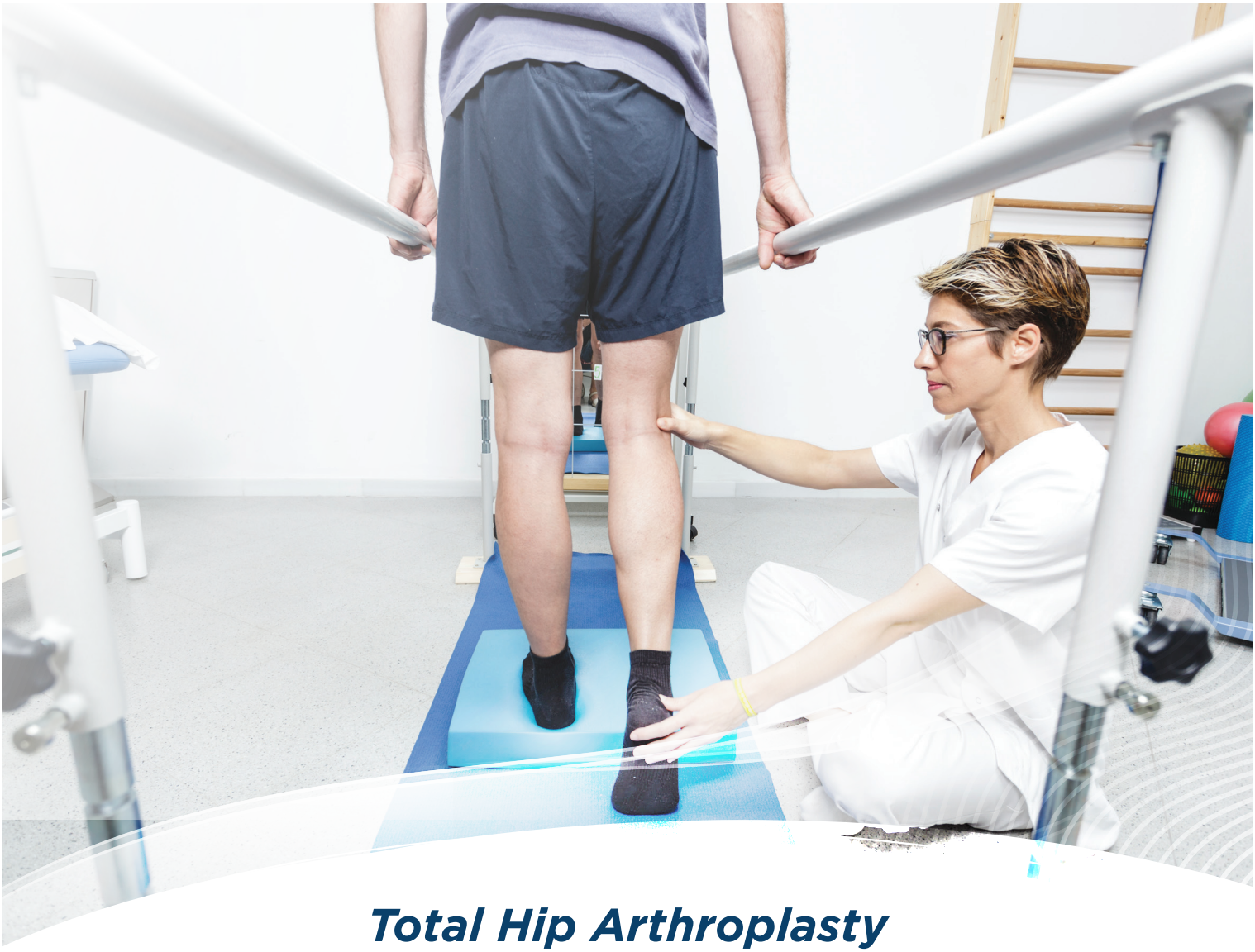

Total Hip Arthroplasty (Anterior Approach) Rehabilitation Guideline

This rehabilitation program is designed to return the individual to their activities as quickly and safely as possible. It is designed for rehabilitation following an anterior approach total hip arthroplasty. Modifications to this guideline may be necessary depending 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 including patient demographics, goals and individual progress. This guideline is designed to progress the individual through rehabilitation to functional activity participation. The therapist may modify the program appropriately depending on the individual's goals for activity following 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 or 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.

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General Guidelines/Precautions:

- Recommend assistance/supervision for 72 hours post-discharge
- Full hip ROM at 10-12 weeks
    - Limit hip extension per MD recommendations
- Communicate with physician regarding:
    - Weight-bearing status
    - Length of restrictions of high-impact activities
    - Dislocation precautions (6-12 weeks)
        - No forceful hip extension or external rotation past neutral
    - Encourage outpatient PT starting within the first week after surgery
        - Advancement of HEP
        - Determine additional goals and timelines
    - Return to recreational sport
        - Must demonstrate sufficient hip mobility and strength, and obtain physician clearance
- Outcomes
    - Patient Reported: FOTO, LEFS, WOMAC, HOOS JR
    - Performance Tests: 30-Second Chair Stand Test, Gait Speed (10MWT), TUG, 6MWT, Berg

Anterior Total Hip Arthroplasty Rehabilitation Guideline

PHASE	SUGGESTED INTERVENTIONS	GOALS/MILESTONES FOR PROGRESSION
Phase I *Patient Education/ Pre-Op Phase*	***Discuss:*** Anatomy, existing pathology, post-op rehab schedule, and expected progressions ***Education and Instruction on Pre-op Exercises and Expectations:*** Prospective joint replacement candidates will participate in pre-op education individually or class setting which includes instruction in: • Home safety • Equipment recommendations • Pre-surgical LE exercises • Post-op pain expectations • Overview of hospital stay may include but not limited to: o Nursing care o Therapy services o Pharmacy o Discharge planning	***Goals of Phase:*** 1. Understanding of pre-op exercises, instructions and overall plan of care
Phase II *Inpatient/Acute Care Phase* *Post-Op 0-3 days*	***Immediate Post-Operative Instructions:*** Patient and family/coach education and training: • Safety with mobilization, transfers, ADLS • Edema control: Icing and elevation • HEP • Home modification **Track 1: Patients who have OP PT starting within the first week post-op or discharging to swing bed or SNF** ***Home Exercise Examples:*** Supine: Ankle pumps, quad sets, hamstring sets, glute sets, assisted heel slides, SAQ, hip abduction, external and internal rotation to neutral Seated: AROM knee extension and flexion HEP: 2 times per day in hospital and at home **Track 2: Patients that do not have OP PT starting within the first week post-op or discharging to swing bed or SNF** ***Home Exercise Examples:*** HEP from Track Standing: Hip flex with knee bend, knee flex, heel raises, terminal knee extension, hip abduction, mini-squats HEP: Supine and seated exercises 1 time per day and standing exercises 1 time per day	***Goals of Phase:*** 1. Protect healing tissue 2. Pain and edema control (compression garments) 3. DVT prevention (Well's criteria) 4. Improve pain-free ROM 5. Muscle activation ***Functional goals:*** 1. SBA for transfers, bed mobility, ambulation for household distances, dressing, showering and toilet transfers with least restrictive assistive devices or modifications. 2. CGA stair negotiation with appropriate AD 3. MIN assist for car transfer with or without leg lifter ***Criteria to Advance to Next Phase:*** 1. Discharge from acute care setting

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Anterior Total Hip Arthroplasty Rehabilitation Guideline

Phase III *Protected Motion and Muscle Activation Phase* *Weeks 0-4* *Expected visits: 4-6*	***Specific Instructions:*** • Complete hip outcome tool (FOTO, WOMAC or HOOS JR) ***Suggested Treatments:*** **ROM:** P/A/AAROM within hip precautions (extension and ER to neutral) **Manual therapy:** Soft tissue mobilization and lymph drainage as indicated **Stretching** (within hip precautions)**:** passive stretch to hip flexor, quadriceps, hamstrings, ITB/TFL, adductors, and calf **Modalities:** Edema-controlling treatments if appropriate Therapeutic exercise: o NuStep/recumbent bike o Side lying exercises including hip abduction and clam shells Gait Training: o Reinforce normal gait mechanics – equal step length, equal stance time, heel-to-toe gait pattern, etc. o Use of appropriate assistive device independently with no to minimal Trendelenburg and/or antalgic pattern	***Goals of Phase:*** 1. Provide environment for proper healing of incision site and prevention of postoperative complications 2. Minimize pain and swelling 3. Improve functional hip ROM to within hip precautions 4. Improve functional strength and endurance 5. Normalize gait with appropriate assistive device ***Criteria to Advance to Next Phase:*** 1. Controlled pain and swelling 2. Adequate glute strength of at least 3+/5 3. Safe ambulation with assistive device and no to minimal Trendelenburg and/or antalgic pattern 4. Hip extension ROM to neutral
Phase IV *Motion and Strengthening Phase* *Weeks 4-10* *Expected visits: 6-10* *Total visits: 10-16*	***Specific Instructions:*** • Continue with previous exercise program • Complete 6-minute Walk Test or Stair Climbing Test if appropriate • Driving – as per physician's orders (good limb control and off pain meds) ***Suggested Treatments:*** **ROM:** P/AROM to patient tolerance (progressive extension at 6 weeks) **Manual therapy:** Continue as above including scar mobilization as needed **Stretching** Continue as above focusing on hip flexor **Modalities:** Edema-controlling treatments if appropriate Therapeutic exercise: o Upright bike o Progression of the above exercises with the following additions: o Resistance bands and/or weights o Leg press and multi-hip machine o Advanced closed chain strengthening exercises including ½ depth forward/lateral lunge, sit-to-stand chair/bench squats, ½ depth wall squats, resisted monster walks – forward and lateral o Static and dynamic balance/proprioceptive activities as appropriate- Airex, dynadisc, BAPS, BOSU o Aquatic exercises as needed if incision completely healed Gait Training: o Reinforce normal gait mechanics – equal step length, equal stance time, heel-to-toe gait pattern, etc. o Ambulate without an assistive device in controlled environment and progress as appropriate	***Goals of Phase:*** 1. Progress ROM to patient tolerance (progressive extension at 6 weeks) 2. Improve gait and stair use without AD as able 3. Incision mobility and complete resolution of edema 4. Advance strengthening including functional closed-chain exercises and balance/ proprioceptive activities ***Criteria to Advance to Next Phase:*** 1. Adequate glute strength of at least 4/5 2. Ambulate without AD safely

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Anterior Total Hip Arthroplasty Rehabilitation Guideline

Phase V	Specific Instructions:	Goals of Phase:
Advanced Strengthening and Functional Mobility Stage *Weeks 10+* *Expected visits: 2-4* *Total visits: 12-20*	• Continue previous hip strengthening exercises • Complete FOTO, WOMAC or HOOS JR at time of discharge **Suggested Treatments:** **ROM:** P/AROM to patient tolerance Therapeutic exercise: o Progression of above exercises o Cardiovascular activities including elliptical and stair stepper o Sport-specific activities in preparation for return to physician-approved recreational sport o Advanced long-term HEP instruction Gait Training: normalized gait on even and uneven surfaces	1. Improve glute strength to 4+/5 or better 2. Normalized gait on even and uneven surfaces 3. Return to work/recreational activities 4. Independent with advanced HEP 5. Understanding of avoidance of lifelong restrictions to include high-impact activities such as running, jumping, kicking and heavy manual labor

REFERENCES:

1. Meermans G, Konan S, Das R, Volpin A, Haddad FS. The direct anterior approach in total hip arthroplasty: a systematic review of the literature. *Bone Joint J.* 2017 Jun;99-B(6):732-740.

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