cup

Phase 3: Week 12-18

- Add Phase II stretching
- Initiate AROM
 - At 16 weeks if ROM is full, begin phase I cuff and scapular strengthening
- Light biceps and triceps strengthening
- No lifting > 5lbs

Phase 4: Week 19-24

- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment
- No lifting > 10 lbs
 - At 24 weeks unrestricted upper extremity strengthening, WBAT

*OK for modalities as indicated including pool therapy after 6 weeks

More info: twincitiesshoulderandelbow.com/rotatorcuff/



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Protected Rotator Cuff Repair

Three times per day home exercise program including:

Prehab: 0-6 weeks pre-operative appointment to establish care and coaching on:

- Set expectations and training on recovery, exercises and restrictions, sling donning and doffing
- Work and home evaluation / modifications including ADLs, hygiene, sleep, equipment

Phase 1: Week 0-6 (1st post-op PT visit should immediately follow 2-week post-op surgical visit)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
- POD 7-14: Scapular retractions (rhomboid isometrics), sling donning and doffing
- No lifting, no shoulder AROM.

Phase 2: Week 6-12

- Wean out of sling (maintain sling use for one more week in public).
- Formal PT AND TID home exercise program (HEP)
- Progressive unrestricted PROM
 - Pulleys, table slides, supine wand exercises in all planes
- At 8 weeks
 - May begin to use arm for ADLs avoiding any shoulder AROM
 - o Begin AAROM
- No lifting > weight of coffee cup, no shoulder AROM.

Phase 3: Week 12-18

- Add phase II stretching
- Initiate AROM
 - o At 16 weeks, if ROM is full, begin phase I cuff and scapular strengthening
- Light biceps and triceps strengthening
- No lifting > 5 lbs

Phase 4: Week 19-24

- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment
- No lifting > 10 lbs
- At 24 weeks unrestricted upper extremity strengthening, WBAT

*OK for modalities as indicated including pool therapy after 6 weeks

More info: twincitiesshoulderandelbow.com/rotatorcuff/



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Superior Capsular Reconstruction

Three times per day home exercise program including:

Prehab: 0-6 weeks pre-operative appointment to establish care and coaching on:

- Set expectations and training on recovery, exercises and restrictions, sling donning and doffing
- Work and home evaluation / modifications including ADLs, hygiene, sleep, equipment

Phase 1: Week 0-6 (1st post-op PT visit should immediately follow 2-week post-op surgical visit)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
- Week 2: Scapular retractions (rhomboid isometrics), sling donning and doffing
- No lifting, no shoulder AROM.

Phase 2: Week 6-12

- Wean out of sling (maintain sling use for one more week in public).
- Formal PT AND TID home exercise program (HEP)
- Progressive unrestricted PROM
 - Pulleys, table slides, supine wand exercises in all planes
- At 8 weeks
 - May begin to use arm for ADLs avoiding any shoulder AROM
 - o Begin AAROM
- No lifting > weight of coffee cup, no shoulder AROM.

Phase 3: Week 12-18

- Add phase II stretching
- Initiate AROM
 - o At 16 weeks, if ROM is full, begin phase I cuff and scapular strengthening
- Light biceps and triceps strengthening
- No lifting > 5 lbs

Phase 4: Week 19-24

- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment
- No lifting > 10 lbs
 - At 24 weeks unrestricted upper extremity strengthening, WBAT

*OK for modalities as indicated including pool therapy after 6 weeks

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Latissimus or Lower Trapezius Tendon Transfer

Three times per day home exercise program including:

Prehab: 0-6 weeks pre-operative appointment to establish care and coaching on:

- Set expectations and training on recovery, exercises and restrictions, sling donning and doffing
- Work and home evaluation / modifications including ADLs, hygiene, sleep, equipment

Phase 1: Week 0-6 (1st post-op PT visit should immediately follow 2-week post-op surgical visit)

- Maintain sling use in max external rotation (except for hygiene, TID finger, wrist, elbow AROM)
 OK for axillary cares (hangs) but no pendulum swings / Codman's.
- POD 7-14: Scapular retractions (rhomboid isometrics), sling donning and doffing
- No lifting, no shoulder AROM.

Phase 2: Week 6-12

- Maintain sling use in max external rotation (except for hygiene, TID therapy)
- Formal PT AND TID home exercise program (HEP)
- Progressive PROM
 - Pulleys, table slides, supine wand exercises in all planes
 - Avoid internal rotation past neutral
- At 8 weeks
 - May begin to use arm for ADLs avoiding any shoulder AROM
 - Begin AAROM
- No lifting > weight of coffee cup, no shoulder AROM.

Phase 3: Week 12-18

- Add phase II stretching
 - Advance to unrestricted PROM
- Initiate AROM
 - At 16 weeks, if ROM is full, begin phase I cuff and scapular strengthening
- Light biceps and triceps strengthening
- No lifting > 5 lbs

Phase 4: Week 19-24

- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment
- No lifting > 10 lbs
- At 24 weeks unrestricted upper extremity strengthening, WBAT

*OK for modalities as indicated including pool therapy after 6 weeks

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Acromioclavicular (AC) Joint Separation - Non-Operative

Three times per day home exercise program including:

Phase 1: Week 0-2

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
 - Elbow should be supported
- Rhomboid and periscapular isometrics, posture exercises
 - No lifting > weight of coffee cup
 - No active shoulder ROM
- No pushing or weight-bearing through arm

Phase 2: Week 2-6

- Wean out of sling for therapy and in the house
 - Continue sling in public and at work
- Continue elbow, wrist and finger motion, periscapular isometrics
- Begin Formal PT AND three times daily (TID) home exercise program (HEP)
 - Shoulder 4 quadrant AA/PROM progressing towards AROM
 - Pulleys, table slides, supine wand exercises in all planes
- No lifting > 5lbs

Phase 3: Week 6-12 (as pain resolves)

- Discontinue sling altogether
- Advance to gentle strengthening
 - Phase I and II rotator cuff strengthening
- Periscapular and complete extremity strengthening
- No Lifting > 10lbs

Phase 4: Week 12-16

- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment
- No Restrictions

More info: twincitiesshoulderandelbow.com/acseparation/



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Acromioclavicular (AC) Joint Separation – Anatomic Reconstruction

Three times per day home exercise program including:

Phase 1: Week 0-6 (1st PT visit scheduled to follow on day of 2-week post-op surgical visit)

- Maintain sling use (except for TID finger, wrist, elbow AROM, hygiene and therapy)
- Add supine passive ER 0-30° with wand at 2 weeks post op
 - *Focus on static progressive stretching
- Periscapular isometrics in neutral
- No lifting > weight of coffee cup
- No pushing or weight-bearing through arm

Phase 2: Week 6-12

- Wean out of sling for therapy and in the house
 - Continue sling in public for 12 weeks
- Light and pain free biceps/triceps strengthening
- Begin PT
 - Unrestricted shoulder PROM
 - Pulleys, table slides, supine wand exercises in all planes
- Shoulder AAROM at 8 weeks
- No pushing or weight-bearing through arm

Phase 3: Week 12-18 weeks

- Discontinue sling altogether
- Advance to AROM
 - Continue 4 quadrant stretches
- Phase I and II rotator cuff strengthening
- Periscapular strengthening
- No Lifting > 10lbs
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/acseparation/



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Acromioclavicular (AC) Joint Separation – Reconstruction with Hook Plate

Three times per day home exercise program including:

Phase 1: Week 0-6 (1st PT visit scheduled to follow on day of 2-week post-op surgical visit)

- Maintain sling use (except for TID finger, wrist, elbow AROM, hygiene and therapy)
- Unrestricted PROM
 - Pulleys, table slides, supine wand exercises in all planes
- Periscapular isometrics in neutral
- No lifting > weight of coffee cup

Phase 2: Week 6-12

- Wean out of sling for therapy and in the house
 - Continue sling in public for 12 weeks
- Light and pain free biceps/triceps strengthening
- Periscapular isometrics
- Advance to unrestricted AAROM
 - Shoulder AROM at 8 weeks
- No lifting > weight of coffee cup

Phase 3: Week 12-18 weeks

- Discontinue sling altogether
- Continue 4 quadrant stretches
- Phase I and II rotator cuff strengthening
- Periscapular strengthening
- No Lifting > 10lbs
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment





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Sternoclavicular (SC) Joint – Reconstruction or Repair

Three times per day home exercise program including:

Phase 1: Week 0-6 (1st PT visit scheduled to follow on day of 2-week post-op surgical visit)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - $\circ~$ OK for axillary cares (hangs) but no pendulum swings / Codman's.
- Add supine passive ER 0-30° with wand at 2 weeks post op
 - *Focus on static progressive stretching
- No overhead lifting
- No lifting > weight of coffee cup
- No pushing or weight-bearing through arm

Phase 2: Week 6-12

- Wean out of sling for therapy and in the house
 - Continue sling in public until 12 weeks post-operative
- Add periscapular isometrics
- Advance to shoulder PROM / AAROM as tolerated in all planes
 - Pulleys, table slides, supine wand exercises in all planes
- no more than a coffee cup overhead, avoid pushing and pulling

Phase 3: Week 12-18 weeks

- Discontinue sling altogether
- Advance to shoulder strengthening
 - Phase I and II rotator cuff strengthening
 - Periscapular strengthening
- No Lifting > 5 lbs
- Independent home exercise program

Phase 4: 18+ weeks

- Return to high level functional ADLs and simulation of work environment
- No return to contact sports prior to 6 months for posterior SC dislocations



More info: twincitiesshoulderandelbow.com/scdislocation/



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Proximal Biceps Tenodesis (open or arthroscopic)

Three times per day home exercise program including:

Phase 1: Week 0-6 (1st PT visit scheduled to follow on day of 2-week post-op surgical visit)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
 - Wean from sling at 2 weeks
- POD 7-14: Formal PT AND three times daily (TID) home exercise program (HEP)
 - Weeks 2-4 Unrestricted shoulder AA/PROM
- 4 weeks: Progress to AROM
- No lifting > weight of coffee cup
- Rhomboid and periscapular isometrics
- Core strengthening for athletes

Phase 2: Week 6-12

- Continue unrestricted A/AAPROM
- Phase 1 cuff, biceps and triceps strengthening once ROM full.
- No lifting > 5 lbs

Phase 3: Week 12-16

- Continue stretching and strengthening as tolerated
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment



More info: twincitiesshoulderandelbow.com/proximalbiceps/







Pectoralis Major Repair

Three times per day home exercise program including:

Phase 1: Week 0-6 (1st post-op PT visit should immediately follow 2-week post-op surgical visit)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
- POD 7-14: Begin formal PT AND three times daily (TID) home exercise program (HEP)
 - Posture, rhomboid isometrics
 - Supine gravity eliminated PROM FF 0-90°, ER to neutral°, Abduction 0-60°
- No lifting > weight of coffee cup

Phase 2: Week 6-12

- Wean out of sling (maintain sling use for one more week in public)
- Full unrestricted PROM progressing towards AAROM
 - Pulleys, table slides, supine wand exercises in all planes
- Periscapular isometrics
- May begin to use arm for ADLs avoiding any shoulder AROM
- No lifting > weight of coffee cup

Phase 3: Week 12-16

- Advance to AROM
- Add Phase II stretching and phase I cuff strengthening, periscapular strengthening
- Add light biceps and triceps strengthening
- No lifting > 5lbs

Phase 4: Week 16+

- Progressive unrestricted general shoulder strengthening and conditioning
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment



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Distal Clavicle Excision (open or arthroscopic)

Three times per day home exercise program including:

Phase 1: Week 0-6 (1st PT visit scheduled to follow on day of 2-week post-op surgical visit)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
 - Wean from sling at 2 weeks
- POD 1: hygiene, finger, wrist, elbow AROM
- POD 7-10 (at 1st therapy visit): Formal PT AND Three time daily (TID) home exercise program (HEP)
 - o Add unrestricted shoulder PROM, rhomboid isometrics
 - Progress AAROM → AROM → Phase I and II cuff and periscapular strengthening as able
- OK to use arm for ADLs
- No lifting > weight of coffee cup

Phase 2: Week 6-12

- Progressive generalized upper extremity strengthening, no restrictions
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment



More info: twincitiesshoulderandelbow.com/acarthritis/







Arthroscopic Debridement and/or Subacromial Decompression

Three times per day home exercise program including:

Phase 1: Week 0-6 (1st PT visit scheduled to follow on day of 2-week post-op surgical visit)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
 - Wean from sling at 2 weeks
- POD 1: hygiene, finger, wrist, elbow AROM
- POD 7-10 (at 1st therapy visit): Formal PT AND Three times daily (TID) home exercise program (HEP)
 - \circ $\;$ Add unrestricted shoulder PROM, rhomboid isometrics $\;$
 - Progress AAROM → AROM
- OK to use arm for ADLs
- No lifting > 5#

Phase 2: Week 6-12

- Phase I and II cuff and periscapular strengthening as able
- Generalized upper extremity strengthening, progress to activities as tolerated
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment



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Arthroscopic Shoulder Capsular Release, Manipulation Under Anesthesia

Three times per day home exercise program including:

Phase 0: Day of Surgery – Post-op day 2

- Patient will have long acting shoulder block
 - Should have <u>formal therapy</u> visit <u>pre-arranged</u> day of and day after surgery:
 - Immediately following surgery PACU recovery (POD#0)
 - 1st appointment the following morning (POD#1)
- PROM with therapist assist as long as block is functional
- Maintain sling use outside of therapy

Phase 1: Day 2 – week 6

- Wean out of sling after block wears off
- Formal PT AND Three times daily (TID) home exercise program (HEP)
- Unrestricted PROM and AROM via TID formal PT AND home exercise program
 - o Pulleys, table slides, wall climbs, sleeper stretches, supine wand exercises in all planes
- Scapular stabilization, rhomboid and lower trapezius strengthening
- Use arm for ADLs

Phase 2: Week 6-12

- Add rotator cuff, and periscapular strengthening once ROM is full
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment



More info:

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Anterior Shoulder Dislocation (Anterior Bankart) Non-Operative

Three times per day home exercise program including:

Phase 1: Week 0-2

- Sling as needed (except for hygiene, TID finger, wrist, elbow AROM and therapy)
- Deltoid and periscapular isometrics, posture control

Phase 2: Week 2-6

- Wean from sling (for comfort only)
- A/AAROM and gentle PROM 4-quadrant stretches
 - o Pulleys, table slides, supine wand exercises in all planes
 - Avoid the position of apprehension (90-90) position
- Periscapular isometrics and strengthening, scapular stabilization and proprioception
- Phase I and II rotator cuff strengthening
- Biceps and triceps, total arm strengthening
- Core conditioning

Phase 2: Week 6-12

- Advance to unrestricted A/AA/PROM
- Unrestricted UE and total body strengthening and conditioning
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/shoulderdislocation/







Posterior Shoulder Dislocation (Posterior Bankart) Non-operative

Three times per day home exercise program including:

Phase 1: Week 0-2

- Gunslinger (external rotation) sling full time
- TID finger ROM
- Infraspinatus, Deltoid, periscapular isometrics, posture

Phase 2: Week 2-6

- Gunslinger (external rotation) sling full time
 - OK to remove for hygiene and TID elbow wrist finger AROM

Phase 3: Week 6-12

- Gunslinger (external rotation) sling full time except for hygiene and TID therapy
- A/AAROM and gentle PROM
 - o Upright pulleys, table slides, supine wand exercises in all planes
 - Avoid internal rotation past neutral
- Periscapular isometrics and strengthening, scapular stabilization and proprioception
- Phase I cuff strengthening
- Biceps and triceps, total arm strengthening
- Core conditioning

Phase 3: Week 12-16

- Advance to unrestricted A/AA/PROM
- Phase II cuff strengthening
- Unrestricted UE and total body strengthening and conditioning
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment



More info: twincitiesshoulderandelbow.com/shoulderdislocation/



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Arthroscopic Anterior Bankart Repair (or SLAP)

Three times per day home exercise program including:

Phase 1: Week 0-6 (1st PT visit scheduled to follow on day of 2-week post-op surgical visit)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
- POD 7-14: Formal PT AND three time daily (TID) home exercise program (HEP)
 - Passive ER 0-30 supine wand with elbow at the side
 - Passive FF 0-140 (OK to table slides, pulleys, supine wand exercises)
 - Avoid 90-90 position of apprehension
 - Periscapular isometrics
- Core strengthening
- No lifting greater than a coffee cup

Phase 2: Week 6-12

- Wean out of sling (maintain for one more week in public)
- PROM 4-quadrant stretches
 - \circ No restrictions other than avoiding the 90-90 position of apprehension
 - Phase I and II stretches
 - o Pulleys, table slides, supine wand exercises in all planes
- Periscapular strengthening, isometrics, stabilization and proprioception
- Phase I cuff strengthening
- Light biceps and triceps strengthening
- No lifting > 5 lbs

Phase 3: Week 12-16

• Once ROM is full, begin phase II Cuff and total arm strengthening

Phase 4: Week 16-18

- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment



More info: twincitiesshoulderandelbow.com/shoulderdislocation/



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Arthroscopic Posterior Bankart Repair

Three times per day home exercise program including:

Phase 1: Week 0-6 (1st PT visit scheduled to follow on day of 2-week post-op surgical visit)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
- POD 7-14: Formal PT AND three times daily (TID) home exercise program (HEP)
 - Passive ER 0-30 supine wand with elbow at the side
 - Passive FF 0-140 (OK to table slides, pulleys, upright wand exercises)
 - Periscapular and infraspinatus isometrics
- Core strengthening
- No lifting greater than a coffee cup

Phase 2: Week 6-12

- Wean out of sling (maintain for one more week in public)
- PROM 4-quadrant stretches, unrestricted
 - Phase I and II stretches
 - Pulleys, table slides, upright wand exercises in all planes
- Periscapular strengthening, isometrics, stabilization and proprioception
- Phase I cuff strengthening
- Light biceps and triceps strengthening
- No lifting > 5 lbs
 - No pushing or bike riding until 12 weeks post op

Phase 3: Week 12-16

- Once ROM is full, begin phase II Cuff and total arm strengthening
- No pushups until 3-4 month's post op

Phase 4: Week 16-18

- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment



More info: twincitiesshoulderandelbow.com/shoulderdislocation/



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Open Anterior Bankart Repair (subscap protection)

Three times per day home exercise program including:

Phase 1: Week 0-6 (1st PT visit scheduled to follow on day of 2-week post-op surgical visit)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
- POD 7-14: Formal PT AND three times daily (TID) home exercise program (HEP)
 - AAROM ER to neutral (within confines of pain)
 - Passive FF 0-140 (OK to table slides, pulleys, supine wand exercises)
 - Avoid 90-90 position of apprehension
 - o Periscapular isometrics
- Core strengthening
- No lifting greater than a coffee cup

Phase 2: Week 6-12

- Wean out of sling (maintain for one more week in public)
- PROM 4-quadrant stretches
 - ER 0-30 (within confines of pain)
 - Avoid the 90-90 position of apprehension
 - Phase I and II stretches
 - o Pulleys, table slides, supine wand exercises in all planes
- Periscapular strengthening, isometrics, stabilization and proprioception
- Light biceps and triceps strengthening
- No lifting > weight of a coffee cup

Phase 3: Week 12-16

- Advance to unrestricted A/AA/PROM
- Once ROM is full, begin phase I and II Cuff and total arm strengthening
- No lifting >5 lbs

Phase 4: Week 16-18

- Total arm strengthening, no restrictions
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/shoulderdislocation/



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Open Reduction and Internal Fixation Anterior Glenoid (Subscap Split)

Three times per day home exercise program including:

Phase 1: Week 0-6 (1st PT visit scheduled to follow on day of 2-week post-op surgical visit)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
- POD 7-14: Formal PT AND three times daily (TID) home exercise program (HEP)
 - PROM ER 0-30° with elbow at the side, FF 0-130°
 - Table slides, pulleys, supine wand exercises
 - Periscapular isometrics
- No lifting greater than a coffee cup

Phase 2: Week 6-12

- Wean out of sling (except for in public)
- A/AA/PROM 4-quadrant stretches avoiding the position of apprehension
 - Unrestricted phase I and II stretches
 - Pulleys, table slides, supine wand exercises in all planes
 - Periscapular isometrics, stabilization and proprioception
- Biceps, triceps isometric strengthening
- No lifting greater than a coffee cup

Phase 3: Week 12-16

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- Begin phase I cuff strengthening once ROM is full
 - Add total arm strengthening
- No lifting > 5 lbs

Phase 4: Week 16-18

- Unrestricted strengthening
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment



More info: http://twincitiesshoulderandelbow.com/glenoid/



twincitiesshoulderandelbow.com/patienteducationdocuments/





Open Posterior Shoulder Fracture-Dislocation Repair (Modified McLaughlin)

Three times per day home exercise program including:

Phase 1: Week 0-6 (1st PT visit scheduled to follow on day of 2-week post-op surgical visit)

- Gunslinger (ER) sling (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
- POD 7-14: Formal PT AND three times daily (TID) home exercise program (HEP)
 - Active assist ER 0-20 (within confines of discomfort)
 - Passive FF 0-140 (OK to table slides, pulleys, upright wand exercises)
 - o No IR past neutral
 - Periscapular and infraspinatus isometrics
- Core strengthening
- No lifting greater than a coffee cup

Phase 2: Week 6-12

- Continue gunslinger sling in 0-20 or external rotation
- AA/PROM 4-quadrant stretches
 - ER 0-30 (within confines of pain)
 - Phase I and II stretches
 - Pulleys, table slides, supine wand exercises
 - Avoid IR past neutral
- No lifting > weight of a coffee cup
 - No pushing or bike riding until 12 weeks post op

Phase 3: Week 12-16

- Wean from sling
- Advance to unrestricted A/AA/PROM
- Once ROM is full, begin phase I and II Cuff and total arm strengthening
- Periscapular strengthening, isometrics, stabilization and proprioception
- No lifting >5 lbs
 - No bench press of pushups until 4 months

Phase 4: Week 16-18

- Total arm strengthening, no restrictions
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/shoulderdislocation/



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Latarjet Procedure (Coracoid Transfer)

Three times per day home exercise program including:

Phase 1: Week 0-6 (1st PT visit scheduled to follow on day of 2-week post-op surgical visit)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
- POD 7-14: Formal PT AND three times daily (TID) home exercise program (HEP)
 - PROM ER 0-30° with elbow at the side, FF 0-130°
 - Table slides, pulleys, supine wand exercises
 - Periscapular isometrics
- Core strengthening
- No lifting greater than a coffee cup

Phase 2: Week 6-12

- Wean out of sling (maintain for one more week in public)
- A/AA/PROM 4-quadrant stretches avoiding the position of apprehension
 - Unrestricted phase I and II stretches
 - Pulleys, table slides, supine wand exercises in all planes
- Periscapular isometrics, stabilization and proprioception
- Begin phase I cuff strengthening once ROM is full
- Biceps, triceps, deltoid strengthening
- No lifting > 5 lbs

Phase 3: Week 12-16

• Add total arm strengthening

Phase 4: Week 16-18

- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment



More info: twincitiesshoulderandelbow.com/shoulderdislocation/



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Anatomic Total Shoulder Arthroplasty / Hemiarthroplasty

Three times per day home exercise program including:

Prehab: 0-6 weeks pre-operative appointment to establish care and coaching on:

- Set expectations and training on recovery, exercises and restrictions, sling donning and doffing
- Work and home evaluation / modifications including ADLs, hygiene, sleep, equipment

Phase 1: Week 0-6 (1st post-op PT visit should immediately follow 2-week post-op surgical visit)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
- POD 7-14: Formal PT AND three times daily (TID) home exercise program (HEP)
 - PROM: ER 0-30° (subscap protection) with elbow at the side, FF 0-140°
 - Overhead pulleys, table slides, supine wand exercises
 - Periscapular isometrics
- No lifting > weight of coffee cup

Phase 2: Week 6-12

- Wean from sling except when in public
- Advance to unrestricted PROM \rightarrow AAROM
 - o Overhead pulleys, table slides, wall climbs, supine wand exercises
- ER (infraspinatus), rhomboid, deltoid, lat isometrics
- Begin to use arm for ADLs avoiding shoulder AROM
- No lifting > weight of coffee cup
- No active IR (subscap protection)

Phase 3: Week 12-18

- Unrestricted AROM
- Phase I cuff strengthening \rightarrow total arm strengthening once ROM is full
- Periscapular strengthening
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment
- Activities as tolerated
 - Avoid repetitive heavy lifting, bench press, military press, pushups
- *OK for modalities as indicated including pool therapy after 6 weeks





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Reverse Total Shoulder Arthroplasty

Three times per day home exercise program including:

Prehab: 0-6 weeks pre-operative appointment to establish care and coaching on:

- Set expectations and training on recovery, exercises and restrictions, sling donning and doffing
- Work and home evaluation / modifications including ADLs, hygiene, sleep, equipment

Phase 1: Week 0-6 (1st post-op PT visit should immediately follow 2-week post-op surgical visit)

- Sling for comfort only (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
- POD 7-14: Formal PT AND three times daily (TID) home exercise program (HEP)
 - Unrestricted AA/PROM
 - Overhead pulleys, table slides, supine wand exercises
 - o Deltoid, rhomboid, lat, external rotation isometrics
- No lifting > weight of a coffee cup

Phase 2: Week 6-12

- Wean from sling
- Advance to AAROM → AROM as pain allows
- Overhead pulleys, table slides, wall climbs, supine wand exercises
- Continue isometrics
- Begin to use arm for ADLs
- Activities as tolerated

Phase 3: Week 12-18

- Cuff and periscapular strengthening \rightarrow total arm strengthening once ROM is full
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment
- Activities as tolerated
 - o Avoid repetitive heavy lifting, bench press, military press, pushups
 - Avoid pushing out of a chair

*OK for modalities as indicated including pool therapy after 6 weeks

More info: twincitiesshoulderandelbow.com/rotatorcuffteararthropathy/



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Proximal Humerus Fracture – Non-operative

Three times per day home exercise program including:

Phase 1: Week 0-4 (starting immediately)

- Maintain sling use, keep elbow supported, no shoulder ROM, avoid firing shoulder muscles
- OK to come out of sling for:
 - o hygiene (ok for axillary hangs, no pendulum swings or Codman's
 - TID finger, wrist, elbow AROM
- No lifting > weight of a coffee cup

Phase 2: Appx Week 4-8

*Initiation will be based in initial signs of fracture callous healing

- Continue sling except for TID therapy
 - Formal PT AND three times daily (TID) home exercise program (HEP)
 - PROM 4 quadrant stretches as pain allows
 - Overhead pulleys, table slides, supine wand exercises
 - Posture and rhomboid isometrics
- No lifting > weight of a coffee cup

Phase 3: Appx Week 8-12

- *Initiation based on complete fracture healing
- Wean from sling except in public
- Advance to AAROM then AROM as pain allows
- No lifting > 5#

Phase 4: Week 12-16

- Continue aggressive TID HEP shoulder A/AA/PROM
- Cuff and periscapular strengthening ightarrow total arm strengthening, core strengthening
 - Initiate once ROM has plateaued
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/proximalhumerus/



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Proximal Humerus Fracture – Operative Fixation

Three times per day home exercise program including:

Phase 1: Week 0-6 (1st PT visit scheduled within 7-10 days of surgery)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
- POD 7-14: Formal PT AND three times daily (TID) home exercise program (HEP)
 - PROM 4 quadrant stretches as pain allows
 - Overhead pulleys, table slides, supine wand exercises
 - Posture and rhomboid isometrics
- No lifting > weight of a coffee cup
- No AROM

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Phase 2: Week 6-12

- Wean from sling except in public
- Continue progressive unrestricted PROM 4 quadrant stretches
 - Posture and rhomboid isometrics
 - Advance to AAROM ightarrow AROM as pain allows
- Deltoid, rhomboid, lat, ER isometrics
- No lifting > 2#

Phase 3: Week 12-16

- Cuff and periscapular strengthening → total arm strengthening, core strengthening
 Once ROM maximized
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment
- No restrictions

More info: twincitiesshoulderandelbow.com/proximalhumerus/







Greater Tuberosity Fracture – Operative Fixation

Three times per day home exercise program including:

Phase 1: Week 0-6 (1st PT visit scheduled within 7-10 days of surgery)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
- POD 7-10: Formal PT AND TID home exercise program (HEP)
 - Shoulder PROM, rhomboid isometrics
 - o FF 0-130°, ER 0-30°, Abduction 0-60°
 - Pulleys, table slides, supine wand exercises
- No lifting > weight of coffee cup, no shoulder AROM

Phase 2: Week 6-12

- Wean out of sling (maintain sling use for one more week in public)
- Full unrestricted PROM progressing towards AAROM
 - Add wand internal rotation up the back
- May begin to use arm for ADLs avoiding any shoulder AROM
- No lifting > weight of coffee cup

Phase 3: Week 12-18

- Add Phase II stretching
- Initiate AROM
 - o At 16 weeks if ROM is full, begin phase I cuff and scapular strengthening
- Light biceps and triceps strengthening
- No lifting > 5lbs

Phase 4: Week 19-24

- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment
- No lifting > 10 lbs
 - At 24 weeks unrestricted upper extremity strengthening, WBAT

*OK for modalities as indicated including pool therapy after 6 weeks

More info: twincitiesshoulderandelbow.com/proximalhumerus/



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Proximal Humerus Fracture – Reverse Shoulder Arthroplasty

Three times per day home exercise program including:

Phase 1: Week 0-6 (1st post-op PT visit should immediately follow 2-week post-op surgical visit)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
- POD 7-14: Formal PT AND three times daily (TID) home exercise program (HEP)
 - PROM: ER with elbow at the side, FF 0-140°
 - Overhead pulleys, table slides, supine wand exercises
 - Periscapular isometrics

Phase 2: Week 6-12

- Wean from sling except when in public
- Advance to AAROM as pain allows
- Overhead pulleys, table slides, wall climbs, supine wand exercises
- Deltoid, rhomboid, lat, ER isometrics
- Begin to use arm for ADLs

Phase 3: Week 12-18

- Advance to AROM
- Cuff and periscapular strengthening \rightarrow total arm strengthening
 - Once ROM maximized
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment
- Activities as tolerated
 - Avoid repetitive heavy lifting
 - No bench press, military press, pushups
 - Avoid pushing out of a chair

More info: twincitiesshoulderandelbow.com/proximalhumerus/



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Clavicle Fracture – Non-Operative

Three times per day home exercise program including:

Phase 1: Week 0-4 (early fracture healing)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
 - Elbow should be supported
- Rhomboid and periscapular isometrics, posture exercises
 - No lifting > weight of coffee cup
 - No active shoulder ROM
- No pushing or weight-bearing through arm

Phase 2: Week 4-8

- Wean out of sling for therapy and in the house
 - Continue sling in public for 12 weeks
- Continue elbow, wrist and finger motion, periscapular isometrics
- Begin Formal PT AND three times daily (TID) home exercise program (HEP)
 - Shoulder 4 quadrant PROM progressing towards AAROM
 - Pulleys, table slides, supine wand exercises in all planes
- No lifting > weight of coffee cup

Phase 3: Week 8-12 (following clinical fracture healing)

- Discontinue sling altogether
- Advance to AROM
 - o Continue 4 quadrant stretches, periscapular isometrics, posture
- Phase I and II rotator cuff strengthening
- Periscapular and complete extremity strengthening
- No Lifting > 10lbs

Phase 4: Week 12-16

- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/clavicle/







Clavicle Fracture – ORIF

Three times per day home exercise program including:

Phase 1: Week 0-2 (1st PT visit scheduled to follow on day of 2-week post-op surgical visit)

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
- Rhomboid and periscapular isometrics, posture exercises
 - No lifting > weight of coffee cup
 - No active shoulder ROM
- No pushing or weight-bearing through arm

Phase 2: Week 2-6

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- Use sling only as needed
- Continue elbow, wrist and finger motion, periscapular isometrics
- Begin Formal PT AND three times daily (TID) home exercise program (HEP)
 - o Shoulder 4 quadrant PROM, AAROM, AROM
 - Pulleys, table slides, supine wand exercises in all planes
- No lifting > weight of coffee cup

Phase 3: Week 6-12 weeks (following clinical fracture healing)

- Discontinue sling altogether
- Phase I and II rotator cuff strengthening
- Periscapular, complete extremity, core strengthening
- Activities as tolerated (if there are signs of bony healing)
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment



More info: twincitiesshoulderandelbow.com/clavicle/



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Distal Clavicle Fracture – ORIF

Three times per day home exercise program including:

Phase 1: Week 0-6 (1st PT visit scheduled to follow on day of 2-week post-op surgical visit)

- Maintain sling use (except for TID finger, wrist, elbow AA/AROM, hygiene and therapy)
- Add supine passive ER 0-30°, FF 0-140°, gentle IR up the back with wand at 2 weeks post op
 - \circ *Focus on static progressive stretching
- Periscapular isometrics in neutral
- No lifting > weight of coffee cup
- No pushing or weight-bearing through arm

Phase 2: Week 6-12

- Wean out of sling for therapy and in the house
 - Continue sling in public / work for 12 weeks
- Light and pain free biceps/triceps strengthening
- Unrestricted shoulder AA/PROM
 - Pulleys, table slides, supine wand exercises in all planes
- No lifting 5# at side of 1# overhead

Phase 3: Week 12-18 weeks

- Discontinue sling altogether
- Advance to AROM
 - o Continue 4 quadrant stretches
- Phase I and II rotator cuff strengthening once ROM full
- Periscapular strengthening
- No Lifting restrictions once fracture is healed
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/clavicle/



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Rib Fracture / Chest Wall – ORIF

Three times per day home exercise program including:

Phase 1: Week 0-6

- Posture and periscapular isometrics
- Incentive spirometry every hour
- Preference for upright or seated posture as able
- Should ambulate at least TID
- Weight bearing as tolerated for transfers and mobilization
 - No lifting > weight of coffee cup overhead
 - Avoid excessive bending and twisting

Phase 2: Week 6-12 weeks

- Add upper extremity and core conditioning
- Lift no more than 5# overhead

Phase 3: 12-18 weeks

- Activities as tolerated without restrictions
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment



More info: twincitiesshoulderandelbow.com/ribfractures/



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Scapula Body Fracture – Non-operative

Three times per day home exercise program including:

Phase 1: Week 0-2

- Maintain sling use (except for hygiene, TID finger, wrist, elbow AROM and therapy)
 - OK for axillary cares (hangs) but no pendulum swings / Codman's.
 - Elbow should be supported
 - No lifting > weight of coffee cup
 - No active shoulder ROM
- Begin TID HEP for elbow wrist finger ROM

Phase 2: Week 2-6

- Use sling except with hygiene and TID therapy
- Continue elbow, wrist and finger motion
- Begin Formal PT AND three times daily (TID) home exercise program (HEP)
 - Shoulder 4 quadrant PROM, AAROM
 - Pulleys, table slides, supine wand exercises in all planes
- No lifting > weight of coffee cup

Phase 3: Week 6-12 weeks (following clinical fracture healing)

- Wean from sling
- Add shoulder AROM, continue PROM, AAROM
- Rhomboid and periscapular isometrics, posture exercises
- Phase I and II rotator cuff strengthening when ROM is full and painless and fracture is healed
- Periscapular, complete extremity, core strengthening
- Activities as tolerated (if there are signs of bony healing)
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment



More info: twincitiesshoulderandelbow.com/scapula/



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Scapula Body Fracture – ORIF

Three times per day home exercise program including:

Phase 1: Week 0-6

- Sling as needed for comfort
- No lifting > weight of coffee cup
- Begin formal PT and TID HEP
 - Elbow wrist finger ROM
 - o Shoulder 4 quadrant PROM, AAROM
 - Pulleys, table slides, supine wand exercises in all planes
- Rhomboid and periscapular isometrics, posture exercises

Phase 2: Week 6-12 weeks

- Wean from sling
- Add shoulder AROM, continue PROM, AAROM
- Phase I cuff strengthening when ROM is full and painless and fracture is healed
- Periscapular, complete extremity, core strengthening
- Lift no more than 5# overhead

Phase 3: 12-18 weeks

- Phase 2 cuff strengthening once ROM is full
- Activities as tolerated without restrictions
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment



More info: twincitiesshoulderandelbow.com/scapula/



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Humeral Shaft Fracture – Non-Operative

Three times per day home exercise program including:

Phase 1: Week 0-2 (to start immediately after initiation of Sarmiento bracing)

- No lifting > weight of coffee cup
- Upright posture at all times, maintain sling use or collar and cuff as needed
 Elbow should be unsupported as much as possible
- Swelling control (with stocking)
- TID HEP: elbow, wrist, finger A/AAROM. No shoulder ROM
 - Biceps and triceps isometrics

Phase 2: Week 2-6

- No lifting > weight of coffee cup
- Wean from sling to allow gravity to align the arm (OK for collar and cuff), continue upright posture
- BID tightening of fracture brace
- daily hygiene and skin checks in pendulum position
- Continue TID HEP: A/AAROM elbow, wrist and finger motion, biceps and triceps isometrics
- Start shoulder periscapular isometrics / shoulder posture
 - No shoulder ROM other than pendulums for hygiene

Phase 3: Week 6-12 weeks (following clinical fracture healing)

- No lifting > 5# at the side, or coffee cup overhead
- Add TID HEP shoulder 4 quadrant AAROM as tolerated with brace on unless pain free
 - Pulleys, table slides, wall climbs, supine wand exercises in all planes

Phase 4: Appx Week 10-14 weeks (following clinical fracture healing)

- Add shoulder AROM, PROM as tolerated
- Generalized UE strengthening
- Activities as tolerated (if bony healing complete)
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment





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Humeral Shaft Fracture – ORIF

Three times per day home exercise program including:

Phase 1: Week 0-6

- Sling as needed for comfort, wean as able
- Elbow, wrist, finger A/AA/PROM
- Shoulder 4-quadrant AAROM
 - o OK for wall climbs, table slides, pulleys, supine wand exercises all planes
- Rhomboid and periscapular isometrics, posture exercises
- Weight bear as tolerated for ambulation
 - No lifting > coffee cup overhead

Phase 2: Week 6-12 weeks (following clinical fracture healing)

- Discontinue sling altogether
- Phase I and II rotator cuff strengthening as tolerated
- Periscapular, complete extremity, core strengthening
- No lifting >5# overhead

Phase 3: Week 12-16

- Activities as tolerated
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment





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Distal Humerus Fracture – ORIF

Three times per day home exercise program:

Goal: Avoid fracture displacement but obtain max ROM by 3 months post-operatively Phase 1: Week 0-6

Sling as needed for comfort

- Edema control:
 - Compressive stocking
 - Elevate above heart on pillows while supine
- TID finger, wrist, forearm pronation / supination A/AA/PROM
- TID elbow motion
 - o If olecranon osteotomy: A/AAROM flexion, P/AAROM gravity assisted extension
 - o If NO olecranon osteotomy: Active, Active assist, gentle PROM flexion and extension
- Avoid varus force at the elbow
 - Keep elbow tucked at the side for all activities
 - \circ Avoid holding the elbow out and away from the body (abduction at the shoulder)
- Rhomboid and periscapular isometrics, posture exercises, pendulum hangs
- No lifting > coffee cup

Phase 2: Week 6-12 weeks

- Discontinue sling altogether
- Advance to more aggressive elbow AAROM, PROM static progressive stretches (no restrictions)
 Static progressive splinting if needed
 - Add 4 guadrant shoulder A/AA/PROM as tolerated
- No lifting >5# at the side or >coffee cup overhead

Phase 3: Week 12-24 weeks

- Activities as tolerated
- Generalized unrestricted strengthening
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/distalhumerus/

*If ROM is not full (or at least 30-130°) by 3 months post-operative, the patient may benefit from manipulation under anesthesia. If this is a risk for not meeting this goal please contact Dr. Myeroff's office, consider dynamic progressive splinting, and educate the patient on the importance of urgent gains.



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Medial Epicondyle Fracture – Non-Operative

Three times per day home exercise program:

Phase 1: 0-2 weeks

- Edema control:
 - Compressive stocking, Elevate above heart on pillows while supine
 - o Icing 20min per hour
 - TID finger ROM
- Precautions
 - No lifting >coffee cup
 - Long arm split 0-2 weeks.
 - Transition into removable wrist brace by 2 weeks

Phase 2: 2-6 weeks

- Generalized flexor-pronator, mobile wad, wrist stretching
- TID: AA/PROM elbow, wrist. A/AA/PROM fingers
- Precautions
 - No lifting >coffee cup
 - Removable wrist brace full time except for TID ROM exercises and hygiene. (flexorpronator protection)

Phase 3: 6-12 weeks

- Advance to unrestricted A/AA/PROM flexor-pronator, mobile wad, wrist stretching
 - o Begin gentle strengthening after fracture healing (8 weeks)
- Eval and treat with additional modalities as indicated
 - OK for putty, desensitization
- Precautions
 - NO resisted wrist flexion or pronation >2#
 - avoid functional valgus (throwing / racquet sport) until fracture healing appx 8 wks
 - \circ $\;$ Wean from wrist brace, except for work and dangerous activities $\;$

Phase 4: 12-18 weeks

- Generalized strengthening, Activities as tolerated
- Independent home exercise program, unrestricted strengthening
 - o Begin return to throwing program for throwers
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/distalhumerus/

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Medial Epicondyle Fracture – ORIF

Three times per day home exercise program:

- Phase 1: 0-6 weeks
 - Edema control:
 - Compressive stocking
 - Elevate above heart on pillows while supine
 - Icing 20min per hour
 - A/AA/PROM elbow, wrist fingers TID
 - Precautions
 - No lifting >coffee cup
 - NO resisted wrist flexion or pronation, avoid functional valgus (throwing / racquet sport)
 - Use wrist brace full time except for ROM exercises and hygiene. (flexor-pronator protection)

Phase 2: 6-12 weeks

- Generalized flexor-pronator, mobile wad, wrist stretching
 - o Begin gentle strengthening after fracture healing (6-8 weeks)
- Eval and treat with additional modalities as indicated
 - OK for putty, desensitization
- Precautions
 - No lifting >5#
 - NO resisted wrist flexion or pronation >2#
 - o avoid functional valgus (throwing / racquet sport) until fracture healing appx 8 wks
 - Wean from wrist brace
 - Except for work and dangerous activities

Phase 2: 12-18 weeks

- Generalized strengthening, Activities as tolerated
- Independent home exercise program, unrestricted strengthening
 - o Begin return to throwing program for throwers
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/distalhumerus/



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Olecranon Fracture – Non-Operative

Three times per day home exercise program:

Goal: Avoid fracture displacement but obtain max ROM by 3 months post-operatively

Phase 1: Week 0-2

- Long arm splint in 45-60° of extension
- Sling full time except for TID finger range of motion, axillary cares, pendulum hangs
- Edema control: Elevate above heart on pillows while supine

Phase 2: Week 2-6

- Sling as needed for comfort
- Edema control:
 - Compressive stocking
 - Elevate above heart on pillows while supine
- TID finger, wrist, forearm (pronation / supination) A/AA/PROM
- TID elbow motion
 - o A/AAROM elbow flexion, P/AAROM gravity assisted elbow extension (triceps protection)
- Rhomboid and periscapular isometrics, posture exercises, pendulum hangs
- No lifting > coffee cup. No elbow extension against resistance (pushing)

Phase 3: Week 6-12 weeks

- Wean from sling
- Add elbow AAROM
- Add biceps and triceps isometrics
- No elbow extension against resistance (pushing)

Phase 4: Week 12+

- Advance to more aggressive elbow A/AA/PROM
- Add 4 quadrant shoulder A/AA/PROM as needed
- Strengthening as tolerated, Activities as tolerated
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/olecranon/



*If ROM is not full (or at least 30-130°) by 3 months post-operative, the patient may benefit from manipulation under anesthesia. If this is a risk for not meeting this goal please contact Dr. Myeroff's office, consider dynamic progressive splinting, and educate the patient on the importance of urgent gains.



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Olecranon Fracture – ORIF

Three times per day home exercise program:

Goal: Avoid fracture displacement but obtain max ROM by 3 months post-operatively Phase 1: Week 0-6

Sling as needed for comfort

- Edema control:
 - Compressive stocking
 - Elevate above heart on pillows while supine
- TID finger, wrist, forearm (pronation / supination) A/AA/PROM
- TID elbow motion
 - A/AAROM elbow flexion, P/AAROM gravity assisted elbow extension
- Rhomboid and periscapular isometrics, posture exercises, pendulum hangs
- No lifting > coffee cup
- No elbow extension against resistance (pushing)

Phase 2: Week 6-12 weeks

- Discontinue sling altogether
- Advance to more aggressive elbow A/AA/PROM
- Add 4 quadrant shoulder A/AA/PROM as needed
- No lifting >5# at the side or >coffee cup overhead

Phase 3: Week 12-16 weeks

- Activities as tolerated
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/olecranon/

*If ROM is not full (or at least 30-130°) by 3 months post-operative, the patient may benefit from manipulation under anesthesia. If this is a risk for not meeting this goal please contact Dr. Myeroff's office, consider dynamic progressive splinting, and educate the patient on the importance of urgent gains.



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Radial Head Fracture – Non-operative

Three times per day home exercise program:

Goal: obtain full motion while protecting the bones and ligaments while they heal

Phase 1: Week 0-6

- Sling for 0-2 weeks
 - *No splint recommended
 - OK to use sling up to 6 weeks sparingly at work or in dangerous situations only
- Edema control:
 - OT or clinic provided compressive stocking
 - Elevate above heart on pillows while supine
- TID finger, wrist, forearm elbow A/AA/PROM with the elbow tucked at the side:
 - Elbow Flexion
 - Extension (with the forearm in pronation)
 - \circ Pronation / Supination with the elbow flexed to 90°
- Rhomboid, periscapular, biceps/triceps isometrics, posture exercises, pendulum hangs
- No lifting > coffee cup

Phase 2: Week 6-12 weeks

- Wean from sling entirely
- Add 4 quadrant shoulder A/AA/PROM as needed
- Static progressive splinting OK if needed once fracture healed

Phase 3: Week 12-16 weeks

- Generalized strengthening. Activities as tolerated (if ROM adequate and healed)
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/radialhead/







Radial Head Fracture – Operative (ORIF / Arthroplasty)

Three times per day home exercise program:

Goal: obtain full motion while protecting the bones and ligaments while they heal

Phase 1: Week 0-6

- Sling x 6 weeks except for hygiene and TID therapy
 - Post-operative splint with forearm in 60° supination x 0-2 weeks
 - Followed by OT custom night splint only (90°flexion, 60° supination)
- Edema control:
 - OT or clinic provided compressive stocking
 - Elevate above heart on pillows while supine
- TID finger, wrist ROM
- TID elbow A/AA/gentle PROM with the elbow tucked at the side:
 - o Flexion
 - Extension (with the forearm in pronation)
 - Pronation / Supination with the elbow flexed to 90°
- Rhomboid and periscapular isometrics, posture exercises, pendulum hangs
- LUCL Protection Precautions
 - Avoid varus force at the elbow
 - Keep elbow tucked at the side of the body for all activities
 - Avoid holding the elbow out and away from the body (active abduction or FF at the shoulder)
 - Avoid supination while elbow is in extension
 - No lifting > coffee cup

Phase 2: Week 6-12 weeks

- Wean from sling and night splint
- Add 4 quadrant shoulder A/AA/PROM as needed
- Advance aggression on TID elbow wrist finger A/AA/PROM (focusing on supination at 90°)
 - Static progressive splinting OK if needed
- Continue above precautions

Phase 3: Week 12-16 weeks

- Add generalized strengthening. Activities as tolerated (if ROM adequate and healed)
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/radialhead/







Terrible Triad Fracture Dislocation – ORIF

Three times per day home exercise program:

Goal: obtain full motion while protecting the lateral elbow ligament while it heals

Phase 1: Week 0-6

- Sling x 6 weeks except for hygiene and TID therapy
 - Post-operative splint with forearm in 60° supination x 0-2 weeks
 - Followed by OT custom night splint (90°flexion, 60° supination)
- Edema control:
 - OT or clinic provided compressive stocking
 - o Elevate above heart on pillows while supine
- TID finger, wrist ROM
- TID elbow A/AA/gentle PROM with the elbow tucked at the side:
 - o Flexion
 - Extension (with the forearm in pronation)
 - \circ $\,$ Pronation / Supination with the elbow flexed to 90° $\,$
- Rhomboid and periscapular isometrics, posture exercises, pendulum hangs
- LUCL Protection Precautions
 - Avoid varus force at the elbow
 - Keep elbow tucked at the side of the body for all activities
 - Avoid holding the elbow out and away from the body (active abduction or FF at the shoulder)
 - Avoid supination while elbow is in extension
 - No lifting > coffee cup

Phase 2: Week 6-12 weeks

- Wean from sling and night splint
- Add 4 quadrant shoulder A/AA/PROM as needed
- Advance aggression on TID elbow wrist finger A/AA/PROM (focusing on supination at 90°)
 - $\circ \quad \mbox{Static progressive splinting OK if needed}$
- Continue above precautions

Phase 3: Week 12-16 weeks

- Add generalized strengthening. Activities as tolerated (if ROM adequate and healed)
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/terribletriad/



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Coronoid (isolated anteromedial facet) Fracture Dislocation - ORIF

Three times per day home exercise program: Goal: obtain full motion while protecting fracture

Phase 1: Week 0-6

- Sling x 6 weeks except for hygiene and TID therapy
 - Post-operative splint with forearm in 60° supination x 0-2 weeks
- Edema control:
 - OT or clinic provided compressive stocking
 - Elevate above heart on pillows while supine
- TID finger, wrist ROM
- TID elbow and forearm A/AA/gentle PROM with the elbow tucked at the side:
- Rhomboid and periscapular isometrics, posture exercises, pendulum hangs
- Anteromedial Facet coronoid Protection Precautions
 - \circ $\;$ Avoid varus force at the elbow
 - Keep elbow tucked at the side of the body for all activities
 - Avoid holding the elbow out and away from the body (active abduction or FF at the shoulder)
 - No lifting > coffee cup

Phase 2: Week 6-12 weeks

- Wean from sling and night splint
- Add 4 quadrant shoulder A/AA/PROM as needed
- Advance aggression on TID elbow wrist finger A/AA/PROM (focusing on supination at 90°)
 - Static progressive splinting OK if needed
- Continue above precautions

Phase 3: Week 12-16 weeks

- Add generalized strengthening. Activities as tolerated (if ROM adequate and healed)
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/terribletriad/



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Elbow Dislocation – Operative and Non-operative

Three times per day home exercise program:

Goal: obtain full motion while protecting the elbow ligaments while they heal

Phase 1: Week 0-6

- Splint for 0-2 weeks
- Sling x 6 weeks as needed except for hygiene and TID therapy
- Edema control:
 - OT or clinic provided compressive stocking
 - Elevate above heart on pillows while supine
- TID finger, wrist, forearm elbow A/AAROM with the elbow tucked at the side:
 - o Elbow Flexion
 - Extension (with the forearm in pronation)
 - Pronation / Supination with the elbow flexed to 90°
- Rhomboid, periscapular, biceps/triceps isometrics, posture exercises, pendulum hangs
- Lateral ligament precautions:
 - \circ $\;$ Avoid varus force at the elbow
 - Keep elbow tucked at the side of the body for all activities
 - Avoid holding the elbow out and away from the body (active abduction or FF at the shoulder)
 - Avoid supination while elbow is in extension
 - No lifting > coffee cup

Phase 2: Week 6-12 weeks

- Wean from sling entirely
- Add 4 quadrant shoulder A/AA/PROM as needed
- Add elbow and forearm PROM
 - Static progressive splinting OK if needed
- Add wrist, forearm and elbow gentle strengthening
- Continue above precautions (especially avoiding varus at the elbow)

Phase 3: Week 12-16 weeks

- Generalized strengthening. Activities as tolerated (if ROM adequate and healed)
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/elbowdislocation/



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Lateral Ulnar Collateral Ligament (LUCL) - Reconstruction or Repair

Three times per day home exercise program:

Goal: obtain full motion while protecting the elbow ligaments while they heal

Phase 1: Week 0-6

- Splint for 0-2 weeks
- Sling x 6 weeks as needed except for hygiene and TID therapy
- Edema control:
 - OT or clinic provided compressive stocking
 - Elevate above heart on pillows while supine
- TID finger, wrist, forearm elbow A/AAROM with the elbow tucked at the side:
 - o Elbow Flexion
 - Extension (with the forearm in pronation)
 - \circ $\,$ Pronation / Supination with the elbow flexed to 90° $\,$
- Rhomboid and periscapular isometrics, posture exercises, pendulum hangs
- Biceps and Triceps isometrics with the elbow at 90° flexion
- Precautions
 - Avoid varus force at the elbow
 - Keep elbow tucked at the side of the body for all activities
 - Avoid holding the elbow out and away from the body (active abduction or FF at the shoulder)
 - o Avoid supination while elbow is in extension
 - No lifting > coffee cup

Phase 2: Week 6-12 weeks

- Wean from sling entirely
- Add 4 quadrant shoulder A/AA/PROM as needed
- Add elbow and forearm PROM
- Add wrist, forearm and elbow gentle strengthening
- Continue above precautions (especially avoiding varus at the elbow)

Phase 3: Week 12-16 weeks

- Generalized strengthening, activities as tolerated (if ROM adequate)
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/PLRI/



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Ulnar Collateral Ligament (UCL) - Non-Operative

Three times per day home exercise program:

Goals:

- 1) Obtain ROM while ligament "heals"
- 2) Wrist, forearm, core strengthening
- 3) Return to competitive sport

Phase 1: Week 0-6

- Splint for 0-2 weeks
- Sling x 6 weeks as needed except for hygiene and TID elbow wrist and finger ROM
- Edema control:
 - OT or clinic provided compressive stocking
 - Elevate above heart on pillows while supine
- TID finger, wrist, forearm elbow A/AAROM
- Rhomboid, periscapular, biceps/triceps isometrics, posture exercises, pendulum hangs
- Once pain resolved, add grip, flexor pronator and mobile wad light strengthening
- Precautions
 - Avoid functional valgus (no pushing or throwing)
 - No lifting > coffee cup

Phase 2: Week 6-12 weeks

- Begin if patient is asymptomatic to functional valgus (moving valgus stress test)
- Add 4 quadrant shoulder A/AA/PROM as needed
- Add elbow and forearm PROM
- Add wrist, forearm and elbow progressive strengthening
 - Additional focus on flexor pronators
- Precautions
 - \circ $\;$ Avoid functional valgus (no pushing or throwing) until asymptomatic

Phase 3: Week 12+

- Progressive unrestricted strengthening, core conditioning
- Initiate return to sport / throwing program once asymptomatic and strengthening complete
 - Goal return to competition at 3-4 months

More info: twincitiesshoulderandelbow.com/tommyjohn/



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Ulnar Collateral Ligament (UCL) - Tommy John Reconstruction

Three times per day home exercise program:

Goals:

- 1. Obtain ROM while protecting repair
- 2. Wrist and forearm strengthening
- 3. Return to competitive sport

Phase 1: Week 0-6

- Splint for 0-2 weeks
- Sling x 6 weeks as needed except for hygiene and TID therapy
- Edema control:
 - OT or clinic provided compressive stocking
 - Elevate above heart on pillows while supine
- TID finger, wrist, forearm elbow A/AAROM
- Rhomboid, periscapular biceps/triceps isometrics, posture exercises, pendulum hangs
- Precautions
 - Avoid functional valgus (no pushing or throwing)
 - No lifting > coffee cup

Phase 2: Week 6-12 weeks

- Add 4 quadrant shoulder A/AA/PROM as needed
- Add elbow and forearm PROM
- Add wrist, forearm and elbow gentle strengthening
 - o Include flexor pronators
- Precautions
 - Avoid functional valgus (no pushing or throwing)
 - No lifting > 5#

Phase 3: Week 12-16 weeks

- Progressive unrestricted strengthening
- Core conditioning
- Initiate return to sport / throwing program at 4 mo post-op
 - o Goal return to competition at 10 months

More info: twincitiesshoulderandelbow.com/tommyjohn/



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Monteggia Fracture Dislocation-ORIF

Three times per day home exercise program:

Goal: Avoid fracture displacement but obtain max ROM by 3 months post-operatively

Phase 1: Week 0-6

- Sling as needed for comfort
 - OT provided night splint only in 90° of flexion and 60° supination.
- Edema control:
 - Compressive stocking
 - o Elevate above heart on pillows while supine
- TID finger, wrist ROM
- TID elbow motion
 - o A/AAROM elbow flexion
 - \circ P/AAROM gravity assisted elbow extension with the forearm in pronation
 - Pronation / Supination with the elbow flexed to 90°
- Rhomboid and periscapular isometrics, posture exercises, pendulum hangs
- Precautions
 - Avoid varus force at the elbow
 - Keep elbow tucked at the side of the body for all activities
 - Avoid holding the elbow out and away from the body (active abduction or FF at the shoulder)
 - Avoid supination while elbow is in extension
 - No lifting > coffee cup, No pushing against resistance

Phase 2: Week 6-12 weeks

- Discontinue sling altogether
- Advance aggression on TID elbow wrist finger A/AA/PROM
 - Static progressive splinting OK if needed
- Add 4 quadrant shoulder A/AA/PROM as needed
- Continue above precautions

Phase 3: Week 12-16 weeks

- Generalized strengthening, activities as tolerated (once ROM is full)
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/olecranon/



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Elbow Release (Arthroscopic or Open)

Three times per day home exercise program:

Phase 0: Same and next day therapy session

- *(while regional block is active)
- Fabricate removable terminal extension night splint (in max extension)
- Therapist assisted unrestricted PROM

Phase 1: 0-12 weeks

- Sling as needed for comfort (wean out completely by 2 weeks)
- Wear extension splint nightly as tolerated
- Edema control:
 - Compressive stocking
 - Elevate above heart on pillows while supine
 - Finger, wrist, forearm, elbow unrestricted A/AA/PROM
 - OK for static progressive splinting as indicated
- Precautions
 - Weight bearing as tolerated

Phase 2: 12-18 weeks

- Discontinue night splint
- Activities as tolerated (if ROM adequate and pain free)
- Independent home exercise program, unrestricted strengthening
 - \circ $\,$ Coaching to work on motion for another 3 months at home.
- Return to high level functional ADLs and simulation of work environment



More info: twincitiesshoulderandelbow.com/elbowstiffness/

*If ROM is not full (or at least 30-130°) by 3 months post-operative, the patient may benefit from manipulation under anesthesia. If this is a risk for not meeting this goal please contact Dr. Myeroff's office, consider dynamic progressive splinting, and educate the patient on the importance of urgent gains.



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Total Elbow Arthroplasty

Three times per day home exercise program:

Prehab: 0-6 weeks pre-operative appointment to establish care and coaching on:

- Set expectations and training on recovery, exercises and restrictions, sling donning and doffing
- Work and home evaluation / modifications including ADLs, hygiene, sleep, equipment

Phase 1: 0-2 weeks

- Sling as needed for comfort (wean out completely by 2 weeks)
- Splint full time for wound protection.
- Edema control:
 - Compressive stocking
 - Elevate above heart on pillows while supine
- Finger ROM exercises, pendulum hangs and axillary cares
- Precautions
 - ***If triceps repaired, avoid resisted elbow extension for 12 weeks
 - Coaching on lifelong lifting restrictions:
 - No more than 2# repetitive or 5# one time weightbearing
 - Avoid varus at the elbow (lifting with the shoulder in abduction)

Phase 2: 2 weeks (initiated once splint removed)

- Wean from sling
- Continue edema control
- Activities as tolerated within above restrictions
- Home exercise program
 - A/AA/Gentle PROM elbow flexion/extension, pronation/supination
 - A/AA/PROM elbow wrist and fingers
 - o Gentle shoulder A/AAROM as needed

More info: twincitiesshoulderandelbow.com/elbowarthritis/



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Lateral Epicondylitis (Tennis Elbow) – Non-Operative

Three times per day home exercise program:

Phase 1: 0-12 weeks

- Generalized flexor-pronator, mobile wad, wrist stretching and strengthening
 - Use a hammer or similar object
- Eval and treat with additional modalities as indicated
 - OK for Iontophoresis, dry needling, acupuncture, desensitization
- Precautions would include avoiding heavy lifting (more than 5 pounds repetitive)
 - Especially avoid heavy resisted wrist extension and supination
 - Elbow strap as needed
 - Use wrist brace
 - Most of the day while active
 - Especially during any high demand activities
 - Remove for hygiene, therapy, sleep
- Couple this period of treatment with an anti-inflammatory protocol if medically tolerable:
 - Scheduled ibuprofen (600mg TID) if not contraindicated
 - Ice massage for 30 minutes 3 times per day over the lateral epicondyle
 - Optional nitroglycerine patches daily to the lateral epicondyle if prescribed

Phase 2: 12-24 weeks

- Wean from wrist brace except for when lifting >5#
- Generalized UE strengthening
- Activities as tolerated (if ROM adequate and pain free)
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment
- Return to Dr. Myeroff for consideration of PRP injection, TENEX or surgery if still symptomatic

More info: twincitiesshoulderandelbow.com/tenniselbow/



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Lateral Epicondylitis (Tennis Elbow) – Operative

Three times per day home exercise program:

Phase 1: 0-6 weeks

- Gentle flexor-pronator, mobile wad, wrist stretching
- Edema control:
 - Compressive stocking
 - Elevate above heart on pillows while supine
- Precautions
 - No lifting >coffee cup
 - NO resisted wrist extension and supination
 - o Use wrist brace full time except for hygiene exercises ROM exercises
- Scheduled icing 30 minutes 3 times per day over the lateral epicondyle
 - Transition to ice massage starting at 2 weeks once wound is healed

Phase 2: 6-12 weeks

- Wean from wrist brace except for work and household activities
- Generalized flexor-pronator, mobile wad, wrist stretching and strengthening
 - Use a hammer or similar object
- Eval and treat with additional modalities as indicated
 - o OK for lontophoresis, dry needling, acupuncture, desensitization
- Precautions
 - No lifting >5#
 - NO resisted wrist extension and supination >2#
 - Wean from wrist brace
 - Except for work and household activities
 - Remove for hygiene, ROM exercises, sleep

Phase 2: 12-18 weeks

- Generalized strengthening, activities as tolerated.
- Independent home exercise program, unrestricted strengthening
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/tenniselbow/



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Medial Epicondylitis (Golfer's Elbow) – Non-Operative

Three times per day home exercise program:

Phase 1: 0-12 weeks

- Generalized flexor-pronator, mobile wad, wrist stretching and strengthening
 - Use a hammer or similar object
- Eval and treat with additional modalities as indicated
 - OK for lontophoresis, dry needling, acupuncture, desensitization
- Precautions would include avoiding heavy lifting (more than 5 pounds repetitive)
 - o Especially avoid heavy resisted wrist flexion and pronation
 - OK for elbow strap as needed
 - Use wrist brace
 - Most of the day while active
 - Especially during any high demand activities
 - Remove for hygiene, therapy, sleep
- Couple this period of treatment with an anti-inflammatory protocol if medically tolerable:
 - Scheduled ibuprofen (600mg TID) if not contraindicated
 - Ice massage for 30 minutes 3 times per day over the lateral epicondyle
 - Optional nitroglycerine patches daily to the lateral epicondyle if prescribed

Phase 2: 12-24 weeks

- Wean from wrist brace except for when lifting >5#
- Generalized UE strengthening
- Activities as tolerated (if ROM adequate and pain free)
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment
- Return to Dr. Myeroff for consideration of PRP injection, TENEX or surgery if still symptomatic



More info: twincitiesshoulderandelbow.com/golferselbow/



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Medial Epicondylitis (Golfer's Elbow) – Operative

Three times per day home exercise program:

Phase 1: 0-6 weeks

- Edema control:
 - Compressive stocking
 - Elevate above heart on pillows while supine
- Gentle flexor-pronator, mobile wad, wrist stretching
- Precautions
 - No lifting >coffee cup
 - \circ NO resisted wrist flexion or pronation
 - Use wrist brace full time except for hygiene exercises ROM exercises
- Scheduled icing 30 minutes 3 times per day over the medial epicondyle
 - Transition to ice massage starting at 2 weeks once wound is healed

Phase 2: 6-12 weeks

- Wean from wrist brace except for work and household activities
- Generalized flexor-pronator, mobile wad, wrist stretching and strengthening
 - Use a hammer or similar object
- Eval and treat with additional modalities as indicated
 - o OK for lontophoresis, dry needling, acupuncture, desensitization
- Precautions
 - No lifting >5#
 - NO resisted wrist flexion or pronation >2#
 - Wean from wrist brace
 - Except for work and household activities
 - Remove for hygiene, ROM exercises, sleep

Phase 2: 12-18 weeks

- Generalized strengthening, Activities as tolerated.
- Independent home exercise program, unrestricted strengthening
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/golferselbow/



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Distal Biceps Tendonopathy – Non-operative

Three times per day home exercise program:

Phase 1: 0-2 weeks

- Splint or complete rest 0-2 weeks
- Decrease inflammation
 - Avoid resisted flexion while painful
 - TID icing, scheduled anti-inflammatories:
 - Compressive stocking
 - Elevate above heart on pillows while supine
 - o Modalities as indicated including iontophoresis

Phase 2: 2-6 weeks

- Wean from all splints and braces
- Continue anti-inflammatory modalities
- TID Finger, wrist, forearm A/AA/PROM
- Initiate elbow AA/PROM flexion and A/AA Extension ROM as pain resolves
- Precautions
 - No lifting >coffee cup, avoid resisted supination

Phase 3: 6-12 weeks (begin once painless)

- Continue anti-inflammatory modalities
- Unrestricted A/AA/PROM elbow, wrist, forearm and fingers
- Progressive unrestricted finger wrist forearm strengthening
- Eccentric biceps strengthening introduced as pain resolves
 - Progressive biceps and triceps strengthening 8+ weeks
- Precautions
 - No lifting >5#
 - Avoid strenuous elbow flexion or supination

Phase 3: 12-18 weeks

- Generalized unrestricted strengthening, activities as tolerated (if ROM adequate and pain free)
- Independent home exercise program, unrestricted strengthening
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/distalbiceps/

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Distal Biceps Repair

Three times per day home exercise program:

Phase 1: 0-2 weeks

- Splint 0-2 weeks
- Edema control:
 - Compressive stocking
 - Elevate above heart on pillows while supine

Phase 2: 2-12 weeks

- Edema control
- Finger, wrist, forearm, elbow A/AA/PROM
 - Special focus on passive pronation and supination
- Precautions
 - No lifting >coffee cup
 - NO resisted elbow flexion or supination

Phase 3: 12-18 weeks

- Gentle biceps and triceps strengthening
 - Use a hammer or similar object
- Generalized strengthening, activities as tolerated (if ROM adequate and pain free)
- Independent home exercise program, unrestricted strengthening
- Return to high level functional ADLs and simulation of work environment



More info: twincitiesshoulderandelbow.com/distalbiceps/



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Triceps Tendinopathy – Non-operative

Three times per day home exercise program:

Phase 1: 0-2 weeks

- Splint or complete rest 0-2 weeks
- Decrease inflammation
 - Avoid resisted extension while painful
 - TID icing, scheduled anti-inflammatories:
 - Compressive stocking
 - o Elevate above heart on pillows while supine
 - o Modalities as indicated including iontophoresis

Phase 2: 2-6 weeks

- Wean from all splints and braces
- Continue anti-inflammatory modalities
- TID Finger, wrist, forearm A/AA/PROM
- Initiate elbow A/AA flexion and P/AA Extension ROM as pain resolves
- Precautions
 - No lifting >coffee cup
 - No resisted elbow extension (pushing)

Phase 3: 6-12 weeks (begin once painless)

- Continue anti-inflammatory modalities
- Unrestricted A/AA/PROM elbow, wrist and fingers
- Progressive unrestricted finger wrist forearm strengthening
- Eccentric triceps strengthening introduced as pain resolves
 - Progressive biceps and triceps strengthening 8+ weeks

Phase 4: 12+ weeks (or when ready to progress)

- Generalized strengthening, activities as tolerated (if ROM adequate and pain free)
- Independent home exercise program, unrestricted strengthening
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/triceps/







Triceps Repair or Reconstruction

Three times per day home exercise program:

Phase 1: 0-2 weeks

- Splint 0-2 weeks
- Edema control:
 - Compressive stocking
 - Elevate above heart on pillows while supine

Phase 2: 2-12 weeks

- Edema control
- Finger, wrist, forearm A/AA/PROM
- Initiate elbow ROM
 - A/AAROM elbow flexion
 - 0-60° weeks 2-4
 - 0-90° weeks 4-6
 - Unrestricted beyond 6 weeks
 - o Gravity assisted P/AAROM extension (unlimited)
- Precautions
 - No lifting >coffee cup
 - No resisted elbow extension (pushing)

Phase 3: 12-18 weeks

- Unrestricted A/AA/PROM
- Progressive biceps and triceps strengthening
- Generalized strengthening, activities as tolerated (if ROM adequate and pain free)
- Independent home exercise program, unrestricted strengthening
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/triceps/



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Cubital Tunnel Release

Three times per day home exercise program:

Phase 1: 0-2 weeks

- Leave soft dressings in place, or remove after POD#3 and replace with compression sleeve
- Edema control:
 - Compressive stocking
 - Elevate above heart on pillows while supine
- Activities and ROM as tolerated

Phase 2: 2-6 weeks

- Edema control, desensitization, dexterity
- Scar management
- Finger, wrist, forearm, elbow A/AA/PROM
- Progressive strengthening
- Activities and ROM as tolerated



More info: twincitiesshoulderandelbow.com/cubitaltunnel/



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Olecranon Bursectomy (or aspiration)

Three times per day home exercise program:

Phase 1: 0-2 weeks

- Long arm posterior splint left in place for 2 weeks
- Edema control:
 - Elevate above heart on pillows while supine
 - TID Finger ROM
- WBAT

Phase 2: 2-6 weeks

- Custom removable long arm splint in 45° flexion (ie orthoplast or orthoglass)
 - Worn full time except hygiene and skin checks
- Edema control
 - o Compressive elastic stocking / sleeve full time except hygiene and skin checks
 - Elevate above heart on pillows while supine
 - TID Finger ROM
- Scar management
- Finger, wrist, forearm A/AA/PROM

Phase 3: 6+

- Progressive gentle A/AA/PROM, strengthening as needed
- Continue compressive sleeve up to 12 weeks
- Activities and ROM as tolerated







Forearm Fracture – ORIF

Three times per day home exercise program:

Phase 1: Week 0-6

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- Sling as needed for comfort x 2 weeks, then wean from sling
- Edema control:
 - Compressive stocking
 - Elevate above heart on pillows while supine
 - TID finger, wrist, forearm, elbow pronation / supination A/AA/PROM
 - Consider OT provided removable night splint in 60° supination
- Rhomboid and periscapular isometrics, posture exercises, pendulum hangs
- No lifting > 5#, no pushing or pulling against resistance

Phase 2: Week 6-12 weeks

- Advance to more aggressive elbow A/AA/PROM
- Add 4 quadrant shoulder A/AA/PROM as needed
- No lifting >10#

Phase 3: Week 12-16 weeks

- Generalized strengthening, activities as tolerated
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment









Distal Radius Fracture – Non-op

Three times per day home exercise program:

Phase 1: Week 0-6

- Sling as needed for comfort
- Edema control:
 - Elevate above heart on pillows while supine
- TID finger, elbow A/AA/PROM
- Rhomboid and periscapular isometrics, posture exercises, pendulum hangs
- Modalities as indicated
- No lifting > coffee cup

Phase 2: Week 6-12 weeks

- Removable wrist brace to be worn as needed
 - Remove for TID therapy and hygiene
- Advance to A/AA/PROM fingers, wrist, forearm and elbow
- Gradual strengthening, putty, isometrics
- Add desensitizing, mirror therapy, dexterity exercises as needed
 - o Modalities as indicated
- Add 4 quadrant shoulder A/AA/PROM as needed
- No lifting >5#

Phase 3: Week 12-16 weeks

- Generalized strengthening, activities as tolerated
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment



More info: twincitiesshoulderandelbow.com/distalradius/



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Distal Radius Fracture – ORIF

Three times per day home exercise program:

Phase 1: Week 0-6

- Sling as needed for comfort
 - o Removable splint x 6 weeks except for TID HEP and hygiene
- Edema control:
 - Elevate above heart on pillows while supine
- TID A/AA/PROM fingers, elbow
- TID A/AAROM wrist and forearm
- Rhomboid and periscapular isometrics, posture exercises, pendulum hangs, shoulder ROM
- Gentle scar massage, silicone pads
- Modalities as indicated
- No lifting > coffee cup

Phase 2: Week 6-12 weeks

- Wean from brace
- Advance to PROM wrist and forearm
- Gradual strengthening, putty, isometrics
- Continue scar massage, silicone pads
- Add desensitizing, mirror therapy, dexterity exercises as needed
 - o Modalities as indicated
- No lifting >5#

Phase 3: Week 12-16 weeks

- Generalized strengthening, activities as tolerated
- Independent home exercise program
- Return to high level functional ADLs and simulation of work environment

More info: twincitiesshoulderandelbow.com/distalradius/



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Finger Range of Motion Diagram





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Elbow Elevation Technique Diagram





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Standard Elbow Range of Motion Diagram





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LUCL Protection Elbow Range of Motion Diagram





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