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Total Hip Arthroplasty /Hemi Arthroplasty Protocol

PHASE I: Days 0-3

Goals:

- Early cardinal plane motion of the operative hip.
- Gait training: Assistive devices are used to enable the patient to achieve the proper weight bearing status on the operative extremity. These devices are discontinued at the discretion of the Orthopedic Surgeon.
- Avoid SIMULTANEOUS/COMBINATION movements of the operative hip. Patients are allowed to flex, extend, abduct, adduct, or rotate their operative hip in cardinal planes of motion with NO restriction to movement. Any combination of motion during the initial three (3) months, post operative period should be avoided.

Ambulation Guidelines:

- Cemented Prosthesis: Weight bearing as tolerated (WBAT) ambulation. Patients are required to initially use a walker/crutches for a period of time, then are progressed to cane ambulation. The cane is discontinued when the patient is ambulating without a positive Trendelenberg test.
- Uncemented Prosthesis: Patients are required to ambulate using a walker/crutches and partial weight bearing for 6 post-operative weeks. Patients are progressed to WBAT over the following 2 weeks. When patients are able to ambulate without a positive Trendelenberg test, they may ambulate without any assistive devices.
- No running or involvement in sporting activities requiring running and/or jumping for 12 weeks.

POD #0:

- Begin isometric exercises and ankle pumps to leg. Encourage the patient to perform these exercises every two hours while awake.
- Begin assisted bed-to-chair transfers using an assistive device to a chair of appropriate height. Weight bearing status is dependent upon the type of prosthesis implanted. Patients may sit in an upright position if comfortable.
- Discuss post-operative dislocation precautions/restrictions.

Post-Operative 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 upon prosthesis used.
- Begin discharge planning and home needs assessment.
- Review dislocation precautions/restrictions.

Post Operative Day 2:

- Review lower extremity isometric and ankle pumping exercises.
- Begin supine lower extremity active assisted range of motion exercises to the operative extremity. Motions are to the patient's tolerance and in cardinal planes.
- Continue assisted ambulation on level surfaces.
- Reinforce hip dislocation precautions/restrictions.

Post Operative Day 3:

- Continue comprehensive exercise program with emphasis on increasing hip range of motion and general muscle strength in the operative extremity.
- Begin sitting exercises.
- Refine gait pattern and instruct in stair climbing.
- Review home instructions/exercise program with emphasis on hip dislocation/precautions.
- Finalize discharge plans. All patients require an assistive device for ambulation, an elevated toilet seat, and follow-up physical therapy.

Phase II: Days 3-10

Goals:

- Achieve functional hip range of motion, within cardinal planes of movement.
- Muscle strengthening of the entire hip girdle of the operative extremity with emphasis on hip abductor and extensor muscle groups. Attention should also be directed toward any weakness present in the operative extremity as well as any generalized weakness in the upper extremities, trunk or contralateral lower 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.

Modalities for Pain Control and Edema Reduction:

- Moist Heat
- Ice

Therapeutic Exercise:

- Gentle Passive, Active-Assisted, and active lower extremity range of motion
- Stationary Biking - No resistance to motion

Balance/Proprioception 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 the entire hip girdle of the operative extremity with emphasis on hip abductor and extensor muscle groups. Attention should also be directed toward any weakness present in the operative extremity as well as any generalized weakness in the upper extremities, trunk or contralateral lower 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 Trendelenberg test based upon the ambulation guidelines (usually 4-6 weeks).

Modalities for Pain Control and Edema Reduction:

- Moist Heat
- Ice

Exercises

- Continue previous exercises
- Lower Extremity Strengthening Exercises using Theraband
- Aquatic Therapy/Activities
- Iliotibial Band Stretches-Supine
- Scar Massage/Mobility-May be instituted after suture removal when the incision is clean and dry.
- Advance Passive, Active-Assisted, and active lower extremity range of motion
- Closed Kinetic Chain Activities
- Continue stationary bike, progress resistance

Balance/Proprioception Training:

- Weight-Shifting Activities
- Closed Kinetic Chain Activities
- Lateral Stepping over/around objects

Gait Training:

- Level Surface
- Forward Walking
- Sidestepping
- Retro Walking
- Uneven Surfaces

Functional Training

- Lifting
- Carrying
- Pushing or Pulling
- Squatting or Crouching
- Return-To-Work Tasks

Phase IV 6-12 weeks:

Exercises:

- Continue previous exercises

- Advance Passive, Active-Assisted, and active lower extremity range of motion
- Nordic Track
- Stair-Step Machine
- Iliotibial Band Stretches- standing at twelve (12) weeks post-operatively
- Develop walking program
- Continue pool and bike work

Endurance Training:

- UBE
- Ambulation Activities

Balance/Proprioception Training:

- Obstacle Course

Functional Training

- Lifting
- Carrying
- Pushing or Pulling
- Squatting or Crouching
- Return to sport tasks