Post-Operative Rehabilitation Protocol Following TOTAL KNEE REPLACEMENT

PRE-OPERATIVE PHYSICAL THERAPY

The patient is generally seen for a pre-operative physical therapy session which includes:

- Review of the TKR protocol
- Instruction for continuous passive motion (CPM) use and range of motion (ROM) exercises
- Ambulation training with standard walker and cane on level surfaces
- Stair training
- Education on the importance of ice
- Discussion on goals for discharge from the hospital
- Review of the financial obligation for home ambulation device

PHASE I : EARLY FUNCTION (WEEKS 1-2)

Goals:

1. Demonstrate safe and independent transfers from bed and various surfaces
2. Demonstrate safe and independent ambulation with appropriate assistant device
3. Negotiate steps safely with wide based quad cane (WBQC) or crutches/walker
4. Demonstrate fair to good static and dynamic balance with appropriate assistant device
5. Attain full extension (0°) and 100° flexion of the involved knee
6. Demonstrate home exercise program (HEP) accurately

FOCUS

- Ice involved knee for 15-30 minutes for minimum of 3 times per day (more if necessary)
- Review and perform all bedside exercises which include ankle pumps, quadriceps sets, gluteal sets, and heel slides
- Sit at the edge of bed with necessary assistance
- Ambulate with standard walker with minimal assistance
- Sit in a chair as much as possible
- Actively move knee as much as possible
- Continuing as above with emphasis on improving ROM, performing proper gait pattern with assistant device, decreasing pain and swelling, and promoting independence with functional activities
- Perform bed exercises independently 5 times per day

PHASE II: PROGRESSIVE FUNCTION (WEEKS 2-5)

Goals:

7. Progress from WBQC to straight cane
8. Improve involved lower extremity strength and proprioception
9. Improve static and dynamic balance to good-normal
10. Maximize function in the home environment
11. Attain 0-125° active knee motion

Weeks 2-3

- Monitor incision site and swelling
- Continue with HEP
- Progress ambulation distance (increase 1/2 block to 1 block each day) with WBQC
- Begin stationary bicycle with supervision for 5-10 minutes
- Begin standing wall slides. DO NOT ALLOW THE KNEES TO MOVE FORWARD OF THE TOES
- Incorporate static and dynamic balance exercises
- AROM 0-115°

WEEKS 3-4

- Continue as above
- Practice with straight cane indoors
- Increase stationary bicycle endurance to 10-12 minutes, twice per day
- Attempt unilateral stance on the involved leg and side stepping
- Incorporate gentle semi-squats (BODY WEIGHT ONLY) concentrating on eccentric control of the quadriceps
- Attain AROM 0-120°

WEEKS 4-5

- Continue as above
- Ambulate with straight cane only
- Increase stationary bicycle to 15 minutes, twice per day
- Progress with gentle lateral exercises, i.e. lateral stepping, carioca
- Attain AROM 0-125°

PHASE III: ADVANCED FUNCTION (WEEKS 6-8)

Goals:

12. Progress to ambulating without an assistive device
13. Improve static and dynamic balance to normal without assistive device
14. Attain full AROM (0-135°)
15. Master functional tasks within the home environment

WEEKS 6-7

- Continue as above
- Ambulate indoors WITHOUT device

- Focus exercises on strength and eccentric control of muscles. DO NOT USE CUFF WEIGHTS UNTIL CLEARANCE FROM SURGEON
- Focus on unilateral balance activities
- Continue aggressive AROM exercise to promote knee range of motion 0-135°

WEEKS 7-8

- Continue as above
- Develop and instruct patient on advance exercise program for continued strength and endurance training
- Ambulate without straight cane

This protocol is designed to be administered by a licensed physical therapist and/or certified athletic trainer. Please do not hesitate to contact our office should you have any questions concerning the rehabilitation process.