TWIN CITIES ORTHOPEDICS

Lateral Meniscus Root Repair

Name: _____

Dr: Dr. Matthew Rasmussen Date: _____

ROM RESTICTIONS

0-90° x 2 weeks Then progress as tol (*AAROM "hamstring light" knee flexion x 6 weeks)

BRACE SETTINGS

Immobilizer x 6 weeks

Weight Bearing status

NWB x 6 weeks

TIME LINES

Week 1(1-7POD)
Week 2(8-14POD)
Week 3(15-21POD)
Week 4(22-28POD)

●= Do exercise for that week **Week**

Initial Exercises	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**12**	**16**	**20**	**24**
Flexion/Extension – seated foot slides - "Hamstring Light" x 6 weeks	0-90°		>90° AAROM KF			AROM - progress to full gradually								
Ankle pumps + nerve glides	●	●	●	●	●	●								
Patella/Tendon mobilization	●	●	●	●	●	●	●	●						
Heel prop knee extension stretch	●	●	●	●	●	●	●	●						
Quad isometric in extension	●	●	●	●	●	●	●	●						
Calf stretch with belt/strap	●	●	●	●	●	●	●	●						
Seated hamstring stretch	●	●	●	●	●	●	●	●						
Band-resisted ankle plantarflexion			●	●	●	●	●	●	●	●				
Bridge in knee ext - calves over ball				●	●	●	●	●	●	●	●	●	●	
Quad strength progressions	0° ISOs, SLR			60°ISO		70-30° arc - resisted					Full arc - resisted			
SLR hip ABD, Ext (brace on)			●	●	●	●	●	●	●	●				
Hamstring strength progressions	No isolated, resisted HS (root)							ISOs, hip-based				Knee-based Resisted arc		
Cardiovascular Exercises	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**12**	**16**	**20**	**24**
Stationary Bike	NWB					Light			Progress gradually					
Treadmill walking (no limp)										●	●	●	●	●
Swimming – light flutter kick										●	●	●	●	●
Elliptical trainer											●	●	●	●
Stair stepper											●	●	●	●
***NOTE FOR CARDIO**	**Must tolerate daily walking with no limp & no significant increase in pain/swelling prior to initiating WB cardio (walk, elliptical, stepper)**													
Weight Bearing Strength	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**12**	**16**	**20**	**24**
Crutch weaning – return to FWB	NWB					●	●	●						
Marching into brief SLS							●	●	●	●	●	●	●	
SLS balance progressions								●	●	●	●	●	●	●
Squat/Leg Press (ISO→reps, 2→1 leg)								0-45°		0-70°		>70°gradual		
Step-up/Lunge Progressions									ISOs		0-70°		>70°	
Dead lift (2→1 leg)									●	●	●	●	●	●
Band resisted directional stepping											●	●	●	●
Agility Exercises	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**12**	**16**	**20**	**24**
Agility: single→multi-plane	NWB												●	●
Return to run criteria	≥16 weeks post-op, YBT-Anterior ≤8 cm SSD, walk ≥1 mile no limp/no pain, Quad strength ≥70% LSI, ≥60% peak torque/BW													
Sport Performance (TRAC) Test	Baseline test: 6 months, F/u test: 12 months													
High Level Activities	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**12**	**16**	**20**	**24**
Golf progression	NWB													●
Outdoor biking, hiking, snowshoeing														●
Return to sport progressions														●

****NMES & BFR encouraged (per any contraindications)****

PRECAUTIONS	NO resisted hamstring curling, tibial ER, cross-legged sitting, squat >70° x 4 months, NO aggressive cutting/pivoting x 6 months
ABBREVIATIONS	(HE) Hyperextension, (ISO) Isometric, (KF) knee flexion, (LAQ) Long arc quad, (NWB) Non-weight bearing, (PRE) progressive resistance exercise, (SAQ) short arc quad, (SLR) straight leg raise, (SLS) single leg stance, (TKE) terminal knee extension

POST-KNEE SURGERY RETURN TO ACTIVITY GUIDELINES/CRITERIA	
Return to run guidelines	≥16 weeks post-op, YBT-Anterior ≤8 cm SSD, walk ≥1 mile no limp/no pain, Quad strength ≥70% LSI, ≥60% peak torque/BW
Return to jump guidelines	≥20 weeks post-op, YBT(A) ≤4 cm SSD, Quad strength ≥80% LSI, ≥80% peak torque/BW, tolerate hopping/skipping drills with no increased soreness/swelling, tolerate lunge/squat/step single leg training progressions
Return to sport guidelines	In addition to TRAC testing goals (listed below), patient must achieve the following: 8+ weeks progressive strength training 4+ weeks neuromotor training program 4+ weeks within-sport practice progression (per MD/PT team clearance) 2-3+ weeks graduated return to competition (per MD/PT team clearance)

POST-KNEE SURGERY "TRAC" PHYSICAL PERFORMANCE TESTING - TIMELINES & GOALS			
TRAC Test Activity	**4 Month Goals**	**6-7 Month Goals**	**9-10 Month Goals**
Knee Extension ROM	≤5° SSD	≤0° SSD	≤0° SSD
Knee Flexion ROM	≤10° SSD	≤5° SSD	≤0° SSD
YBT(A) Squat SSD	≤8 cm SSD	≤4 cm SSD	≤4 cm SSD
Max YBT(A) squat depth relative to LL	*≥55% of LL*	*≥70% of LL*	*≥70% of LL*
Repeated single leg squat (one leg rise test)	25 reps to 60° KF	25 reps to 90° KF	25 reps to 90° KF
2 leg squat symmetry (over force plates)	≤10% off-shift	≤5% off-shift	≤5% off-shift
Hip ABD strength LSI	≥80% LSI	≥90% LSI	≥90% LSI
Hip ABD strength relative to BW	*≥20% of BW*	*≥25% of BW*	*≥30% of BW*
Quad strength LSI	≥70% LSI	≥80% LSI	≥90% LSI
Quad strength relative to BW	*≥70% of BW*	*≥80% of BW*	*≥90% of BW*
Hamstring strength LSI		≥75% LSI	≥90% LSI
Single leg hop (SLH) test LSI		≥80% LSI	≥90% LSI
SLH distance relative to LL (norm comparison)		*≥80% of norms*	*≥90% of norms*
Triple hop test LSI		≥80% LSI	≥90% LSI
Triple hop distance (norm comparison)		*≥80% of norms*	*≥90% of norms*
2 leg jump (off shift at take-off/landing)		≤20% off shift	≤10% off shift
Peak knee flexion angle SSD with hop landing		≤20° SSD	≤10° SSD

Abbreviations for both tables above: (ABD) abduction, (BW) body weight, (ISO) isometric, (LL) leg length, (LSI) limb symmetry index, (norm) age & sex-matched normative data, (PRE) progressive resistance exercise, (ROM) range of motion, (SLR) straight leg raise, (SSD) side to side difference, (TRAC) testing to return to athletic competition, (UE) upper extremity, (YBT(A)) Y-balance test anterior reach