PHYSICAL THERAPY PRESCRIPTION

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DIAGNOSIS (LEFT / RIGHT) <u>CARTILAGE REPAIR</u> (MICROFRACTURE / OATS / ALLOGRAFT OATS) (MEDIAL FEMORAL CONDYLE / LATERAL FEMORAL CONDYLE / TROCHLEA / PATELLA)

DATE OF SURGERY

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PHASE 1 EARLY 0-6 WEEKS

**Knee brace thru 6 weeks

**Non-weightbearing with crutches x6 weeks (TTWB ok for patella/trochlea)

ROM Exercises: Week 0 - 6: 0-110 degrees

(goal 90 degrees flexion by week 3, 110 degrees by week 6)

Isometric quad sets and SLR: --start immediately post-op

--wear knee brace during SLR

--may apply e-stim for poor quad function

Pre Progression – Emphasize VMO Strengthening

- Multiple angle isometrics
- Eccentric closed chain isotonics
- Concentric closed chain isotonics
- Eccentric open chain isokinetics (performed in 90-30 deg arc)
- Concentric open chain isokinetics, submaximal
- Eccentric open chain isotoinics
- Concentric open chain isotonics, submaximal
- Concentric open chain isotonics, maximal
- ➤ Gentle multi-directional patella mobilization immediately after surgery
- ➤ Massage/deep friction to hamstring insertions, suprapatellar quadriceps, medial/lateral gutters, and infrapatellar regions 2-3 weeks post-op
- > Hamstring/adductor/abductor/quadriceps/Achilles stretching
- ➤ Whirlpool therapy if available at 2-3 weeks post-op to enhance motion
- ➤ Stationary bicycle with no resistance once 90 degrees knee flexion obtained (~4 weeks)
- ➤ Anti-inflammatory modalities as needed (US/massage/e-stim)

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> Cryotherapy and compression stockings/TEDS for swelling and pain control

PHASE 2 TRANSITIONAL PHASE

**Weight-bearing status: Progressive weight-bearing

week 7: PWB 1/2 body weight using crutches

week 8: FWB using crutches

week 9: FWB with single crutch or cane

week 10 FWB with no walking aid

ROM Exercises: continue full AROM and gentle PROM exercises

- Low weight (max 10-20lbs.) open-chain leg extension and curl
- Stationary bicycle with gradual increased tension per level of comfort
- Continue quad sets, SLR in brace, leg curl and heel slides
- Strengthen quads, hamstrings, and hip abductors/extensors using ankle weights and/or elastic band resistance through full ROM as tolerated
- Gentle closed-chain terminal knee extension 0-40 degrees (TKE) permitted starting at 9-10 weeks as tolerated per weight bearing restriction
- > Continue multi-directional patella mobilization
- Hamstring/adductor/abductor/quadracept/Achilles stretching
- > Whirlpool therapy if available to enhance motion and quadracept/hamstring muscle control
- ➤ E-stim for VMO/quadracept muscle re-education/biofeedback as needed
- ➤ Gentle massage/deep friction to hamstring insertions, suprapatellar quadracepts, medial/lateral gutters, and infrapatellar regions
- > Activity level should be modified if increased pain, catching, or swelling occurs

PHASE 3: REMODELING PHASE 13 WEEKS+

**Weight-bearing status: full weight-bearing as tolerated with crutch or cane as needed/pain allows

ROM Exercises: continue full AROM and gentle PROM exercises CPM may be discontinued

Therapy

- Resisted open-chain exercise with </= 20lbs to be progressed as tolerated after 6mos
- Closed-chain exercise to promote knee stability and proprioception through full ROM as tolerated
- Cycling on level surfaces permitted with gradual increase in tension per level of comfort
- Treadmill walking encouraged
- Rollerblading permitted at 6-7 months
- Continue multi-directional patella mobilization
- > Hamstring/adductor/abductor/quadracept/Achilles stretching

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- > Whirlpool therapy if available to enhance motion and quadracept/hamstring muscle control
- > E-stim for VMO/quadracept muscle re-education/biofeedback as needed
- ➤ Gentle massage/deep friction to hamstring insertions, suprapatellar quadracepts, medial/lateral gutters, and infrapatellar regions
- > Activity level should be modified if increased pain, catching, or swelling occurs
 - **no pivoting sports should be started without MD clearance
 - **no squats, no leg presses allowed

Treatment:	_ times per week	Duration:	weeks
Physician's Signature:			
Icel Weber MD Orthonaedic Surgeon			