HIP RESURFACING POST-OPERATIVE GUIDELINES

The following hip resurfacing guidelines were developed by HSS Rehabilitation. Progressions in this guideline are both criteria-based and can be modified for individual patient needs. Phases and time frames are designed to give the clinician a general sense of progression. The rehabilitation program following hip resurfacing emphasizes early, controlled motion to prevent hip stiffness and to avoid disuse atrophy of the musculature. The program should be a balance of managing prior deficits, tissue healing and appropriate interventions to maximize flexibility, strength, and pain-free performance of functional activities. This model should not replace clinical judgment.

Follow physician modifications as prescribed.
HIP RESURFACING POST-OPERATIVE GUIDELINES

Pre-Operative Phase

PRECAUTIONS
- Avoid prolonged sitting, standing, and walking if painful
- Avoid severe pain with strengthening and ROM exercises
- Modify/minimize activities that increase pain

ASSESSMENT
- Lower Extremity Functional Scale (LEFS)
- Pain
- Hip active range of motion (AROM)
- Single leg stance (SLS)
- Lower extremity (LE) and core strength

TREATMENT RECOMMENDATIONS
- Targeted core and LE strengthening
- Targeted LE stretching without increasing baseline pain
- Low impact cardiovascular conditioning
- Self soft tissue mobilization
- Functional mobility training
- Balance training
- Independent with home exercise program (HEP) that addresses primary impairments
- Familiarize with post-operative plan of care, treatment progressions, mobility and HSS hip resurfacing microsite if available

CRITERIA FOR ADVANCEMENT
- Increased flexibility
- Increased LE and core strength
- Improved balance
- Patient able to verbalize post-operative plan of care

EMPHASIZE
- Improve/maintain muscular flexibility
- Familiarize with post-operative plan of care
- Familiarize with HSS Rehabilitation microsite if available
HIP RESURFACING POST-OPERATIVE GUIDELINES

Acute Care Phase (Week 1)

PRECAUTIONS

- Avoid prolonged sitting, standing, and walking
- Avoid severe pain with strengthening and ROM exercises
- Avoid pillow under knee to prevent hip flexion contracture
- Avoid lying on operated side
- Weight bearing as directed by MD
- Use appropriate assistive device as directed by PT
- Follow precautions specific to MD
  - No precautions: All movements are allowed unless specified by MD
  - Standard precautions: Avoid hip flexion greater than 90°, adduction past mid-line, and internal rotation of hip past neutral

ASSESSMENT

- Mental status
- Pain
- Wound status
- Swelling
- Post-anesthesia sensory motor screening
- Functional status

TREATMENT RECOMMENDATIONS

- Strengthening exercises including quadriceps and gluteus isometrics, ankle pumps, seated knee extension, seated hip flexion (≤ 90° if standard precautions), standing hip abduction, standing knee flexion
- Transfer training in and out of bed and sit to stand from chair
- Gait training with appropriate assistive device and weight bearing status
- Stair negotiation with appropriate assistive device and weight bearing status
- ADL training
- Cryotherapy and elevation of LE to prevent swelling
- Initiate and emphasize importance of HEP
CRITERIA FOR ADVANCEMENT

- Transfers unassisted from supine to sit and sit to stand safely
- Ambulates safely with appropriate device and weight bearing on level surfaces and stairs
- Independent with HEP
- Discharge home when goals have been achieved and with MD clearance

EMPHASIZE

- Control swelling
- Independent transfers, gait, and stair negotiation
- Pain-free basic exercises
- Normalized gait with appropriate assistive device
HIP RESURFACING POST-OPERATIVE GUIDELINES  
Post-Operative Phase 1 (Weeks 2-6)

**PRECAUTIONS**
- Follow precautions until cleared by MD
- Avoid prolonged sitting, standing, and ambulation
- Avoid severe pain with therapeutic exercise, range of motion (ROM), and functional activities
- Avoid reciprocal stair negotiation and ambulation without assistive device until non-antalgic gait is achieved without compensations
- Avoid irritating hip flexors with therapeutic exercises
- Avoid impact activities
- Progress activity with respect to tissue healing
- Avoid carrying > 25 lbs. for first 3 months post-operatively

**ASSESSMENT**
- LEFS
- Pain
- Hip AROM
- LE and core strength
- SLS
- Lumbo-pelvic dissociation
- 6” step up

**TREATMENT RECOMMENDATIONS**
- Restore ROM through active motion, functional movements and guided passive stretches within any precautions
- Multi-positional therapeutic exercise emphasizing strengthening of hip abductors and extensors, knee and ankle
- Closed kinetic chain exercises for the core and LE
- Exercises that encourage lumbo-pelvic and femoral-pelvic dissociation (e.g., quadruped rocking)
- Body weighted squatting with focus on hip hinging (<90° hip flexion) and symmetrical weight bearing
- Low impact cardiovascular conditioning including stationary bicycle, elliptical, treadmill walking
- Gait training with focus on active hip flexion and extension, symmetrical weight bearing, heel strike
• Forward and lateral step up progression, step down progression (starting with 2-4”)
• Proprioception/balance training: bilateral dynamic activities, SLS
• Cryotherapy/elevation/modalities as needed to control swelling

MINIMUM CRITERIA FOR ADVANCEMENT
• Able to complete 6” step up with adequate control
• Even weight bearing and good form with stand <-> sit
• Swelling and pain controlled
• Ambulation on level surface with normal gait pattern
• Independent with activities of daily living (ADL)
• Independent with full HEP

EMPHASIZE
• Control swelling
• Functional strength
• Normalize gait pattern
• Reciprocal stair negotiation
• Encourage lumbo-pelvic and hip hinging dissociation
HIP RESURFACING POST-OPERATIVE GUIDELINES
Post-Operative Phase 2 (Weeks 7-12)

PRECAUTIONS
- Avoid pain with ADL and therapeutic exercise
- Avoid high impact activities such as running, jumping, and plyometric activity
- Follow precautions until cleared by MD
- Avoid carrying > 25 lbs. for first 3 months post-operative
- Respect tissue healing- avoid doing too much too soon

ASSESSMENT
- LEFS
- Pain
- Hip AROM
- LE and core strength
- SLS
- Squat- for symmetry, depth and form
- 8” step down

TREATMENT RECOMMENDATIONS
- Progression of Phase 1 exercises
- Stretching of quadriceps, hamstring, hip flexors and appropriate muscle groups
- Core strengthening
- Exercises that encourage lumbo-pelvic and femoral-pelvic dissociation
- Progressive resistance exercises of bilateral LEs
- Leg press progression (double limb, eccentric, single limb)
- Continue stationary bike, treadmill, elliptical
- Advance proprioception and dynamic/single leg balance exercise
- Continue step progressions for strength and function
- Address limitations throughout the kinetic chain that are affecting mobility
- Pool therapy if available
CRITERIA FOR DISCHARGE

- LE strength and ROM WFL
- Able to complete 8” step down with control
- Independent with all mobility tasks
- Independent with full HEP
- **Discharge or progress to Phase 3 if cleared by MD to return to sport or advanced functional activities**

EMPHASIZE

- Increase flexibility – emphasize hip extension, flexion and external rotation
- Increase strength – emphasize hip abduction and extension without compensation
- Gradual return to function/recreational activity
- Diminish frequency of physical therapy and progress towards independent HEP
HIP RESURFACING POST-OPERATIVE GUIDELINES
Post-Operative Phase 3 (Weeks 13-18)
Begin only if returning to sport with MD clearance

PRECAUTIONS
- Speak to your MD about which sports are allowed following hip resurfacing
- Avoid carrying > 50 lbs. for first 6 months post-operative
- May resume racquet sports at 3-4 months (e.g., doubles tennis, racquetball, tennis hitting with a coach or “pro”)
- Avoid high impact sports for first 6 months (e.g., running)

ASSESSMENT
- LEFS
- Pain
- Hip AROM
- Flexibility
- Strength
- SLS
- Single leg squat
- Kinetic chain during sport specific movement

TREATMENT RECOMMENDATIONS
- Eccentric quadriceps, hamstring, glute control
- Progressive resistance exercises
- Activity specific training
- Low-medium impact cardiovascular conditioning
- Low-medium impact agility drills
- Dynamic balance activities
- Sports specific warm up and activities
- Consider working with a performance specialist specific to the sport or activity

CRITERIA FOR DISCHARGE
- No increase in pain or swelling with activity
- Adequate control with SLS
- Symmetrical LE strength
- Strength, ROM, flexibility throughout kinetic chain to meet sports specific demands
- Independent with full HEP
EMPHASIZE

- Neuromuscular patterning
- Gradual increase of loads to meet sports specific demands
- Optimize kinetic chain to meet sports specific demands
HIP RESURFACING POST-OPERATIVE GUIDELINES

References


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