ORTHOPEDICS & SPORTS MEDICINE
BAYCARE CLINIC

Dr. Chad Zehms

Shoulder Labral Repair and/or Biceps Tenodesis

Phase 1 – Maximum Protection Phase (0-6 weeks)

Goals for Phase 1

- Protect integrity of repair
- Minimize pain and inflammation
- Prevent negative effects of elbow and wrist mobilization
- Activation of scapular stabilizers

Precautions

- Wear sling at all times outside of the home
- No lifting >5#

Brace

- Wear sling at all times when outside of the home, may remove sling for comfort when in safe, controlled environment

Range of Motion

- Passive range of motion with pendulums 3x/day
- Progress active assisted ROM – dowel, wall walks
  - Progress from supine to standing as symptoms and tissue restriction allows

Strengthening

- Scapular strengthening - shrugs, protraction, retraction, depression
- Sub maximal shoulder isometrics in all directions
- Wrist and hand active range of motion and isometrics
- No lifting greater than 5#

Aquatics

- May be a candidate for aquatic therapy (to remain below shoulder height)

Modalities

- Vaso pneumatic compression for edema management 2-3x/week
- Cryotherapy at home 3x/day for 20 minutes each

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Phase 2 – Active ROM and Initial Strengthening Phase (6-12 weeks)

Goals for Phase 2

- Protection of surgical repair
- Minimize pain and inflammation
- Restore scapular strength and proprioception

Precautions

- Avoid overhead work activities
- Avoid repetitive motions with shoulder
- Do NOT exercise through shoulder shrug sign

Criteria for Progression to Phase 3

- Minimal pain with Phase 2 exercises
- Adequate shoulder range of motion
- Demonstrate neuro-dynamic stabilization of the shoulder and appropriate scapula-humeral rhythm

Range of Motion

- Continue PROM exercises in all planes as pain and tissue restriction allows

Manual Therapy

- Manual joint mobilization Grades I-II for pain management or Grades III-IV for excessive capsular tightness
- Continue manual scapular and thoracic mobilization as needed

Strengthening

- AAROM exercises with progression to AROM as tolerated
- Progress from gravity-reduced positions to gravity-resisted
- Sub-maximal rhythmic stabilization exercises at 100° of flexion
- Progress to multi-angle rhythmic stabilization exercises as tolerated
- Initiate isotonic strengthening progression for scapular and shoulder musculature. Examples:
  - Serratus press outs
  - Prone row
  - Prone extension
  - Prone horizontal extension
  - External rotation
  - D1/D2 patterns
- Initiate sub-body weight closed kinetic chain exercise (i.e. wall lift offs, wall push-ups, etc.)

Aquatics

- Continue aquatic-based therapy, namely for painful or guarded patients

Modalities

- NMES if needed to promote scapula-humeral rhythm and strength
- Cryotherapy after activity

Phase 3 – Strengthening Focused Phase (12-16 weeks)

Goals for Phase 3

- Progress ROM to 85% total arc of motion of contralateral arm
- Improve stability, strength, and endurance of shoulder and scapular stabilizers

Precautions

- No overhead swimming for 16 weeks
- Lifting restriction of 15# until week 14
- Avoid throwing until appropriate criteria are met after week 16

Criteria for Progression to Phase 4

- Minimal pain with Phase 3 exercises
- AROM 85% total arc of motion of contralateral arm
- MMT ≥4/5 with shoulder and scapular testing
- Demonstrate neuro-dynamic stabilization of the shoulder and appropriate scapula-humeral rhythm

Manual Therapy

- Continue manual joint mobilizations Grades I-II for pain management or Grades III-IV for excessive capsular tightness as needed – limit aggressive mobilization of posterior capsule
- Continue manual scapular and thoracic mobilization as needed

Strengthening

- AROM exercises within full range against gravity
- Multi-angle rhythmic stabilization exercises
- Continue isotonic strengthening for scapular and rotator cuff musculature with emphasis on posterior cuff strengthening
- Progress elevation from below to above shoulder height
- Progress shoulder IR and ER from 30° to 60° to 90° abduction and from a supported to unsupported condition
- Thrower's Ten Program
- Progress sub-body weight closed kinetic chain exercise
- Progress to full body weight exercises
- Progress from stable surfaces to unstable surfaces (foam, physioball, BOSU, etc.)
- Initiate gradual progression of neuromuscular control exercises (ball on wall, body blade, ball flips, plyoback, etc.)

Aquatics

- Continue aquatic-based therapy as needed

Neuromuscular Control

- Initiate gradual progression of neuromuscular control exercises (ball on wall, body blade, ball flips, plyoback, etc.)

Modalities

- Cryotherapy after activity

Phase 4 – Advanced Strengthening and Plyometric Phase (16-24 weeks)

Goals for Phase 4

- Restore shoulder, scapular, and total arm strength, power, and endurance
- Initiate upper extremity plyometrics
- Sport or work specific tasks

Strengthening

- Continue isotonic strengthening with transition to primarily overhead strengthening
- Gradual progression of sub-body weight suspension training exercises (TRX, assisted chin or dip machine, etc.)
- Initiate traditional weightlifting exercises with emphasis on musculature balance of rotator cuff, back, and chest
- Initiate sport specific interval training programs (throwing, hitting, or lifting) – no earlier than 5 months
- Transition to work specialty program if physical laborer

Neuromuscular Control

- Continue neuromuscular control exercises (ball on wall, body blade, ball flips, bounce-back plyo tosses, hops and lifts, etc.)
- Begin working on activity specific mechanics (throwing positions, hitting positions)
- Light tennis ball toss at short distances, progress toward interval throwing program after 5 months as criteria are met (see below).

Modalities

- Cryotherapy after activity

*For throwing athletes: Perform functional testing. If test is passed begin interval throwing program (no earlier than 5 months). Re-test monthly until passed.

- Total rotational range of motion within 5° of non-throwing shoulder
- Full non-painful range of motion
- Prone ball drop test ≥100% of non-throwing side
- ER/IR ratio: ≥70% on throwing arm with isokinetic testing
- Throwing shoulder ER ≥95% of non-throwing shoulder

Return to Function Testing: Aurora BayCare return to function for the upper extremity protocol to be used

- **Week 24:** **Return to function testing** per MD approval. Appointment must be scheduled with Aurora BayCare Sports Physical Therapy at the 1110 Kepler location. Please contact physician office if unable to make this arrangement for alternative testing.
- **Criteria:** Pain-free, full, pain-free shoulder range of motion, DASH ≤10% disability, and satisfactory isokinetic strength and functional testing.
- No less than 5 months post-op for return to contact sports

This protocol was reviewed and updated by Chad Zehms, MD and Katelyn Peterson, PT, DPT on November 10, 2025.