

UT★ORTHO

A Part of UT Physicians

MPFL Reconstruction

Post-Operative Rehabilitation Protocol

Ironman Sports Medicine Institute

1st Edition

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MPFL Reconstruction

PHASE 1 - ACUTE (0-6 Weeks)

PHASE GOALS: PROTECT REPAIR, RESTORE AMBULATION & ADL STATUS

RANGE OF MOTION

0-1 WEEK - ALLOW FLEXION TO 30 DEGREES

1-2 WEEKS - GRADUALLY PROGRESS FLEXION TO 60 DEGREES

2-4 WEEKS - GRADUALLY PROGRESS FLEXION TO 90 DEGREES

4-6 WEEKS - GRADUALLY PROGRESS FLEXION TO 120 DEGREES

WEIGHT BEARING

0-2 WEEKS - PARTIAL WEIGHT BEARING

2+ WEEKS - WBAT

BRACE & CRUTCH USE

0-1 WEEKS - BRACE LOCKED IN FULL EXTENSION

2-4 WEEKS - OPEN BRACE TO 60 DEG *WITH GOOD QUAD CONTROL

4-6+ WEEKS - OPEN TO FULL & DISCHARGE WHEN GAIT IS NORMAL

STRENGTHENING & CONDITIONING

QUAD SETS, STRAIGHT LEG RAISES, & SINGLE-LEG BALANCE, UPPER BODY ERGOMETER, HIP ABDUCTION STRENGTHENING

CRITERIA FOR AMBULATION WITHOUT ASSISTIVE DEVICE

- **PAIN LESS THAN 3/10 (WORST)**
- **WITHIN 2 DEG NORMAL KNEE EXTENSION & 90 DEG KNEE FLEXION**
- **SINGLE LEG BALANCE > 20 SEC (BESS)**
- **MD OR PT APPROVAL**

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PHASE 2 - STRENGTH (7-12 Weeks)

PHASE GOALS: IMPROVE STRENGTH & INITIATE JOGGING PROGRAM

RANGE OF MOTION

6+ WEEKS - GRADUALLY PROGRESS FLEXION TO FULL OVER NEXT 4 WEEKS

STRENGTHENING

SHORT-ARC LEG PRESS, STEP-UPS, & ROMANIAN DEADLIFTS (RDLs)

SQUAT PROGRESSION (BODYWEIGHT SQUATS -> SINGLE LEG SQUATS)

RESISTED HIP ABDUCTION LATERAL BAND WALKS CORE EXERCISES (V-UPS, SINGLE-LEG BRIDGING)

CONDITIONING

STATIONARY BIKING - INITIATE AT 115 DEGREES OF FLEXION ROM

ELLIPTICAL & ROWING MACHINE AFTER 10 WEEKS

CRITERIA FOR JOGGING

- **AT LEAST 12 WEEKS POST-SURGERY**
- **PAIN LESS THAN 3/10 (WORST)**
- **WITHIN 2 DEG NORMAL KNEE EXTENSION & 120 DEG KNEE FLEXION**
- **AT LEAST 1 MINUTE OF SINGLE LEG SQUATS**
- **MD OR PT APPROVAL**

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PHASE 3 - AGILITY (12-16 Weeks)

PHASE GOALS: INTRODUCE DYNAMIC & POWER MOVEMENTS

STRENGTHENING

GYM SPECIFIC STRENGTHENING (BARBELL SQUATS & DEADLIFTS)

BIODEX QUAD & HAMSTRING FATIGUEING PROTCOLS

CORE EXERCISES (MOUNTAIN CLIMBERS, PLANKS, V-UPS)

CONDITIONING

ROAD OR STATIONARY BIKING

JOGGING PROGRAM

SWIMMING (PROGRESS KICKING GRADUALLY & PAIN-FREE)

PLYOMETRICS & LIGHT AGILITY

LADDER DRILLS, BOX JUMPS (UP TO 12”), SIDE SHUFFLE

CRITERIA FOR HEAVY AGILITY & SPORT SPECIFIC MOVEMENTS

- **16 WEEKS POST-SURGERY**
- **PAIN LESS THAN 2/10 (WORST)**
- **QUAD & HAM STRENGTH \geq 80% NORMAL; \geq 50% H/Q RATIO FOR FEMALES**
- **AT LEAST MINUTES OF SINGLE LEG SQUATS (RESISTED)**
- **\leq 5 ON LANDING ERROR SCORING SYSTEM (LESS)**
- **MD OR PT APPROVAL**

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PHASE 4 - RETURN TO PLAY (16-20+ Weeks)

PHASE GOALS: INITIATE SPORTS SPECIFIC MOVEMENTS & RETURN TO PLAY

STRENGTHENING

PROGRESS GYM ROUTINE (SQUATS, DEADLIFTS, OLYMPIC LIFTING)

BIODEX QUAD & HAMSTRING FATIGUE PROTOCOLS & CORE EXERCISES

CONDITIONING

JOGGING, BIKING, & SWIMMING

INTERVAL SPRINT WORKOUTS

PLYMETRICS & AGILITY (2-3 DAYS/WEEK)

MAX EFFORT BOX JUMPS (PROGRESS WITH ROTATION)

LATERAL & ROTATIONAL AGILITY

SINGLE-LEG HOPS

UNPREDICTABLE CUTTING & CONTACT DRILLS

RECOMMENDED CRITERIA FOR RETURN TO PLAY

- **PAIN LESS THAN 2/10 (WORST)**
- **QUAD & HAM STRENGTH \geq 90% NORMAL; \geq 60% H/Q RATIO FOR FEMALES**
- **AT LEAST 3 MINUTES OF SINGLE LEG SQUATS (RESISTED)**
- **90% NORMAL ON ALL SINGLE-LEG HOP TESTS**
- **95% NORMAL - FIGURE OF 8, 5-10-5 PRO-AGILITY, & S-L VERTICAL JUMP**
- **MD OR PT APPROVAL**