• Phase I – Immediate Post Surgical Phase (Week 0-2)
  o Goals:
    ▪ Protection of post-surgical knee
    ▪ Gradually increase ROM
    ▪ Decrease pain and inflammation
    ▪ Prevent muscular inhibition
    ▪ Restore leg control
  o Cryotherapy for pain/inflammation
    ▪ Ice 15-20 minutes every hour
  o Sleeping
    ▪ Sleep in brace
  o Weight Bearing (may be modified in certain situations)
    ▪ Femoral condyle lesions
      • NWB
  o Brace
    ▪ Hinged brace locked in extension at all times
    ▪ Remove for CPM and exercises only
    ▪ Typically discontinued after 2 weeks
  o ROM
    ▪ Prone hangs
    ▪ Knee extension on a bolster
    ▪ Supine wall slides
    ▪ PROM off end of table as tolerated without pain
    ▪ CPM machine 6 hrs/day, beginning at 0-40 degrees, progressing 5-10 degrees per day as tolerated
  o Muscle Retraining
    ▪ Quadriceps isometrics, SLR
  o Patellar mobilizations
  o Note: ROM exercises should be carried out frequently throughout the day with several repetitions in order to remodel the developing knee fibrocartilage. The goal for the first 6 weeks is 4-8 hours of ROM exercises per day

• Phase II – Protection Phase (Week 2-6)
• Goals
  - Allow healing of soft tissue/bone
  - Do not overstress healing tissue
  - Gradually increase ROM
    - Progression based on swelling/inflammation and guidelines below
  - Decrease pain and inflammation

• Brace
  - Typically discontinue brace after 2 week visit

• Weight bearing
  - Femoral condyle lesions
    - NWB until 6 weeks

• ROM guidelines
  - Exercises as above
  - CPM continue to advance as above
  - PROM/AAROM to tolerance

• E-stim to quads
• Quad isometrics
• SLR
• May begin pool activity at week 5 in chest-deep water

• Phase III – Intermediate Phase (Week 6-12)
  • Goals
    - Gradual improvement in ROM
    - Eliminate swelling
    - Normalize gait
  • Criteria to progress to Phase III
    - 6 weeks post-op
    - No effusion
    - Full extension
  • Precautions
    - Avoid post-activity swelling
    - Avoid loading knee at deep flexion angles
    - No impact activities until 12 weeks post-op
  • Weight bearing
    - Advance 25% weekly until FWB
  • ROM
    - Full motion as tolerated
  • Continue quadriceps strengthening
  • Continue above exercises
  • Gait drills
  • Stationary bicycle
  • Hip/core strengthening
  • Closed chain quad exercises at <60 degrees flexion
• Phase IV – Strengthening Phase (Week 12-20)
  o Goals
    ▪ Maintain full ROM
    ▪ Improve limb strength and endurance
    ▪ Gradual return to functional activities
  o Criteria to progress to Phase IV
    ▪ Full, non-painful ROM
    ▪ Absence of swelling/inflammation
    ▪ Good control of affected limb
    ▪ Normal gait on all surfaces
    ▪ Single-leg balance >15 seconds
  o Precautions
    ▪ Post-activity soreness should resolve in <24 hours
    ▪ Avoid knee pain with impact
  o Continue above exercises
  o Movement control exercises
    ▪ Begin with single plane activities and progress
  o Sport specific activities when cleared by Dr. Hess