

# Rehab Considerations for the Post-Op Hip Patient

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## OBJECTIVES

- To understand the differences between a post-op arthroscopic hip patient compared to other post-op hip patients.
- To understand the physiological reasoning for precautions
- To be able to complete progression of physical therapy during the recovery period for a patient who has underwent a hip arthroscopic procedure.

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## Post-op comparisons

### Hip Arthroscopy

- Flat foot weight bearing using 2 crutches
- Early restrictions with ROM but they fall away fairly quickly
- Usually younger patient demographic
- Active patients

### Total Hip Arthroplasty

- May require more than crutches for ambulation (FWW, 4WW, SPC)
- Depending on surgery may have long term restrictions
- 5<sup>th</sup> decade of life or older
- Variable activity level

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## POST-OP PERIODIZATION

- Immediate Rehab (0-2 weeks)
- Early Rehab (3-4 weeks)
- Intermediate Rehab (4-5 weeks)
- Advanced Rehab (6-12 weeks)
- Sport Specific Rehab (>12 weeks)

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## IMMEDIATE POST-OP PERIOD (0-2 WEEKS)

- Start PT early – Days 1-4 is optimal – 2x/week for 6 weeks
  - Delayed start equates to increased stiffness and adhesions
- Objectives of this period
  - Promote movement towards 90\* of hip flexion
  - Educate patient on precautions (first 2 weeks)
    - Flat foot weight bearing
    - Limit hip ER to 20\*
    - No extension beyond neutral
  - Instruct on flat foot weight bearing with crutches
    - Avoid early irritation of hip flexor
    - Step to patterning
  - MD follow-up for stitch removal ~day 10
  - Pain management



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## IMMEDIATE POST-OP PERIOD

- Home Program Expectations
  - Focus on PROM using CPM machine – 4-6 HOURS PER DAY!
    - Break into 1-2 hour segments
    - Start at 30-70 degrees of motion and increase hourly per tolerance
    - Can substitute 15 minutes of stationary biking for 1 hour of CPM
  - Icing throughout the day
  - Prone lying
  - Early strengthening / Isometrics:
    - ABDuction
    - ADDuction
    - Extension
    - ER
    - TA sets/pelvic tilts



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## EARLY POST-OP PERIOD (WEEKS 3-4)

- Precautions:
  - Maintain hip extension limitation to neutral
  - Okay to start with hip ER  $>20^\circ$
- Weight bearing:
  - 50% WB'ing in week 3 – work towards use of 1 crutch
    - What to look for?
  - Goal to increase to full WB'ing by end of week 4
- Incisional care:
  - Initiate scar mobilization

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## EARLY POST-OP PERIOD (WEEKS 3-4)

- Home Exercise Program:
  - Stretching
    - Hip flexor stretch
    - Adductor
    - Piriformis
  - Strengthening
    - CLAMS
    - D/L bridges
    - Side lying hip ABD
  - Balance Drills
    - Tandem stance
    - Weight shifting



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## INTERMEDIATE POST-OP PERIOD (WEEKS 4-5)

- Gait:
  - FWB with focus on restoration of normalized gait pattern
- Focus continues to be on strengthening of the hip
- Stretching continues to ensure normalization of tissue flexibility
  - Joint mobilizations if needed
- Proprioception progresses
  - S/L activities on the ground
  - D/L activities on unstable surfaces
- Cardiovascular fitness
  - Stationary bike up to 30 minutes with resistance
  - Elliptical – forward and backwards
- Strengthening
  - Standing SLR series
  - Closed chain glutes and quads (Power's program)
  - Initiation of early core strengthening



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## ADVANCED POST-OP PERIOD (WEEKS 6-12)

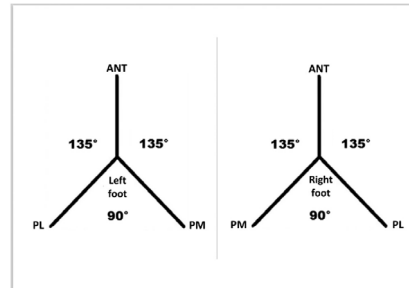
- ROM will continue to improve
  - Continue with joint mobilization to help facilitate as needed
  - Initiate instrument assisted MT as needed
  - Initiate dry needling to work against scar tissue and muscle tightness
- Cardiovascular training
  - Brisk walking on treadmill, sidestepping. By mid-period adding incline
  - Elliptical with equal time forward and backwards
- Strengthening
  - Closed chain glute/quad exercises working towards S/L as able
  - Add core stabilization with emphasis on neutral pelvis
  - D/L plyometrics
- Proprioception
  - S/L balance on unstable surfaces

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## SPORT SPECIFIC POST-OP PERIOD (>13 WEEKS)

- Can initiate return to running program
  - Consider Alter G as needed
  - Interval training
- Sport specific drills
  - Modified Star Excursion Balance Test
  - Cutting
  - Pivoting
  - Jumping
  - S/L limb plyometrics

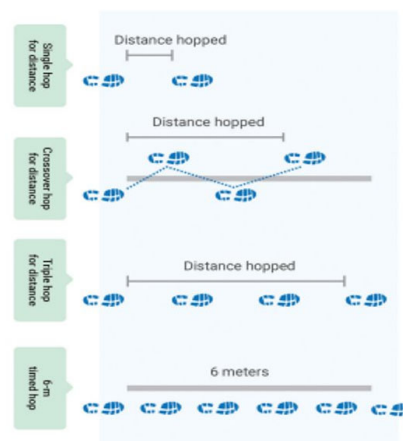


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## CRITERIA FOR D/C

- Pain-free with ADL's
- Hip strength 5/5 in all planes
- Able to complete step down test x5 with excellent form/control
- NOYES test with >85% limb symmetry



\*Reprinted with permission from the *International Journal of Sports Physical Therapy*.  
Myers BA, Jenkins WL, Killian C, Rundquist P. Normative data for hop tests  
in high school and collegiate basketball and soccer players. *Int J Sports Phys Ther*.  
2014;9(5):596-603. © 2014, IJSPT.

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## REFERENCES

Moore D, Semciw AI, Pizzari T. A systematic review and meta-analysis of common therapeutic exercises that generate highest muscle activation in the gluteus medius and glutes minimus segments. *International Journal of Sports Physical Therapy*. 2020;15(6) 856-881.

Myers BA, Jenkins WL, Killian C, Rundquist P. Normative data for hop tests in high school and collegiate basketball and soccer players. *International Journal of Sports Physical Ther*. 2014;9(5): 596-603.

Picot B, Terrier R, Forestier N. The Star Excursion Balance Test: An Update Review and Practical Guidelines. *International Journal of Athletic Therapy and Training*. 2021;26(6): 285-293.

Wilcox EL, Burden AM. The influence of varying hip angle and pelvis position on muscle recruitment patterns of the hip abductor muscles during the clam exercise. *JOSPT*. 2013;43(5):325-31.

Images:

Exercise pictures were captured from MedBridge Exercise Builder. Last accessed 7/27/22.

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