



ELBOW ARTHROSCOPY & JOINT PRESERVATION PROTOCOL

Elbow Motion & Static Progressive Stretching Protocol

Clinical Rationale & Pathophysiology: Arthroscopic capsular release, osteophyte debridement, and contracture release for post-traumatic or degenerative stiffness. Preserving intra-operative motion gains requires early mobilization and Static Progressive Stretching (SPS) using stress-relaxation principles.

CRITICAL PRECAUTIONS & IMMOBILIZATION RULES

- Immediate active and active-assisted motion initiated within 24-48 hours post-operatively.
- **STATIC PROGRESSIVE STRETCHING (SPS):** Low-load prolonged stretch via turnbuckle orthosis starting Week 2.
- **NO AGGRESSIVE PASSIVE FORCING OR MANIPULATION:** Avoid microtrauma and inflammatory heterotopic ossification.
- Night resting extension splint worn consistently to prevent night-time flexion contracture recurrence.

Phase I: Immediate Active-Assisted Motion & Edema Control (Weeks 0 - 2)

Rehabilitation Goals & Milestones	Therapeutic Interventions & Exercise Progression
<ul style="list-style-type: none">• Preserve intra-operative passive flexion and extension• Minimize hemarthrosis, joint effusion, and peri-articular edema• Maintain complete active forearm pronation and supination	<ul style="list-style-type: none">• Cryotherapy and compression 20 min every 2-3 hours; elevate operative limb• Frequent active and active-assisted motion cycles (5-10 minutes every 2 hours)• Gravity-assisted supine elbow extension and overhead active flexion drills• Active wrist flexor/extensor tendon glides and full shoulder kinetic chain mobility• Anterior or posterior resting splint fitted in comfortable extension for sleep

Phase II: Static Progressive Stretch (SPS) & End-Range Mobilization (Weeks 2 - 6)

Rehabilitation Goals & Milestones	Therapeutic Interventions & Exercise Progression
<ul style="list-style-type: none">• Implement structured daily SPS turnbuckle orthosis• Achieve functional motion arc: minimum 30° to 130° flexion-extension• Restore full forearm pronation (80°) and supination (80°)	<ul style="list-style-type: none">• SPS Turnbuckle: 3 x 30 min/day in extension, alternating with 3 x 30 min/day in flexion• Stress-relaxation technique: patient adjusts dial to mild stretch, pauses for tissue release• Prone low-load prolonged stretch (LLPS) with 1-2 lb wrist weight over arm roll• Portal scar tissue mobilization and soft tissue release of biceps/brachialis/triceps• Light functional reaching and active periscapular dynamic posture re-education

Phase III: Strength Restoration & Motion Consolidation (Weeks 6 - 12)

Rehabilitation Goals & Milestones	Therapeutic Interventions & Exercise Progression
<ul style="list-style-type: none">• Consolidate motion gains; prevent late scar capsular contraction• Restore upper extremity muscular strength and functional endurance• Normalize upper extremity movement patterns in daily activities	<ul style="list-style-type: none">• Continue SPS splinting program (maintenance sessions or night extension splinting)• Progressive dumbbell (1-3 lbs) and elastic band resistance: biceps, triceps, forearm• Upper body ergometer, seated cable rows, and periscapular stabilization drills• Progressive closed-chain quadruped weight shifts and modified wall push-ups

Phase IV: Unrestricted Return to Vocational & Athletic Demands (Months 3+)

Rehabilitation Goals & Milestones	Therapeutic Interventions & Exercise Progression
<ul style="list-style-type: none">• Full unrestricted return to demanding manual vocational and recreational sports• Maintain long-term independent stretching routine to preserve motion envelope	<ul style="list-style-type: none">• Sport-specific and occupation-specific conditioning and plyometric progressions• High-load gym conditioning, heavy carrying, and overhead athletic progression• Final clinical examination and objective range of motion goniometry documentation

Clinical Communications & Triage: Division of Orthopaedic Surgery, UHN Toronto Western Hospital · Inquiries: office@drcvortho.ca · Protocol Portal: