

**Michael S. Bogard, DO**  
**ORTHOPAEDIC SURGEON**  
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Post-Operative Rehabilitation Guidelines/Rehab Protocol  
**Direct Anterior Total Hip Arthroplasty**

**General Guidelines and Precautions**

- Recommend assistance/supervision for 72 hours post-discharge
  - Full hip ROM at 10-12 weeks
    - Limit hip extension per Dr. Bogard's 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 Home Exercise Program (HEP)
      - Determine additional goals and timelines
    - Return to recreational sport
      - Must demonstrate sufficient hip mobility and strength, and obtain physician clearance
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**Phase 0 - PRE OP/Patient Education**

- Patients will likely attend a total joints education class provided by the hospital, if the surgery is scheduled to be done at the hospital
  - Please request to attend total joint replacement class if desired and are scheduled to be in the outpatient surgery center
- **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:
      - Nursing care
      - Therapy services
      - Pharmacy
      - Discharge planning

**PHASE I - Inpatient or 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

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- 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 with the first week post-op or discharging to swing bed or SNF
  - Home Exercise Examples:
    - 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
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

## **PHASE II - Protected Motion and Muscle Activation Phase - Weeks 0-4**

### 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:
    - Recumbent bike
    - Side lying exercises including hip abduction and clam shells
  - Gait Training:

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- 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 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 III - Motion and Strengthening Phase - Weeks 4-10**

Continue with previous exercise program

Driving - as per Dr. Bogard's orders (good limb control and off pain meds) - at least 6 weeks post op

## 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:
    - Upright bike
    - Progression of the above exercises with the following additions:
      - Resistance bands and/or weights
      - Leg press and multi-hip machine
      - 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
      - Static and dynamic balance/proprioceptive activities as appropriate- Airex, dynadisc, BAPS, BOSU
      - 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.
    - Ambulate without an assistive device in controlled environment and progress as appropriate

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Goals of Phase:

1. Progress ROM to patient tolerance (progressive extension at 6 weeks)
2. Improve gait and stair use without AD (assisted device) 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

**PHASE IV - Advanced Strengthening and Functional Mobility Stage - Weeks 10+**

Continue previous hip strengthening exercises

Suggested Treatments:

- ROM: P/AROM to patient tolerance
- Therapeutic exercise:
  - Progression of above exercises
  - Cardiovascular activities including elliptical and stair stepper
  - Sport-specific activities in preparation for return to physician-approved recreational sport
  - Advanced long-term HEP instruction

Gait Training: normalized gait on even and uneven surfaces

Goals of Phase:

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