

Therapist _____

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)

<u>Swelling/Inflammation:</u>	Continue use of cryotherapy Compression bandage Elevation
<u>Range of Motion:</u>	PROM/AAROM exercises Range of Motion 0-75 degrees (Week 1-3) Range of Motion 0-90 degrees (Week 4)
<u>Muscle Retraining:</u>	Electrical muscle stimulation to quads Quad Setting Isometrics Straight Leg Raises (flexion) Hip Adduction/Abduction Hip Extension <u>Gentle</u> submaximal isometric knee extension (multi-angle)
<u>Week 4:</u>	Light Leg Press Vertical Squats (no weight)
<u>Flexibility:</u>	Continue Hamstring, Calf Stretches

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

<u>Goals:</u>	Gradual improvement in ROM Improve muscular strength and endurance Control forces on extension mechanism
<u>Weight Bearing:</u>	One crutch (week 4-6) Discontinue crutch week 6
<u>Range of Motion:</u>	PROM 0-115 degrees (week 5) PROM 0-125 degrees (week 6) PROM 0-125/135 degrees (week 8)
<u>Exercises:</u>	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)]
<u>Flexibility:</u>	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

JRA: 1/89, Revised KEW: 12/96