

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 (approx. 50% WB)

Swelling/Inflammation Control:

- Cryotherapy
- Compression Bandage
- Elevation & Ankle Pumps

Range of Motion:

- Full passive knee extension
- Flexion to 45 degrees (Day 1 to 4)
- Flexion to 60 degrees (Day 5)
- 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 WBAT (2 crutches for 4 weeks)

Swelling/Inflammation:

- Continue use of cryotherapy
- Compression bandage
- Elevation

Range of Motion:

- PROM/AAROM exercises
- Range of Motion 0-75 degrees (Week 1-3)
- Range of Motion 0-90 degrees (Week 4)

Muscle Retraining:

- Electrical muscle stimulation to quads
- Quad Setting Isometrics
- Straight Leg Raises (flexion)
- Hip Adduction/Abduction
- Hip Extension
- Gentle submaximal isometric knee extension (multi-angle)

Week 4:

- Light Leg Press
- Vertical Squats (no weight)

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

Exercises:

- Continue electrical muscle stimulation to quadriceps
- Quadriceps setting isometrics
- Hip adduction, abduction, and extension
- Vertical Squats
- Leg Press
- Knee Extension Light (0-60 degrees)
- Bicycle (week 6-8)
- Pool 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:

1. ROM at least 0-115 degrees
2. Absence of swelling/inflammation
3. Voluntary control of quads

Exercises:

- Vertical Squats (0-60 degrees)
- Wall Squats (0-60 degrees)
- Leg Press
- Forward Lunges
- Lateral Lunges
- Lateral Step-ups
- Knee Extension (60-0 degrees)
- Hip Adduction/Abduction
- Bicycle
- Stairmaster®

V. RETURN TO ACTIVITY PHASE

Goal: Functional return to specific drills

Criteria to Progress to Phase V:

1. Full Non-Painful ROM
2. Appropriate Strength Level (80% or greater of contralateral leg)
3. Satisfactory clinical exam

Exercises:

- Functional Drills
 - Strengthening Exercises
 - Flexibility Exercises
-