SHOULDER INTERNAL IMPINGEMENT REHABILITATION PROTOCOL

GOAL: Achieve full and appropriate core, scapulothoracic, and glenohumeral kinematics while stretching the posterior capsule of the shoulder.

POINT OF EMPHASIS:

1. Function, rather than time, determines a patient’s progress through this protocol.

2. **POSTERIOR CAPSULE STRETCHING SHOULD BE PERFORMED THROUGH EVERY PHASE OF THIS PROTOCOL**

   a. **SLEEPER STRETCH:** Lie on side and stabilize scapula against wall. Shoulder is flexed to 90 deg, elbow to 90 deg. Passively internally rotate the arm through the wrist.

   b. **ROLL OVER SLEEPER STRETCH:** Same as the sleeper stretch except that the shoulder is only flexed to 50 deg to 60 deg and the patient rolls forward 30 deg to 40 deg from vertical to side lying.

   c. **CROSSED ARM STRETCH:** Patient stands with the shoulder flexed to 90 deg. Passive adduction is applied by non-dominant arm. This stretches primarily posterior musculature.

   d. **DOORWAY STRETCH:** Shoulder is abducted to 90deg and elbow flexed to 90deg with the elbow on the edge of an open doorway. The patient leans forward and inferior.

**PHASE 1: CORE/PROXIMAL KINETIC CHAIN PHASE**

- Correct weakness in lower extremity as necessary
- Improve/Correct Posture
  - Education/Instruction on neutral spine position
  - Thoracic mobility
- Core Strengthening Exercises (examples below)
  - Pelvic Tilt
  - Abdominal strengthening
  - Exercise ball progression – foot slides
  - Supine leg slides
  - Supine supported and unsupported marching
- Latissimus dorsi stretch
- Pectoralis minor/major stretch
- Kinetic Chain movements with scapular retraction
  - Lunges
  - Lunges with opposite trunk rotation dips
- Step ups with opposite/same side hip flexion
- Step ups with opposite/same side hip extension
- Lunges with shoulder flexion
- Lunges with shoulder punch
- Step ups with shoulder flexion and opposite/same side hip flexion
- Step ups with shoulder flexion and opposite/same side hip extension
- Step down lunge punch/forward and to side
- Step down lunge drop punch/forward and to side

**PHASE 2: SCAPULOThoracic PHASE**

- Scapular squeeze
- Lawnmower starts
- Isometric ball/table humeral head depression
- Lower trapezius isometrics (low rows)
- Isometric ball/wall
- Weight shifting on table progression
  - Single leg balance
  - Double leg balance on bubble
- Single arm pull down progression
  - Single arm pull down—rotation/same side
  - Single arm pull down—hip flexion/same side
  - Single arm pull down—hip flexion/rotation same side
- Single arm pull down progression while on bubble
- Single arm rows progression
  - Single arm rows—rotation/same side
  - Single arm rows—bent knee/same side
  - Single arm rows—bent knee/rotation/same side
- Single arm rows progression while on bubble
- Exercise ball weight shifting—chest/hips/feet
- Rowing/bilateral arms
- Pull downs/bilateral arms
- Iron cross with resistance band

**PHASE 3: GLENOHUMERAL PHASE**

- Cuff-specific exercises (done with scapular retraction and depression and with correct axial alignment) examples are below:
  - Isometrics
  - Resistance band IR/ER with good scapular position
  - Sidelying ER
Prone ER
- Empty can raises

- Full kinetic chain coordination (examples below)
  - Wall wash-standing with squat
  - Pail dumps
  - Exercise ball sitting/tubing exercises
  - Activity-specific coordinated movements without resistance

**PHASE 4: FUNCTION SPECIFIC PHASE**

- Full range of motion strengthening
- Activity-specific strengthening progression with resistance
- Activity-specific strength, agility, power, and endurance drills
  - Resistance band mock throwing
  - Ball bounce/wall-single/double arm
  - Resistance band swimming prone on exercise ball
- Progress activity-specific full kinetic chain movements