

# Sports & Orthopaedic Specialists

## Distal Biceps Repair Protocol

This protocol provides appropriate guidelines for the rehabilitation of patients after distal biceps repair. The protocol draws evidence from the current literature and accounts for preferences of the providers at Sports & Orthopaedic Specialists. The program may be modified by the referring provider for an individual patient. If questions arise regarding the utilization of the protocol or the progress of the patient, contact Sports & Orthopaedic Specialists:

Main line: (952) 946-9777

Physical therapy: (952) 914-8631

### PRECAUTIONS

- No elbow flexion against gravity until **6 weeks** postop.
- No elbow flexion or supination against resistance until **12 weeks** postop.

### PT FREQUENCY & DURATION

- Eight to ten physical therapy visits over 4-5 months
- Begin physical therapy **4+** weeks after surgery or as instructed by surgeon

### REHAB PRINCIPLES

-Focus on active engagement of the patient through patient education and therapeutic exercise. Establish a home exercise program that can be progressed gradually throughout the postoperative period.

-Respect tissue healing. The surgeons at Sports & Orthopaedic Specialists uniformly prefer a slow progression of postop patients with minimal postoperative pain.

-Postoperative pain may be experienced. However physical therapy, including the home exercise program, should result in minimal to no symptom exacerbation. The patient should call the PT for recommendations if pain increases during or after exercise.

-The therapeutic exercises listed in this protocol convey the appropriate load for the elbow given the time elapsed since surgery in regards to tissue healing. It is acceptable for a patient to progress more slowly. However, it is not acceptable for a patient to progress more quickly unless directly indicated by the surgeon.

-Recommended max of 6 exercises for home exercise program. Select a well-rounded program that targets each area of insufficiency identified during physical exam.

### MODALITIES

Cold Therapy / Ice: Instruct patient to use ice daily until pain free or 8 weeks after surgery.

Other Modalities: **DO NOT USE**

## DISTAL BICEPS REPAIR PROTOCOL



### MANUAL THERAPY

- No** passive range of motion (physiologic/long arc).
- No** joint mobilization of elbow
- Joint mobilization to address shoulder hypomobility **after 12 weeks ONLY if prescribed by surgeon**
- Soft tissue techniques to upper trapezius/levator scapula/pect minor are permitted

### THERAPEUTIC ACTIVITY AND PATIENT EDUCATION

Patient education is very important in getting the patient to take an active role in therapy and recovery. Educate the patient at the appropriate level regarding:

- Anatomy of the elbow
- Influence of shoulder on elbow mechanics
- Basics of surgical procedure in layman's terms
- Surgical precautions
- Avoidance of pain provoking activities

### THERAPEUTIC EXERCISE

-**Free Weights:** Use the following age guidelines to establish a maximum weight for rotator cuff strength/conditioning ONLY when the protocol calls for the use of free weights.

**For patients over 60 years old:**

No external weights for rotator cuff strength/conditioning (Ex: Side lying external rotation, full can)

**For patients aged 40-60:**

Progress from two ounces to four, then a max of eight ounces for rotator cuff strength/conditioning.

**For patients under 40 years old:**

Progress from two ounces to four, then eight ounces. A max of 16 ounces can be used for rotator cuff strength/conditioning.

**Exercise Band: DO NOT USE**

The use of Yellow Theraband®, the least resistive color in the Theraband series, results in 2.9 pounds of resistance when elongated by 100%. In addition, length-tension principles of muscle function do not align with exercise band properties; the muscle is asked to provide maximum force at a shortened and inefficient length. Therefore, exercise band use is not permitted for use during rotator cuff conditioning.

**Pulleys: DO NOT USE**

## DISTAL BICEPS REPAIR PROTOCOL



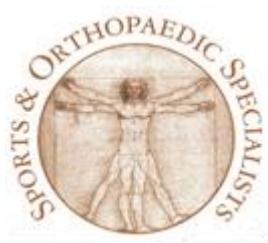
### WEEK 0-3:

- Patient receives postop instructions after surgery that include:
- Continuous wear of sling and/or hinged elbow brace locked at 90 degrees elbow flexion as instructed by surgeon. Sling/brace may be removed to shower & dress.
- Application of ice daily.
- Ok to drive once off narcotic pain medication. Check with auto insurance regarding driving in sling/brace.
- Complete exercises with elbow brace on:
  - Pendulum exercise
  - Gentle AROM of wrist and hand with forearm supported

### WEEK 4-5:

- Ongoing use of hinged elbow brace unlocked from 45-120 degrees. Remove only for self-care and therapy.
- Begin physical therapy.
- Educate the patient regarding:
  - Ongoing adherence to postop precautions. No elbow flexion against gravity until 6 weeks postop necessitates that the forearm is supported when the brace is off.
- HEP 5-7x/week (up to two days off per week to allow for good/bad days)
- Ice after PT/HEP
- Appropriate exercises (Brace off but support forearm to avoid elbow flexion against gravity):
  - Pendulum exercise
  - Active assisted elbow flexion/extension
  - Gentle AROM of wrist and hand with forearm supported
  - Scap set

## DISTAL BICEPS REPAIR PROTOCOL



### WEEK 6-7:

- Ongoing use of hinged elbow brace unlocked from 0-120. Remove only for self-care and therapy.
- Continue physical therapy.
- Educate the patient regarding:
  - Ongoing adherence to postop precautions.
- HEP 5-7x/week (up to two days off per week to allow for good/bad days)
- Ice after PT/HEP
- Appropriate exercises:

#### ELBOW

- Active elbow flexion/extension. Gentle through available ROM.
- Active pronation/supination. Gentle through available ROM.
- Wrist flexion/extension against gravity

#### SHOULDER

- Supine protraction
- Scap set or table press

### WEEK 8-11:

- Discontinue use of elbow brace
- Continue physical therapy
- Educate the patient regarding:
  - Ongoing adherence to postop precautions
- HEP 3-5x/week
- Appropriate exercises: High rep, low weight free weight program
  - Gentle and pain free resistance exercises for elbow, forearm, wrist (max of 2#)
  - Shoulder strengthening
  - Scapular stabilization



## DISTAL BICEPS REPAIR PROTOCOL

### 3-4 MONTHS:

-Continue physical therapy

-HEP 3-5x/week

-Appropriate exercises: High rep, low weight free weight program

- Pain free resistance exercises for elbow, forearm, wrist (max of 2#)
- Shoulder strengthening
- Scapular stabilization
- Begin task-specific functional training

### 5-6 Months

Return to work / sports as cleared by physician.

### WEIGHT TRAINING

-Return to modified program when rotator cuff strength is 5/5 in all planes and **cleared by physician**.

- Upper body weight training no more than 2x/week
- First do rehab exercises as part of upper body warm up
- Lift appropriate weight for 2-3 sets of 15

#### Acceptable Upper Body Lifts

Biceps                   Curls with free weights, elbows at sides, scap set throughout

Triceps                 Press down with V rope on cable column

                           Bent over kick back with free weights

                           No 'skull crusher' variations

Row                      Seated row with cable column

                           Bent over row with free weights

                           Scap set during pull phase, elbows never behind body

Lat pull downs         Lean slightly back and pull bar to chest

Advise the patient that the following exercises should **NEVER** be completed after rotator cuff repair unless specifically cleared by the physician:

Dips	Incline press	Bench press	Lateral raise
Shrugs	Military press	Pushups	Pect fly

### THROWING

If applicable, begin return to throw program at 6+ months when rotator cuff strength is 5/5 in all planes and **cleared by physician**.

## DISTAL BICEPS REPAIR PROTOCOL

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### COLLISION SPORTS

Six to nine months as **determined by surgeon**.

### YOGA

- Patient may begin a modified yoga practice consisting of non-weight bearing movement patterns when scapular mechanics are good and AROM is pain free and without compensatory shoulder hiking.
- Begin weight bearing postures at five+ months once **cleared by the physician**.
- Instruct that during the sun salutation/chaturanga, the patient should bypass the low plank (downward dog → high plank on knees → hold high plank (while others in class pass through low plank) → upward dog)

### OTHER SPORTS

**When cleared by physician**