Neil Kumar, MD
Sports Medicine

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Elbow OCD OATS Protocol

"As tolerated" should be understood to "perform with safety" for the repair. Pain, swelling, or other undesirable factors are indicators that you are doing too much too soon. If any of these should occur, decrease your activity level and ice your shoulder.

Ice should be applied to the shoulder for 15 to 20 minutes following each exercise, therapy, or training session. While your shoulder remains swollen, icing should also be done separate from exercise sessions at least three times per day.

All times and exercises are to serve as guidelines only. Progression through the protocol should be based upon criteria as opposed to dates listed and will vary depending on each individual patient. Progress should be agreed upon by the patient and his/her team of providers.

Pre-Operative

- ROM (range of motion) – Full, no restrictions
- Therapeutic Exercise - Learn exercises for post op regimen
  - Scapular stabilization
  - Rotator cuff isometrics
  - Pendulums
  - Passive and active elbow ROM
  - Passive and active wrist ROM
  - Grip squeezes
- Modalities - Cryotherapy (Ice) six to eight times per for 15 to 20 minutes each time

- **Goals for Surgery**
  - Educate on proper brace positioning and management

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Post-Operative Phase I: Weeks 0 - 6

- Brace
  - Weeks 0-2: At all times
  - Weeks 2-4: Used for comfort and during sleep
  - Weeks 4-6: DC brace
- ROM
  - Week 0-1: Splint
  - Week 1-2: 0-90^0
  - Week 2-6: full ROM
- Modalities
  - Scar massage
  - NMES (neuromuscular electrical stimulation)
  - HVPC (high volt pulsed current) for swelling reduction
  - Cryotherapy six to eight times per day for 15 to 20 minutes each
- Cardio – UBE (arm bike) without resistance
- Strengthening
  - Start at Week 4
  - Body weight only

Goals for Phase I:
  - Full ROM

Post-Operative Phase II: Weeks 6- 12

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- ROM - Full ROM
- Therapeutic Exercise
  - Low weight, slow progression
  - Progress biceps and triceps strengthening
  - Isotonics within pain-free ROM
- Modalities
  - Scar massage
  - NMES (neuromuscular electrical stimulation)
  - HVPC (high volt pulsed current) for swelling reduction
  - Cryotherapy six to eight times per day for 15 to 20 minutes each
- Proprioception
- Cardio
  - Stationary bike with resistance
  - Week 8 – initiate UBE (arm bike) with resistance

- **Goals for Phase II:**
  - Full ROM
  - Ability to tolerate WB without pain
  - Manual muscle testing 5/5

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Post-Operative Phase III: Weeks 12 – 16

- ROM – Full active ROM
- Therapeutic Exercise – Continue Phase II exercises
  - Progress to full strengthening as tolerated
  - Initiate bench press, pushups, and chest strengthening
  - Light upper body plyometrics including two-hand rebounder toss progressing to one-hand
  - Initiate Thrower's Ten Program
- Modalities
  - Scar massage
  - NMES (neuromuscular electrical stimulation)
  - HVPC (high volt pulsed current) for swelling reduction
- Proprioception – advance as tolerated
- Cardio
  - UBE (arm bike) with increasing resistance

- **Goals for Phase III:**
  - Total ROM $<10^0$ difference
  - Functional Movement Screen <2
  - Isokinetic ER and IR >75% of non-involved side
  - Y-balance <4cm difference
  - Pull-up vs Push-up strength 1:1
  - Seated medicine ball (2kg) throw <10% difference

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Post-Operative Phase IV: After Week 16

Transitional therapy for return to sport activities during this phase with progression based upon patient progress through earlier protocol.

- Initiate overhead weightlifting at 4 months
- Initiate Phase 1 return to throwing at 4 months

Initiate sport specific plyometric activities as tolerated such as:
Baseball/Softball/Overhead/Throwing sports: Two foot ankle hops, double-leg hop, front barrier hop, lateral barrier hop, single-leg hop, power skip, backward skip, double arm alternate leg bound, cycled split squat jump, and return to throwing program

Soccer/Football: Two foot ankle hop, double-leg hop, front barrier hop, lateral barrier hop, single-leg hop, power skip, backward skip, double arm alternate leg bound, and cycled split squat jump

Basketball/Volleyball: Two foot ankle hop, double-leg hop, squat jump, double-leg vertical jump, single-leg hop, single-leg vertical jump, power skip, backwards skip, double-arm alternate-leg bound, alternate leg push off box drill, and side-to-side push off box drill

Return to Sports

Return to sports is based on provider team (physician, physician assistant, athletic trainer, therapist) input. At 5-6 month follow-up with provider, clinical exam and functional testing will be used to determine optimal timing for return to sport. Transitional Therapy should continue during this time as the patient prepares to return to sports and athletic activities.

Clearance for return to full sports activities will be determined with input from the entire health team. When cleared by the provider, patients should return to their sports with a *4-week progression plan* as determined by the health team and coaches. This allows the athlete to acclimate to the mental and physical demands of sports and athletics in a safe manner.