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TOTAL KNEE ARTHROPLASTY PROTOCOL

PHASE 1: IMMEDIATE POST SURGICAL PHASE (DAY 0 – 10)

Goals:

- Achieve Quad Contraction
- Safe Independent Ambulation with Walker or crutches as needed
- Passive knee extension to 0 degrees
- Knee Flexion to 90 degrees or greater
- Control:
 - Inflammation
 - Swelling
 - Bleeding

Day 0 - 2:

- Weight bearing as tolerated (***Unless otherwise Specified by Physician***)
 - Walker
 - 2 crutches (***If Balance is Sufficient***)
- Cryotherapy
 - ***Immediately and continuously***
 - unless ambulating
- ROM of knee to begin immediately post operatively
- Exercises:
 - Ankle Pumps
 - Passive knee extension to 0 degrees
 - Straight Leg Raises
 - Quad Sets
 - Knee Flexion to at least 90 degrees
 - Knee Extension to 0 degrees
 - Instruct:
 - Gait Training
 - Safe Transfers

Day 3 – 10

- Weight Bearing as tolerated
 - Walker
 - Two crutches
- Cryotherapy
- Exercises
 - Ankle Pumps
 - Passive Knee extension to 0 degrees
 - Straight Leg Raises
 - Quad Sets
 - AAROM:
 - Knee Flexion to at least 90 degrees
 - Hip Abduction / Adduction
 - Instruct
 - Gait Training
 - Safe Transfers
 - Start Stationary Bike
 - Low Resistance

PHASE II: MOTION PHASE (WEEK 2 – 6)

Goals

- Improve ROM
- Enhance Muscular Strength and endurance
- Dynamic Joint Stability
- Diminish Swelling / Inflammation
- Establish / Return to functional Activities

Criteria to enter Phase II

- Leg Control
 - Able to perform Straight Leg Raise
- Active ROM
 - 0 - 90 degrees
- Minimal Pain / Swelling
- Independent
 - Ambulation
 - Transfers

Weeks 2 – 4

- Weight Bearing with Assistive device as needed
- Wean from a walker to a cane OR from 2 crutches to 1 crutch **by 2 weeks**
- Wean off Assistive Device **Completely by no later than 4 weeks**
- Exercises

- Quad Sets
 - VMO Recruitment
- Straight Leg Raises
 - VMO Recruitment
- Knee Extension 90 – 0 degrees
- Terminal Knee Extension 45 – 0 degrees
- Hip Abduction / Adduction
- Hamstring curls
- Knee Flexion to at least 115 degrees
- Stretches
 - Hamstrings
 - Gastrocnemius
 - Soleus
 - Quads
 - Passive Knee Extension Stretch
- Continue Stationary bike
 - Advance Resistance as tolerated
- Continue with Cryotherapy
- Patellofemoral Mobilization
- Incision Mobilization
- Patients may begin to drive
 - **IF** no longer using assistive devices for ambulation
 - *Approx. 2 weeks post op*

Weeks 4 – 6

- Exercises
 - Continue previous exercises
 - Initiate step ups
 - Front
 - Lateral
 - Advance resistance on stationary bike
 - Initiate progressive walking program
 - Initiate endurance pool programs
 - Swimming with flutter kicks
 - Return to functional Activities

***** Continue compression, ice, elevation as needed for swelling. Patients *should be walking and driving independently* at this point *****

PHASE III: INTERMEDIATE PHASE (WEEKS 7 – 12)

Goals

- Progression of ROM to greater than 115 degrees
- Enhancement of strength and endurance
- Eccentric / Concentric control of Lower Extremity
- Cardiovascular Fitness
- Functional Activity Performance

Criteria To Enter Phase III

- Range of Motion = 0 – 115 Degrees
- Voluntary Quad Control
- Independent Ambulation
- Minimal Pain

Weeks 7 – 12

- Exercises
 - Continue:
 - Previous Exercises
 - Pool Activities
 - Walking
 - Stationary Bike
 - Aggressive AROM 0 – 115 degrees
 - Strengthen Quadriceps / Hamstrings

PHASE IV: ADVANCED ACTIVITY PHASE (WEEKS 12 AND BEYOND)

Goals:

- Allow patients to return to advanced level of function
 - Recreational Sports
- Maintain / Improve strength and endurance of lower extremity
- Return to normal life and routine

Criteria to enter Phase IV:

- Full Non Painful ROM 0 – 115 degrees
- Strength 90% of contralateral lower extremity (if that extremity is normal)
- Minimal Pain and swelling
- Satisfactory clinical Examination

Week 12 and Beyond

- Exercises
 - Quad sets
 - Straight leg raises
 - Step ups
 - Hip abduction / adduction
 - Knee extension
 - Stationary bike
 - Swimming
 - Walking
 - Stretching 0 – 115 degrees

***** *Return to Pre – operative Activities and Develop HEP to Maintain Function of Leg* *****

***** NO SQUATS OR LUNGES AT ANY TIME *****