



Distal Femoral Osteotomy Post-op Rehab Protocol

GENERAL REHABILITATION GUIDELINES AND PRINCIPLES:

EXPECTED RECOVERY:

- Begin CPM immediately after surgery. Use for 2-4 weeks at 0-120 degrees
- Begin Physical Therapy within 3 days of surgery
- Follow up with physician 10-14 days after surgery. Return to physician again in four weeks for follow up x-rays
- Brace locked in full extension for ambulating for 6-10 weeks
- NWB: weeks 0-2 (until first post-op visit)
- TTWB: weeks 2-6
- PWB: weeks 6-10
- FWB: week 10
- **No open chain knee extension or knee flexion for 3 months**
- Back to work within 2-3 weeks following surgery for sit down jobs
- Back to light duty work within 2-3 months following surgery for labor type jobs

WOUND CARE:

- **Must** use shower chair
- Can shower as long as bandages covered with waterproof covering for 10-14 days (until seen in clinic for first post op visit). May use saran wrap around knees with tape securely on top and bottom.
- Change bandages daily
- May shower without covering wound at 14 days after surgery making sure to dry wound thoroughly. (No soaking in bath or hot tub for 28 days)
- If bandages are bloody may clean wounds using hydrogen peroxide. Pat dry. Some seepage may occur for several days following surgery.
- Reapply elastic/compression stocking until swelling is minimal.

PAIN/SWELLING CONTROL:

- **Rest** – Avoid long periods of standing/walking/strenuous activity
- **Ice** – 3 times a day for 20 minutes each, following rehab/activity/work or as needed to control pain and swelling
- **Compression** – Apply ACE bandage to involved knee (tighter at bottom).
- **Elevation** – Keep leg (knee) elevated as often as possible.
- **Medication** – pain and anti-inflammatory medications will be prescribed.

PHASE I: INITIAL POST-OP – 0-2 WEEKS

Weight Bearing: NWB with Crutches
Brace: Locked in brace at 0 degrees when ambulating
ROM: 0-90 degrees

Therapeutic exercises

ROM: heel slides, seated flexion, prone knee flexion, stationary bike for AAROM, prone hangs.

Strengthening: Quad sets/ham sets/glut sets, SLR X 4 ways, ankle pumps, Ankle strengthening

Stretching: Gentle stretching of hamstrings, calves

Modalities: E-Stim for pain and swelling control
E-Stim for quad contraction sub-max with quad set (only)
Ice

Goals: Achieve full knee extension equal to the uninvolved side.
Eliminate swelling
Achieve at least 90 degrees of knee flexion

PHASE II: 2-6 WEEKS

Weight Bearing: TTWB
Brace: Continue brace locked at full extension when ambulating
ROM: Knee flexion to 120 – 130 degrees

Therapeutic Exercises

ROM: heelslides, seated flexion, prone knee flexion, stationary bike for AAROM, prone hangs.

Strengthening: SLR X 4 ways supine/sidelying and standing; Quad Sets; ankle strengthening; seated hip ABD with t-band; seated hip ADD with ball squeeze.

Core: Supine strengthening i.e. pelvic tilt, dead bugs

Stretching: Gentle stretching of hamstrings, calves
Passive gentle stretching of quads and hip flexors

Modalities: E-Stim for pain and swelling control
E-Stim for quad contraction sub-max with quad set (only)
Ice

Goals: Achieve full extension equal to the uninvolved side
Achieve at least 120 degrees of knee flexion
Eliminate swelling
SLR without quad lag

PHASE III: 6-12 WEEKS

Weight Bearing: PWB – Progress to full weight bearing (week 6-10)
Brace: May DC brace when has good quad control:
1. SLR without extensor lag
2. Full extension ROM with active quad set
3. 4" step up X 15 (slow and controlled i.e. no dropping hip, no forward trunk lean, and smooth movement with good quad control)
4. Normalized gait pattern once brace has been DC'd
ROM: Full ROM to 135 degrees

Therapeutic Exercises

ROM: PROM as needed, stationary bike, Nu-Step level 1
Strengthening: Standing knee flexion (no wt.), wall slides, heel raises, mini squats, stool scoots, lunges, monster walk, side step with T-band
Proprioceptive Ex: Weight shifts with brace at 0 degrees extension (F/B, L/R, diagonals); Single limb stance. Progress as tolerated on gradually less stable surfaces, eyes closed, perturbation training, etc.
Gait: Gait training in clinic with brace open to facilitate quads
Core: Progress to standing exercises
Stretching: Gentle stretching of hamstrings, calves
Passive gentle stretching of quads and hip flexors
Modalities: E-Stim for pain and swelling control as needed
E-Stim for quad contraction sub-max with quad set (only)
Ice
Goals: Eliminate swelling
Full ROM 0-135 degrees/equal to uninvolved.
FWB by 8-10 weeks

PHASE V: 12-16 WEEKS

Weight Bearing: Ambulate pain free with no gait deviations

Therapeutic Exercises:

ROM: Continue as needed
Strengthening: Leg press; step-ups multi directions; open chain knee extension, hamstring, curls; Stairmaster: forward and retro; mini-squat progress to under cord
Proprioceptive Ex: Begin static, dynamic SLB activities (eyes open/closed, head nods, arm movement), forward dips, ball tosses
Stretching: Continue as needed
Modalities: Continue as needed

Goals: ROM equal to opposite knee
Controlled effusion
Pain-free
Quad strength 4/5

PHASE VI: 16-32

Therapeutic Exercises:

ROM: Continue as needed

Strengthening: Continue as above progress to Slide board and fitter, 24 weeks may add jumping on leg press with both legs with light weight

Proprioceptive Ex: Static, dynamic SLB activities (eyes open/closed, head nods, arm movement), forward dips, ball tosses, etc.

Stretching: Continue as needed

Modalities: Continue as needed

CV Conditioning: Begin straight ahead jogging on "soft level surface". Gradually incorporate turns/cutting. Progress to cutting and agility drills

Sport Specific: Begin Sport specific training

Goals: Strength 5/5
ROM equal to opposite knee
Controlled effusion
Pain free