Anterior Total Hip Arthroplasty

GUIDELINE REAHB SERVICES

Purpose:
This guideline is designed to return the individual to their full activities as quickly and safely as possible, following an anterior approach Total Hip Arthroplasty. Modifications to this guideline may be necessary dependent on physician specific instruction or other procedures performed. This evidence-based Anterior Total Hip Arthroplasty guideline is criterion-based; time frames and visits in each phase will vary, depending on many factors. The therapist may modify the program appropriately depending on the individual's goals for activity following Anterior Total Hip Arthroplasty.

This guideline is intended to provide the treating clinician with a frame of reference for rehabilitation. It is not intended to substitute clinical judgment regarding the patient's post-operative care based on exam/treatment findings, individual progress, and/or the presence of concomitant procedures or post-operative complications. If the clinician should have questions regarding post-operative progression, they should contact the referring physician.

Precautions:
- Dislocation precautions: to be followed on average 3 months or as directed by surgeon
- WBAT with cemented hip
- WBAT with porous in growth hips
- Dislocation precautions (6-12 weeks – per MD recommendations):
  - No hip extension past neutral
  - No hip external rotation beyond neutral
  - No full bridging
  - No prone lying
  - None of the above motions combined
  - When patient is supine, keep the hip flexed at or above 30°
- No twisting at waist in weight bearing
- Avoid aggressive/forceful stretching of anterior hip capsule in passive, active, and functional situations in all phases of recovery

PHASE	SUGGESTED INTERVENTIONS	MILESTONES FOR PROGRESSION
Phase I Patient Education / Pre-Op	**Educate:** • Anatomy, existing pathology, post-op rehab schedule, bracing, and expected progressions, post-op precautions • Instruct on Pre-Op Exercises • Prospective joint replacement • Home safety • Equipment recommendations • Overview of Hospital Stay: — Nursing care — Therapy services	**Goals:** • Understand pre-op exercises, instructions and overall plan of care **Criteria to Advance:** • Surgery

	— Pharmacy — Discharge planning	
Phase II IP/OP in a Bed	**Immediately Post-Op:** • Patient/family education and training for: — Safety with mobility/transfers — Icing and elevation — Home Exercise Program ⇒ Utilize JRMC HEP 2x/day in hospital and at home — Appropriate Home Modifications • Patient will have OP PT (or HH) within first week after discharge — N/A if discharging to swing bed or SNF — Patient/family education and training for: ⇒ Safety with mobility/transfers ⇒ Icing and elevation ⇒ Home Exercise Program (1) Utilize JRMC HEP 2x/day in hospital and at home • Foot of bed may be unlocked and flexed while in supine • Pillow under knee to maintain slight hip flexion	**Goals:** • SBA with transfers • SBA with bed mobility (with/without leg lifter) • CGA stair navigation with AD • SBA ambulation for household distances with AD • Min A for car transfer (with/without leg lifter) • SBA for bathing/dressing (with or without adaptive equipment) • CGA for shower transfer with appropriate modification • SBA for toilet transfer with appropriate modification **Criteria to Advance:** • DC from acute care setting
Phase III Weeks 0-4	**Therapy:** • Complete HOOS or HOOS Jr. • ROM: — P/A/AAROM within hip precautions • Manual: — Soft tissue mobilization and lymph drainage as indicated • Stretching: — Passive stretching including hip flexor to neutral (Thomas Test Position) — Quads — Hamstrings — Abductors — Calf • Edema control if appropriate • NuStep/bike maintaining hip precautions • Supine: — Quad/gluteal/hamstring/adductor sets — Ankle pumps	**Goals:** • Provide environment for proper healing of incision site • Prevention of post-op complications • Improve functional hip strength and ROM within precautions/dislocation parameters • Minimize pain and swelling — Use of cryotherapy/modalities as needed • Normalize gait with appropriate assistive device **Criteria to Advance:** • Controlled pain and swelling • Safe ambulation with assistive device and no to minimal Trendelenburg and/or antalgic gait pattern • Adequate hip abductor strength of at least 3+/5 • Hip extension ROM to neutral

	— Assisted to active heel slides — Short arc quad — Partial bridging — Hip abduction as indicated • Sitting exercises including resisted LAQ and hamstring curl • Side lying exercises including hip abduction and CLAM at 2-3 weeks as indicated • Standing exercises including mini squats, marching, heel raises, calf raises, single limb stance, step-ups, lateral stepping, standing hip exercises (abduction, flexion) • Gait training: — Reinforce normal gait mechanics, equal step length, equal stance time, heel to toe gait pattern, etc. — Use of appropriate assistive device independently with no to minimal Trendelenburg and/or antalgic gait pattern	
Phase IV Weeks 4-10	**Therapy:** • Continue with previous exercise program • Complete 6-min Walk Test or Stair climbing Test if appropriate • Driving- as per physician's orders — Good limb control & off pain meds • ROM: — P/AROM to pt tolerance and within hip precautions • Manual: — Passive stretching and soft tissue mobilization — Include scar mobilization as needed • Edema control if appropriate • NuStep/upright bike • Progression of previous exercises — Addition of resistance bands/weights • Weight machine: — Leg press — Leg extension — Hamstring curl — Multi-hip machine within precautions • Closed chain strengthening, including: — ¼ to ½ depth forward lunge — Sit to stand chair squats	**Goals:** • Progress full functional ROM within hip precautions • Improve gait and stair use without AD as able • Incision mobility and complete resolution of edema • Advance strengthening including functional closed chain exercises and balance/proprioceptive activities **Criteria to Advance:** • Adequate hip abductor strength to 4/5 • Ambulate without AD safely • Hip extension ROM to 5°

	— ¼ to ½ wall sits — Resisted forward & lateral walking • Static & dynamic balance/proprioceptive activities as appropriate — BAPS, BOSU, dyna-disc • Aquatic exercises as needed if incision completely healed • Gait training: — Reinforce normal gait mechanics ⇒ Equal step length, equal stance time, heel to toe gait pattern, etc. — Ambulation on uneven surfaces — Negotiation of stairs with reciprocal gait pattern without compensation — Progression to assistive device free gait without Trendelenburg and/or antalgic pattern as appropriate	
Phase V Weeks 10+	**Therapy:** • Continue previous hip strengthening exercises • Complete HOOS or HOOS Jr. at time of discharge • ROM: — P/AROM to pt tolerance within hip precautions • Progression of previous exercises • Endurance exercise including gait, elliptical and stair stepper • Advanced long-term HEP instruction • Sport specific activities in preparation for return to physician approved recreational sport • Hip Functional Testing for return to jogging: — 12-16 weeks s/p (with physician approval) — >90% limb symmetry index for isometric hip strength — Pass SL squat testing ⇒ Step down test, SL squat for depth test — Complete walk jog program — Exhibit normal running mechanics prior to return to distance running (running analysis on treadmill) — Education on how to properly advance mileage safely (10% rule, ACWR) — Return to Run is estimated at 6 months with physician approval	**Goals:** • Improve hip muscle strength to 4+/5 to 5/5 and endurance • Normalized gait on even and uneven surfaces • Return to work/recreational activities as physician approved • Independent with advanced HEP • Understanding of avoidance of lifelong restrictions to include high impact activities such as running, jumping, kicking and heavy manual labor

	• Gait training: — Normalized gait on even and uneven surfaces	