Sports Hernia Repair Protocol

Phase 1 (1-2 weeks)

Goals:
- Pain and edema control
- Education on posture and TA recruitment

Precautions: (first 2 weeks)
- Avoid trunk hyperextension, aggressive hip extension ROM
- Avoid crunch activity (large contractions of rectus abdominis)

Exercise:
- Cardiovascular
  - Treadmill walking (20 min)
- ROM/Stretching
  - Gentle stretching of hamstrings, adductors, quadriceps, iliopsoas (side lying or prone on elbows), lumbar spine
- Strengthening
  - Transversus Abdominis (TA) recruitment
  - Side lying hip abduction and extension

Manual:
- Lumbar spine rotation mobilization (if applicable) grade 1-2
- Hip mobilization (if applicable) grade 1-2
- Dry needling of adductors, quads (if applicable)

Education:
- Posture: Neutral spine with sitting and standing, desk setup if applicable

Criteria to move to Phase 2:
- Minimal pain with ADLs
- Improving ROM of lumbar spine and hips
- Ability to recruit TA and find neutral spine
Phase 2 (2-3 weeks)

Goals:
- Initiate TA strengthening and pelvic stabilization
- Full ROM of L/S and hip
- Protect surgical repair

Exercise:
- Cardiovascular
  - Pool or land walking (fwd/bwd), bike, elliptical
- ROM/Stretching
  - Continue stretching as above
  - Initiate more aggressive hip flexor, rectus femoris stretching (Thomas stretch: off table) *ensure pain free*
- Strengthening
  - Progress TA strengthening: blood pressure cuff
    - Dead bug progression
  - Static core training (emphasize ability to maintain neutral spine)
    - Bridging progression, quadruped progression, plank progression
  - Hip/pelvic stabilization (emphasis on gluteus medius, maximus, TA, and multifidus): Begin double leg progress to single leg as pain decreases and strength increases
    - Rocker board, band walks, dead lifts
  - Initiate functional strengthening: Begin double leg progress to single leg as pain decreases and strength increases
    - Squat, leg press, step up

Manual:
- Lumbar spine rotation mobilization (if applicable) grade 3-4
- Hip mobilization (if applicable) grade 3-4
- Scar mobilization
- Dry needling of adductors, quads (if applicable)

Criteria to move to Phase 3:
- No pain with ADLs, ambulation
- Full ROM of lumbar spine and hips
- Good TA recruitment and ability to maintain neutral spine and TA contraction with standing and single leg activity
- Minimal to no Trendelenburg with ambulation and single leg activity
Phase 3 (3-4 weeks)

Goals:
- Easy recruitment of TA
- Good pelvic stabilization with ambulation
- Good pelvic and lumbar spine stabilization with dynamic single leg activity

Exercise:
- Cardiovascular
  - Elliptical, increase speed/resistance bike, walking program, water treadmill jogging (progress to land as pain decreases and stability improves)
- ROM/Stretching
  - Continue as above
- Strengthening
  - Begin dynamic core training, initiate Swiss Ball core work (emphasize neutral spine during activities with movement or utilizing unstable surfaces)
    - Prone Swiss ball walkouts
    - Supine ball work
    - Quadruped with perturbation
    - Bridges on ball
    - Plank on Swiss ball or BOSU
    - Plank to side plank transitions
  - Standing stabilization
    - PNF diagonals with sport cord
    - Single leg rocker board with ball toss
  - Progress single leg functional activity - Add perturbation or change to dynamic surface for progression
    - Speed skater
    - Single leg squat
    - PNF patterns with lunge

Manual:
- Continue lumbar spine and hip mobilization (if applicable)
- Dry needling (if applicable)

Criteria to move to Phase 4:
- No pain with ADLs, ambulation, and initiation of straight plane jogging
- Full ROM of lumbar spine and hips
- Good TA recruitment and ability to maintain neutral spine and TA contraction with standing and single leg activity with added challenges of perturbation or dynamic surface
Phase 4 (4-5 weeks)

Goals:
- Initiate light sport activity with focus on hip and core stabilization

Exercise:
- Cardiovascular/Sports Activity
  - Return to light sport specific activity (no start/stop, quick change of directions)
  - Interval bike program, land jogging, light skating
- ROM/Stretching
  - Continue as above
- Strengthening
  - Progress core and hip stabilization, and functional strength as above
  - Initiate plyometric training

Manual:
- Continue lumbar spine and hip mobilization (if applicable)

Criteria to move to Phase 5:
- Symmetrical strength of hips, obliques, lumbar multifidus
- Functional test including single leg hopping
- No pain with return to light sporting activity
- Full lumbar and hip ROM

Phase 5 (5-6 weeks)

Goals:
- Return to full sport activity without pain

Exercise:
- Cardiovascular/Sports Activity
  - Hockey: initiate start/stop, skating drills with team, shooting
  - Football/Soccer: initiate plant/pivot, change direction, start/stop, increase speed training/sprinting
  - Court Sports: initiate plant/pivot, change direction, start/stop
- ROM/Stretching
  - Continue as above
- Strengthening
  - Continue as above

Manual:
- Continue lumbar spine and hip mobilization (if applicable)
- Dry needling (if applicable)