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Total Hip Arthroplasty Physical Therapy Protocol. Posterior Approach

Basic Principles for the Patient and Therapist

1. These guidelines describe prioritized rehabilitation following SUPERPATH (superior approach sparing anterior and posterior capsule) THA.
2. Post-operative recovery begins with a pre-operative evaluation, training and educational visit at the hospital. Patients learn an initial post-operative set of exercises, including isometric and active range of motion exercises. Patients also learn how to walk with crutches, or a front wheeled walker, in order to facilitate a faster return to normal walking, as well as allowing practice within the home environment to expedite safe return, and allay fears associated with this.
3. Posterior Hip precautions: In general posterior hip precautions do not decrease dislocations but I still recommend prudence in positions classically associated with posterior hip instability.
4. Return to Sports: Your surgeon will determine feasibility of return to sport with traditional THA rehabilitation. Patients should discuss this with their surgeon and physical therapist early in rehabilitation, as there are some higher level activities that can be done.

ROM Exercises

- Active assisted range of motion (AAROM) and gentle Passive range of motion (PROM) of hip in all planes, within the range of motion restrictions

Outpatient Rehabilitation Guidelines for Traditional Total Hip Arthroplasty

PHASE I (surgery to about 3-6 weeks after surgery)

Appointments
- Physician appointment and suture removal within 2 weeks after surgery
- Rehabilitation begins 7-10 days after hospital discharge, 1-2 times every week thereafter

Rehabilitation Goals and Priorities
- Protection of the post-surgical hip through weight bearing as tolerated and education on avoiding extreme range of motion of hip (think modified or less strict version of posterior hip precautions)
- Normalize gait with assistive device. Dependent upon previous functional level before THA, as well as patient progress post THA, between post-operative weeks 3 and 6 most patients should be able to transition to 1 crutch or use of cane and begin walking short distances without assistive device. This needs to be useful, functional gait, not antalgic trendelenburg.
- Restore leg control: Patients should be able to perform repeated standing hip abduction on the affected side, and demonstrate fluent movement patterns while considering dislocation precautions

Precautions
- Use assistive device(s) for normal gait, weight bearing as tolerated (WBAT)
- Less rigid version of posterior hip precautions: no flexion greater than 110. No combined IR, flexion and adduction
- Range of motion should be regained mostly through active/active assistive movement exercises (within precautions). Passive forced stretching and joint mobilizations should be avoided secondary to potential for hip dislocation/subluxation

Suggested Therapeutic Exercise/Treatment
- Gait activities (marching, heel-toe rocking, sidestepping) – may utilize pool for gait activities once the suture sites are healed without drainage or scab (4 weeks post-operatively at earliest, unless otherwise indicated by the surgeon). Aquatic exercise/pool should be strongly considered if trendelenburg is not improved by the 6 week mark.

• Isometric hip flexion, extension, abduction, adduction, internal rotation and external rotation
• Weight shifting – progressing to balance exercises
• Hip abduction, adduction, flexion, and extension active range of motion (AROM) without resistance. (With reduction in substitution patterns)
• Begin with short arc movements and progress to full arc
• Begin in gravity minimized positions and progress to anti-gravity positions (i.e. abduction in side lying)
• Address objective deficits in joints above and below, address mechanics of related areas (spine, knee, ankle as needed)

Cardiovascular Progression Criteria
• Upper body circuit training or upper body ergometer (UBE) if patient desires • Achievement of goals above

PHASE II (begin after meeting Phase I criteria, usually 6-8 weeks after surgery)

Appointments
• Physician appointment at 6 weeks after surgery
• Rehabilitation appointment based on patient progress, 1-2 times every week

Rehabilitation Goals and Priorities
• Regain muscular strength (focus on abduction)
• Progress off assistive device for all surfaces and distances, demonstrating normal gait pattern
• Single leg stance control
• Good control and no pain with functional movements, including step up/down, sit to stand squat
• Functional progress with donning socks and Lower extremity (LE) garments

Precautions
• ROM: May advance to full ROM after 1. 6 week post op and 2. Get OK from me to advance.
• Discontinue (D/C) crutch/cane when gait is normal and pain free. Do not encourage discontinuing device if pain or Trendelenburg remains
• Post-activity soreness should resolve within 24 hours • Continue to maintain traditional THA precautions
◦ Patients should regain full (allowed) functional AROM through active movements at controlled speeds. Avoid passive/forced movements
◦ Begin with single plane, non-weight bearing movements
◦ Avoid multi-planar weight bearing movements within the ROM restrictions until patient demonstrates good control with single plane movements

Suggested Therapeutic Exercise
• Stationary bike (10-20 minutes)
• Transfer training to and from the ground
• ROM exercises to assist donning socks and LE garments
• Gait and functional movement drills
• Non-impact LE and core strengthening
• Non-impact balance and proprioception training
• Hip AROM with progression of resistance
• Progressive hip abduction strengthening is the focus of this phase
◦ Standing/side-lying abduction exercises
◦ Functional closed chain abduction strengthening ◦ Aquatic pool exercises if trendelenburg persists

Cardiovascular Exercise Progression Criteria
• Non-impact endurance training; stationary bike, Nordic track, flutter kick with kickboard, deep water run, elliptical trainer
• Achievement of goals above

PHASE III (begin after meeting Phase II criteria, usually 9-12 weeks after surgery)

Appointments
• Physician appointment 3-6 months after surgery, depending on patients progress
• Rehabilitation appointment based on patient progress and personal goals, 1 time every 1-3 weeks

Rehabilitation Goals and Priorities
• Improve muscular strength and endurance
• Good control and no pain with all activities of daily living (ADL) as well as work specific movements.
• Able to walk longer distances (1 mile) without a limp

Precautions
• Post-activity soreness should resolve within 24 hours • No impact activities
• Replicate work specific energy demands (non-impact) • Achievement of goals above.
Suggested Therapeutic Exercise
• Strength and balance exercises with progression from double leg to single leg and single plane drills to multi-plane drills
• Dynamic control exercise beginning with low velocity, single plane activities and progressing to higher velocity, multi-plane activities
• Progression of hip and core strengthening
• Continue ROM/stretching towards (and potentially above) 90 degrees flexion with ER for those patients who are allowed to exceed this for shoe and sock donning

Cardiovascular Exercise
Return to non-impact sport/work criteria

This protocol was adapted from the University of Wisconsin therapy and orthopedic departments.

Contact
Please refer to the website for the office phone number.