

## **Jennifer L. Cook, MD**

Florida Joint Replacement and Sports Medicine Center

5243 Hanff Lane

New Port Richey, FL 34652

Phone: (727)848-4249 Fax: (727)841-8934

### **DISTAL REALIGNMENT REHABILITATION PROGRAM**

#### **I. IMMEDIATE POST-OPERATIVE PHASE (Day 1-Day 5)**

##### Goals:

- Diminish swelling/inflammation (control hemarthrosis)
- Diminish post operative pain
- Initiate voluntary quadriceps control
- Independent Ambulation

##### Brace:

- Brace for ambulation only (POD 1-Week 4)

##### Weight Bearing:

- As tolerated two crutches
- Partial Weight Bearing (PWB)  
- (approx. 50% WB)

##### Swelling/Inflammation Control:

- Cryotherapy
- Compression bandage
- Elevation & ankle pumps

##### Range of Motion:

- Full passive knee extension
- Flexion 0° - 30° for 2 weeks and progress as per MD instructions
- PROM and gentle AAROM only

##### Muscle Retraining:

- Quadriceps setting isometrics
- Straight leg raises (flexion)
- Hip Adduction/Abduction
- \*NO active knee extension

##### Flexibility:

- Hamstring and calf stretches
- PROM/AAROM within ROM limitations

#### **II. ACUTE PHASE (Week 2-4)**

##### Goals:

- Control swelling and pain
- Promote healing of realignment tibial tuberosity
- Quadriceps strengthening

##### Brace:

- Continue brace for ambulation only
- Discontinue brace (week 4)

##### Weight Bearing:

- Progress PWB (2 crutches for 4 weeks)

Swelling/Inflammation:

- Continue use of cryotherapy
- Compression bandage
- Elevation

Range of Motion:

- PROM/AAROM exercises
- Range of Motion as per MD instructions week 2-4

Muscle Retraining:

- Electrical muscle stimulation to quads
- Quad setting isometrics
- Straight leg raises (flexion)
- Hip Adduction/Abduction
- Hip extension

Week 4:

-Light leg press if good quadriceps control

Flexibility:

- Continue hamstring, calf stretches

**III. SUBACUTE PHASE – “MOTION” PHASE (Week 5-8)**

Goals:

- Gradual improvement in ROM
- Improve muscular strength and endurance
- Control forces on extension mechanism

Weight Bearing:

- One crutch (week 4-6)
- Discontinue crutch week 6

Range of Motion:

- PROM 0-115° (week 5)
- PROM 0-125° (week 6)
- PROM 0-125/135° (week 8)

Exercises:

- Continue electrical muscle stimulation to quadriceps
- Quadriceps setting isometrics
- Hip adduction, abduction, and extension
- Leg press
- Knee extension light (0-60°)
- Bicycle (week 6-8)
- Pcol program [walking, strengthening (when able)]

Flexibility:

- Continue all stretching exercises for LE

**IV. STRENGTHENING PHASE (Week 9-16)**

Goals:

- Gradual improvement of muscular strength
- Functional activities/drills

Criteria to progress to phase IV:

- ROM at least 0-115°
- Absence of swelling/inflammation
- Voluntary control of quads

Exercises:

- Wall squats (0-60°)
- Leg press
- Lateral step-ups
- Knee extension (60-0°)
- Hip adduction/abduction
- Bicycle
- Stairmaster

**V. RETURN TO ACTIVITY PHASE**

Goal:

- Functional return to specific drills

Criteria to progress to phase V:

- Full non-painful ROM
- Appropriate strength level (80% or greater of contralateral leg)
- Satisfactory clinical exam

Exercises:

- Functional drills
- Strengthening exercises
- Flexibility exercises