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# **TOTAL HIP ARTHROPLASTY / HEMI ARTHROPLASTY PROTOCOL**

## **PHASE 1: IMMEDIATE POST SURGICAL PHASE ( DAY 0 – 3)**

### **Goals:**

- Early Cardinal Plane Motion of the operative hip
- Gait Training:
  - Assistive Devices are used to enable the patient to achieve proper weight bearing status on the operative extremity
  - Assistive devices discontinued at discretion of Orthopedic Surgeon
- ***AVOID SIMULTANEOUS / COMBINATION MOVEMENTS OF OPERATIVE HIP***
  - Patients are allowed to:
    - Flex
    - Extend
    - Abduct
    - Adduct
    - Rotate
    - *MUST BE IN THE CARDINAL PLANES OF MOTION*
    - *WITH **NO** RESTRICTION OF MOVEMENT*
    - *ANY COMBINATION OF MOTION DURING THE INITIAL **3 MONTHS** POST OPERATIVE PERIOD **SHOULD BE AVOIDED***

### **Ambulation Guidelines:**

- Weight Bearing Status:
    - 1<sup>st</sup> Six weeks post operative THA will vary from:
      - Patient to Patient
      - Type of Prosthesis
- \*\*\* REFER TO PHYSICIAN'S SPECIFICALLY PATIENT PRESCRIBED PROTOCOL \*\*\*

***\*\*\* No Running or involvement in sporting activities requiring running and / or jumping for 12 weeks post operatively \*\*\****

### **Day 0:**

- Exercises: Should be performed every two hours that patient is awake
  - Isometric Exercises
  - Ankle Pumps
- Begin assisted Bed-to-chair transfers using an assistive device
  - Chair must be appropriate height
- Weight bearing is dependent upon type of prosthesis implanted
- Patients may sit in an upright position if comfortable
- Discuss Post - operative dislocation precautions / Restrictions

### **Day 1:**

- Continue lower extremity isometrics and ankle pumps
- Initiate upper extremity and contralateral limb strengthening exercises
- Begin assisted ambulation on level surfaces using an assistive device
  - Weight bearing status dependent on type of prosthesis used
- Begin discharge planning and home needs assessment
- Review Dislocation precautions / Restrictions

### **Day 2:**

- Review lower extremity isometric and ankle pumping exercises
- Begin supine lower extremity active assisted range of motion exercises
  - Motion is limited to the patients tolerance
  - Within the cardinal planes
- Continue with assisted ambulation on level surfaces
- Reinforce hip dislocation precautions / Restrictions

### **Day 3:**

- Continue comprehensive exercises program with emphasis on increasing hip range of motion and general muscle strength
- Begin sitting exercises
- Refine gait pattern and instruct patient in stair climbing
- Review:
  - Home Exercises
  - Home instructions
  - Emphasize dislocation precautions
- Finalize discharge plans
  - All Patients require:
    - assistive device for ambulation
    - elevated toilet seat
    - follow up appointment with Physical Therapy

## **PHASE II: DAYS 3 – 10**

### **Goals:**

- Achieve functional ROM within Cardinal Plane
- Muscle strengthening of entire hip girdle of the operative extremity
  - Emphasis on hip abductor and extensor muscle groups
  - Attention should be directed toward any weakness present in operative extremity as well as any general weakness in the upper extremities, trunk, or contralateral extremity
- Proprioceptive training to improve body / spatial awareness of the operative extremity in functional activities
- Functional training to promote independence in activities of daily living and mobility

### **Day 3 – 10**

- Modalities for Pain Control and Edema Reduction
  - Ice
- Therapeutic Exercise
  - Gentle Passive ROM
  - Active – Assistive ROM
  - Active ROM
  - Stationary Bike
    - No Resistance to motion
- Balance / Proprioceptive Training
  - Tandem Walking
- Gait Training
  - Level Surface
  - Forward Walking
- Functional Training
  - Standing activities
  - Transfer activities

## **PHASE III: 10 DAYS TO 6 WEEKS**

### **Goals**

- Muscle strengthening of entire hip girdle of the operative extremity
  - Emphasis on hip abductor and extensor muscle groups

- Attention should be directed toward any weakness present in operative extremity as well as any general weakness in the upper extremities, trunk, or contralateral extremity
- Proprioceptive Training to improve body / spatial awareness of the operative extremity in functional activities
- Endurance training to increase cardiovascular fitness
- Functional training to promote independence in Activities of Daily living and mobility
- Gait Training:
  - Assistive Devices are discontinued when the patient is able to ambulate without a positive Trendelenburg test based upon the ambulation guidelines
  - Usually 4 – 6 weeks

### **Day 10 to 6 Weeks:**

- Modalities for Pain Control and Edema Reduction
  - Ice
- Exercises
  - Continue all Previous exercises
  - Lower extremity strengthening exercises using the T-Band
  - Aquatic Therapy / Activities
    - Once incision is completely healed
  - Scar Massage /Mobility
    - May begin once the sutures have been removed and the incision is clean and dry
  - Advance All ROM
    - Active
    - Passive
    - Active – Assist
  - Closed Kinetic Chain Activities
  - Continue Stationary Bike
    - Progress Resistance
- Balance / Proprioception Training
  - Weight Shifting Activities
  - Closed Kinetic Chain Activities
  - Lateral Stepping
    - Over objects
    - Around objects
  - Cone walking
- Gait Training:
  - Level Surface
  - Forward Walking
  - Sidestepping
  - Retro walking

- Uneven Surfaces
- Functional Training
  - Lifting
  - Carrying
  - Pushing
  - Pulling
  - Squatting
  - Crouching
  - Return to work tasks

## **PHASE IV: WEEKS 6 – 12**

### **Weeks 6 – 12:**

- Exercises
  - Continue previous exercises
  - Advance ROM:
    - Active
    - Passive
    - Active Assist
  - Nordic Track
  - Stair Step Machine
  - Develop walking program
  - Continue pool
  - Continue bike
- Endurance Training
  - UBE
  - Ambulation Activities
- Balance / Proprioception Training
  - Obstacle course
- Functional Training
  - Lifting
  - Carrying
  - Pushing
  - Pulling
  - Squatting
  - Crouching
  - Return to sport tasks