

Orthopedic Surgery, Sports Medicine & Arthroscopy Specialists

# Jonathan Watson, MD <u>REHABILITATION PROTOCOL- Elbow Arthroscopy</u>

The rehabilitation guidelines are presented in a criterion based progression program. General time frames are given for reference to the average, but individual patients will progress at different rates depending on their age, associated injuries, pre-injury health status, rehab compliance, tissue quality and injury severity. Specific time frames, restrictions, and precautions may also be given to protect healing tissues and the surgical repair/reconstruction. It should not be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam findings, individual progress, and/or the presence of post-operative complications. The therapist should consult the referring physician with any questions or concerns.

Special attention must be given to impairments that caused the initial problem. For example, if the patient is s/p partial medial meniscectomy and they have a varus alignment, post-operative rehabilitation should include correcting muscle imbalances or postures that create medial compartment stress.

### INDIVIDUAL CONSIDERATIONS: S/p

#### **PHASE 1- Surgery to 2 weeks**

REHAB GOALS	1. Protection of the post-surgical repair			
	2. Avoid contracture			
	3. Minimize swelling, pain & inflammation			
PRECAUTIONS	1. No ROM limitation unless otherwise noted			
	2. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy			
	session			
RANGE OF	<ul> <li>Elbow flexion, extension, pronation, supination</li> </ul>			
MOTION	<ul> <li>Gentle passive elbow extension</li> </ul>			
EXERCISES				
SUGGESTED	<ul> <li>As above</li> </ul>			
THERAPELITIC	<ul> <li>Wrist flexion/extension</li> </ul>			
	<ul> <li>Gripping with putty</li> </ul>			
EXERCISES	<ul> <li>Wrist/elbow isometrics</li> </ul>			
	<ul> <li>Joint mobilizations at 1 week</li> </ul>			
	0			
CARDIOVASCULAR	Stationary bike at 1 week. No gripping of handle with operative arm			
EXERCISE				
PROGRESSION	<ul> <li>Minimal pain &amp; swelling</li> </ul>			

### **SKYLINE ORTHOPEDICS**

CRITERIA	0	Wound healing
	0	ROM at least 20-100

#### PHASE 2- 2-6weeks

REHAB GOALS	1. Protection of the post-surgical repair		
	2. Begin strengthening		
	3. Avoid painful exercises		
	4. Minimize pain and swelling		
PRECAUTIONS	1. Avoid gripping, lifting, carrying heavy items with operative arm		
	2. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy		
	session		
RANGE OF	<ul> <li>Continue with phase 1 exercises</li> </ul>		
MOTION	<ul> <li>Lower extremity sport specific flexibility exercises</li> </ul>		
EXERCISES			
SUGGESTED THERAPEUTIC EXERCISES	<ul> <li>Continue phase 1</li> <li>Light dumbbells, biceps, triceps at week 2</li> <li>Week 3- Thrower's exercises: ER/IR at 0 abduction, scaption ER full can, rows into ER at 90 abduction seated on stability ball, lower trap seated on stability ball, elbow flexion, elbow extension/triceps, wrist extension, wrist flexion, supination, pronation, sleeper stretch, supine horizontal adduction stretch into IR</li> <li>Light upper body strengthening at week 4</li> <li>Ok to begin lower extremity, core strengthening with avoidance of upper extremity weight bearing</li> </ul>		
	Stationary bike without gripping of handle with operative arm.		
EXERCISE			
PROGRESSION	<ul> <li>Minimal pain &amp; swelling</li> </ul>		
CRITERIA	<ul> <li>Less than 10 degree lack of extension</li> </ul>		
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# PHASE 3- 6-12 weeks postop

REHAB GOALS	<ul> <li>Protect surgical repair</li> </ul>
	<ul> <li>No pain with ADLs</li> </ul>
	○ Full ROM
	<ul> <li>Begin to restore Shoulder, scapular, elbow &amp; forearm strength</li> </ul>
PRECAUTIONS	<ul> <li>Continue ice after PT</li> </ul>
RANGE OF	<ul> <li>Continue exercises from phase 2.</li> </ul>
	<ul> <li>If no full extension, joint distraction &amp; posterior gliding of ulna</li> </ul>

MOTION EXERCISES	on humerus as well as weight or elastic resistance to stretch.
SUGGESTED THERAPEUTIC EXERCISES	<ul> <li>Continue to progress phase 2</li> <li>Progress thrower's exercises</li> <li>Sport specific core &amp; lower extremity strengthening. Avoid holding heavy weights in hands</li> <li>Shoulder &amp; scapular strengthening-rhomboids, serraturs, trapezius, lats, rotator cuff</li> <li>Biceps &amp; triceps strengthening</li> <li>Wrist &amp; forearm strengthening</li> </ul>
CARDIOVASCULAR EXERCISE	Stationary bike, walk/run progression, elliptical, upper body ergometry
PROGRESSION CRITERIA	<ul> <li>Full elbow ROM</li> <li>Pain free w/exercises &amp; ADLs</li> <li>5/5 shoulder &amp; scapular strength</li> <li>Shoulder ROM equal to contralateral</li> </ul>

# PHASE 4-13-26 weeks postop

REHAB GOALS PRECAUTIONS	<ul> <li>Restore normal shoulder &amp; scapular strength</li> <li>Restore shoulder &amp; forearm flexibility</li> <li>Progress to overhead activities</li> <li>Post-activity soreness should resolve within 24 hours</li> <li>Avoid post activity swelling</li> </ul>
RANGE OF MOTION EXERCISES	<ul> <li>Continue with flexibility exercises from previous phase</li> </ul>
SUGGESTED THERAPEUTIC EXERCISES	<ul> <li>Progress phase 3 activities with resistance/weight</li> <li>Progress rotator cuff strengthening to 90 deg internal &amp; external position</li> <li>Wrist &amp; finger extension strengthening, emphasize eccentrics</li> <li>Begin PNF</li> <li>Week 16-Can begin upper body plyometrics, progress from two hand close to body, two hand extended, single hand</li> </ul>
CARDIOVASCULAR EXERCISE	Continue to progress from phase 3
PROGRESSION	<ul> <li>No pain or swelling</li> </ul>

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• Full range of motion

#### PHASE 5-27+ weeks

REHAB GOALS	<ul> <li>Restore normal neuromuscular function</li> <li>Begin sport/work specific activities without pain</li> <li>Restore full strength, ROM, endurance</li> <li>Return to sport</li> </ul>
PRECAUTIONS	<ul> <li>Post-activity soreness should resolve within 24 hours</li> </ul>
RANGE OF	<ul> <li>Continue with flexibility exercises</li> </ul>
MOTION	<ul> <li>Lower extremity flexibility per sport</li> </ul>
EXERCISES	
SUGGESTED	<ul> <li>Progress strengthening from phase 4</li> </ul>
THERAPEUTIC	<ul> <li>Sport specific exercises- ok to begin throwing program once</li> </ul>
EXERCISES	plyometrics completed
CARDIOVASCULAR	<ul> <li>Continue to progress from phase 4.</li> </ul>
EXERCISE	
PROGRESSION CRITERIA	<ul> <li>Normal upper extremity flexibility, strength, power, endurance</li> <li>Completion of sport specific program</li> <li>Pain free</li> <li>Completion of trial return to play without issue</li> </ul>