

maintaining zero degrees passive extension
- PROM 0-125 degrees at 4 weeks

KT 2000 Test – (Week 4, 20 lb. anterior and posterior test)

Week 4

Exercises:

- *Progress isometric strengthening program
- *Leg Press (0-100 degrees)
- *Knee extension 90 to 40 degrees
- *Hamstring Curls (isotonics)
- *Hip Abduction and Adduction
- *Hip Flexion and Extension
- *Lateral Step-Overs
- *Lateral Lunges (straight plane and multi-plane drills)
- *Lateral Step Ups
- *Front Step Downs
- *Wall Squats
- *Vertical Squats
- *Standing Toe Calf Raises
- *Seated Toe Calf Raises
- *Biodex Stability System (Balance, Squats, etc)
- *Proprioception Drills
- *Bicycle
- *Stair Stepper Machine
- *Pool Program (Backward Running, Hip and Leg Exercises)

Proprioception/Neuromuscular Drills

- Tilt board squats (perturbation)
- Passive/active reposition OKC
- CKC repositioning on tilt board
- CKC lunges

Week 6

Brace: Continue locked brace for 6 weeks

KT 2000 Test – 20 and 30 lb. anterior and posterior test

Exercises:

- *Continue all exercises
- *Pool running (forward) and agility drills
- *Balance on tilt boards
- *Progress to balance and ball throws
- *Wall slides/squats

Week 8

Brace: Unlocked brace for ambulation

KT 2000 Test – 20 and 30 lb. anterior and posterior test

Exercises:

- *Continue all exercises listed in Weeks 4-6
- *Leg Press Sets (single leg) 0-100 degrees and 40-100 degrees
- *Plyometric Leg Press
- *Perturbation Training

- *Isokinetic exercises (90 to 40 degrees) (120 to 240 degrees/second)
- *Walking Program
- *Bicycle for endurance
- *Stair Stepper Machine for endurance
- *Biodex stability system
- *Tilt board squatting

Week 10

KT 2000 Test – 20 and 30 lb. and Manual Maximum Test

Isokinetic Test – Concentric Knee Extension/Flexion at 180 and 300 degrees/second

- Exercises:**
- *Continue all exercises listed in Weeks 6, 8 and 10
 - *Plyometric Training Drills
 - *Continue Stretching Drills
 - *Progress strengthening exercises and neuromuscular training

IV. ADVANCED ACTIVITY PHASE (Week 10-16)

Criteria to Enter Phase IV

- 1) AROM 0-125 degrees or greater
- 2) Quad strength 75% of contralateral side, knee extension flexor:extensor ratio 70% to 75%
- 3) No change in KT values (Comparable with contralateral side, within 2 mm)
- 4) No pain or effusion
- 5) Satisfactory clinical exam
- 6) Satisfactory isokinetic test (values at 180 degrees)
 - Quadriceps bilateral comparison 75%
 - Hamstrings equal bilateral
 - Quadriceps peak torque/body weight 65% at 180°/s (males) 55% at 180°/s (females)
 - Hamstrings/quadriceps ratio 66% to 75%
- 7) Hop Test (80% of contralateral leg)
- 8) Subjective knee scoring (modified Noyes System) 80 points or better

Goals: Normalize lower extremity strength
Enhance muscular power and endurance
Improve neuromuscular control
Perform selected sport-specific drills

- Exercises:**
- *May initiate running program (weeks 14-16)
 - *May initiate light sport program (golf)
 - *Continue all strengthening drills
 - Leg press
 - Wall squats
 - Hip Abd/Adduction
 - Hip Flex/Ext
 - Knee Extension 90-40
 - Hamstring curls
 - Standing toe calf
 - Seated toe calf
 - Step down

- Lateral step ups
- Lateral lunges
- *Neuromuscular training
 - Lateral step-overs cones
 - Lateral lunges
 - Tilt board drills

Week 14-16

- *Progress program
- *Continue all drills above
- *Backward running light

V. RETURN TO ACTIVITY PHASE (Weeks 20-268)

- No formal running or sport agility or cutting until cleared by Physician ****

Criteria to Enter Phase V

- 1) Full Range of Motion
- 2) Unchanged KT 2000 Test (within 2.5 mm of opposite side)
- 3) Isokinetic Test that fulfills criteria
- 4) Quadriceps bilateral comparison (80% or greater)
- 5) Hamstring bilateral comparison (110% or greater)
- 6) Quadriceps torque/body weight ratio (55% or greater)
- 7) Hamstrings/Quadriceps ratio (70% or greater)
- 8) Proprioceptive Test (100% of contralateral leg)
- 9) Functional Test (85% or greater of contralateral side)
- 10) Satisfactory clinical exam
- 11) Subjective knee scoring (modified Noyes System) (90 points or better)

Goals: Gradual return to full-unrestricted sports
Achieve maximal strength and endurance
Normalize neuromuscular control
Progress skill training

Tests – KT 2000, Isokinetic, and Functional Tests before return

- Exercises**
- *Continue strengthening exercises
 - *Continue neuromuscular control drills
 - *Continue plyometrics drills
 - *Initiate running program (month 5)
 - *Progress sport specific training
 - Running/cutting/agility drills (Month 6)
 - Gradual return to sport drills
 - Gradual return to sports (Month 6)
 -

6 MONTH FOLLOW-UP

Isokinetic test
KT 2000 test
Functional test

12 MONTH FOLLOW-UP

Isokinetic test
KT 2000 test
Functional test