

Sports Hernia/Core Muscle Injury Rehabilitation Protocol

☐ **Phase I (Weeks 0—4): Max Protection**

- Precautions:
 - Avoid trunk/hip hyperextension
 - Avoid aggressive rectus abdominus contractions
 - No heavy lifting
 - Avoid activities that increases intra-abdominal pressure
- Goals:
 - Gradually restore ROM & Flexibility
 - Diminish pain and inflammation
 - Postural education
 - Appropriate Transverse Abdominus Recruitment
- Week 1-2:
 - PWB with crutch as needed, can d/c crutches when comfortable with ambulation prn
 - Cryotherapy
 - Gentle stretching hamstrings, adductors, quadriceps
 - Hip AAROM/PROM
 - Hip mobilization (as needed) grade I & II
 - Treadmill walking 15-20 minutes
- Weeks 3-4:
 - Continue above
 - Hip AROM
 - Hip ER/IR t-band
 - Heel raises
 - Posterior pelvic tilts
 - Stretch hamstrings, quads, iliopsoas, adductors

☐ **Phase II (Weeks 4—6): Moderate Protection Phase**

- Goals:
 - Restore full pain free hip and lumbar spine ROM
 - Protect surgical repair
 - Progress TA strengthening/stabilization training
- Criteria to enter Phase II:
 - Minimal pain
 - Improving hip and lumbar spine ROM
 - Ability to find neutral spine and recruit TA

- Week 4-6:
 - Progress Weight bearing
 - Standing Hip Abduction & Adduction AROM
 - Standing Hip Flexion/Extension AROM
 - Mini-Squats
 - lunges
 - Progress strengthening program
 - Leg Press
 - 4-way hip machine
 - Lunges
 - Step downs
 - Progress stabilization exercises (emphasizing neutral spine/TA contraction)
 - Bridging progression
 - Quadruped progression 4-point to 3-point to 2-point support
 - Plank progression
 - Gentle curl-ups
 - Progress to single leg activities (stable to unstable surface, progress to perturbations)
 - Continue hip AAROM/PROM
 - Lateral band walking
 - Hip mobilizations (as needed) grade III & IV
 - More aggressive (pain free) stretching, hamstrings, quad, iliopsoas, adductors
 - Scar mobilizations
 - Bike
 - Elliptical
 - Initiate jogging, pool or alter g treadmill

Phase III (Months 6--10): Advanced Progression

- Goals:
 - Good pelvic stabilization with ambulation
 - Good pelvic and lumbar spine stabilization with single leg activity
 - Initiate light sport activity
- Criteria to enter Phase III:
 - Full non-painful ROM of lumbar spine and hips
 - Good TA recruitment
 - Able to maintain neutral spine with standing and single leg activity
- Weeks 6-10:
 - Continue all stretching & flexibility exercises as above
 - Lumbar and hip mobilization as needed
 - Progress core and hip strengthening
 - Initiate plyometric training
 - Progress jogging
 - Return to light sport specific activity (no quick change of direction, no start/stop)

Phase IV (Months 10--14): Return to Activity/Sports

- Goals:
 - Return to full sport activity without pain
- Criteria to enter Phase IV:
 - Full non-painful lumbar and hip ROM
 - Satisfactory clinical exam
 - No pain with light sport specific activity
- Weeks 10-14:
 - Continue all strengthening/flexibility exercises
 - Continue lumbar and hip mobilization as needed
 - Initiate plant/pivot
 - Initiate start/stop
 - Increase speed training/sprinting
- Criteria to Return to Competition:
- Full pain free ROM & flexibility
- Hip strength equal to opposite side
- Ability to perform sport specific drills at satisfactory level & without pain
- Satisfactory Clinical Exam
- Approval by Physician