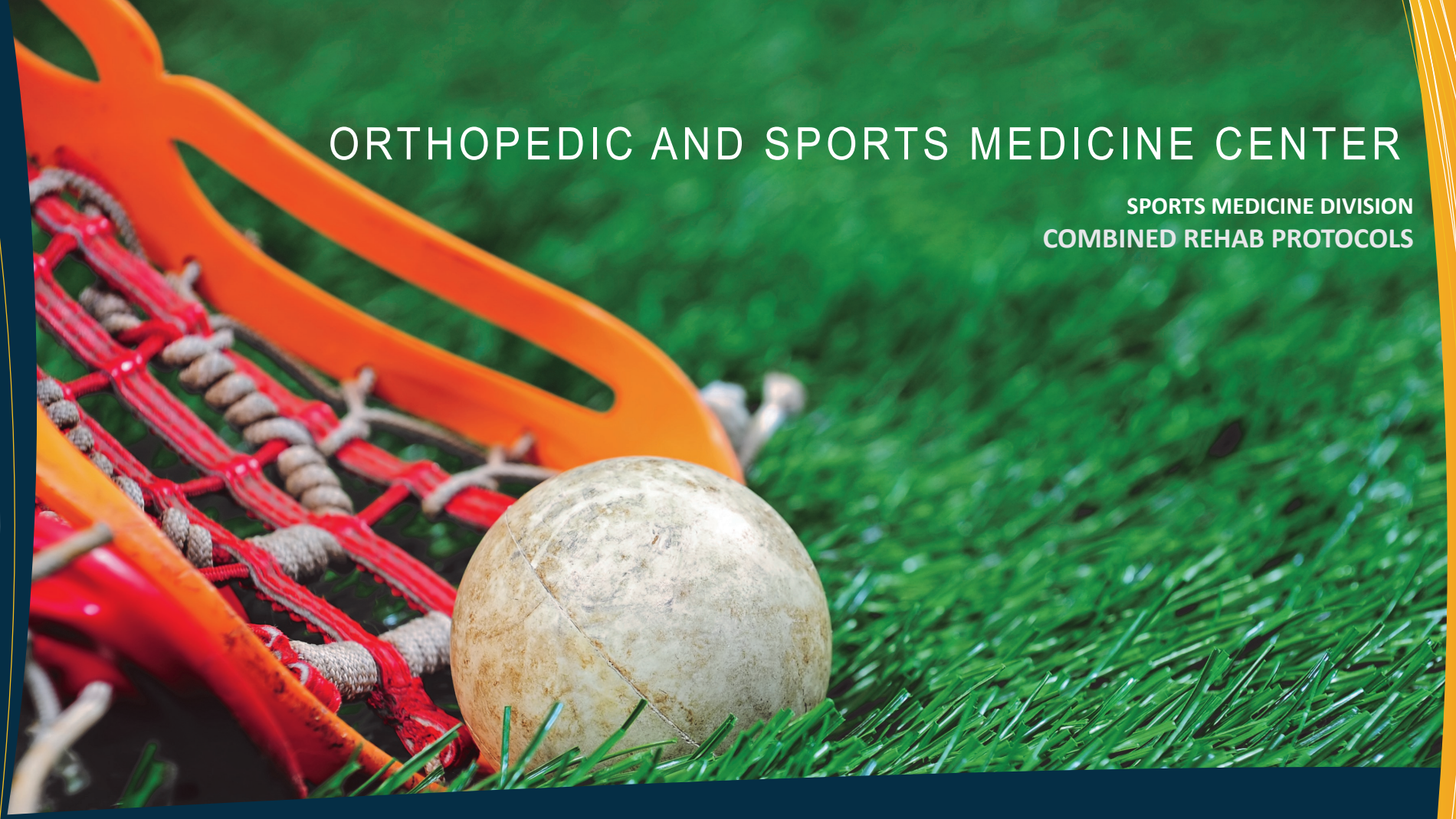

ORTHOPEDIC AND SPORTS MEDICINE CENTER

SPORTS MEDICINE DIVISION
COMBINED REHAB PROTOCOLS

MPFL or Extensor Mechanism Or Patella Procedures Rehab Protocol

Edited: May, 2015

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TIMELINE	GOALS	EXERCISES/METHODS
Early Post-operative Day 1- week 6	Limit knee ROM as described right Protection of post-surgical knee Single leg stand control Good quad control without pain Single leg balance greater than 15 seconds	Quad sets 4 way leg lifts with brace Ankle pumps Gait drills Balance and proprioception Functional single plan closed chain movements Avoid medial and lateral patellar mobilzations in first 2 weeks MPFL Only: • Heel and toe raises after 2 weeks • TKE's • Step ups
Milestones to reach by end of week 6: • **Full knee extension** • **Knee flexion > or = 90 degrees** • **SLR without quad lag**		
Phase II Week 6- Week 12	Normal gait without crutches No joint effusion Improvement of quad, hip, balance, and proprio-ception Single leg balance with 30 degree knee flexion greater than 15 seconds Pain free squats and lunge	Avoid closed chain exercises on ladning past 90 degrees knee flexion Squats Leg press Closed chain strengthening in multiple planes Staionary bicycle Lunges Proprioception exercises Alter G/ treadmill running progession (No sooner than 8 weeks) Hip and core strengthening

BRACING

- Immobilizer 2 weeks

After 2 weeks– Then:

Fracture/Quad Tendon/Patella Tendon/Tubercle Transfer—IROM Brace

- Week 3: 0-30
- Week 4: 0-50
- Week 5: 0-70
- Week 6: 0-90
- Week 7+ : Full

MPFL/Lateral Release/Reefing

- IROM 0-90 until week 6

ROM RESTRICTIONS

- Follows Brace Restrictions

WEIGHT BEARING

- NWB for 4 weeks
- 25-50% Week 5
- 50-75% week 6
- 100% after 6 weeks
- MPFL can WBAT at 2 wks

OTHER RESTRICTIONS AND KEY CONSIDERATIONS

Quad Tendon/Patella Tendon/Tubercle transfer/patella fracture:

- No Active extension for 6 weeks

MPFL/Reefing/Lateral Release

- No lateral mobs for 4 weeks

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TIMELINE	GOALS	EXERCISES/METHODS
Milestones to reach by end of week 12: • **Normalized gait without assistive device** • **Full pain free ROM** • **Min to no swelling**		
Phase III Week 12-Week 18	Success with sport specific training Successful completion of return to sport testing criteria Multiplane dynamic neuromuscular control without pain, instability, or swelling	Plyometrics with progression from 2 feet to one foot (16 weeks) Sports specific training Progression of previous exercises
Week 18+	Return to sport pending MD approval	Return to sport

SHOWERING

1. May Shower day 1 after surgery
2. Must "waterproof" surgical site for 5 days after surgery
3. No submerging wounds for 4 weeks

WOUND CARE

1. Remove everything except steri strips the day after surgery
2. Place clean gauze or op-site on wounds daily for 5 days

MEDICATIONS

1. Pain medicine only as needed. Wean off as soon as possible
2. Don't over-use NSAIDS
3. Aspirin 325mg daily for 1 month for DVT prophylaxis

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RETURN TO PLAY CRITERIA

Pre-RTP Criteria before testing can commence	Full AROM Resolution of pain No/Trace joint effusion present MMT grossly 5/5 strength in LE LEFS: ≥ 75/80 (95%) Lysholm Knee Rating: ≥ 95% 1RM SL Leg Press ≥ 90% contralateral side 1RM SL Hamstring Curl ≥ 90% contralateral side
Lower Limb Symmetry Index (LSI): LSI % (mean score of 3 trials on injured limb/ mean score of 3 trials on uninjured limb) x 100	SL Hop: ≥ 90% SL Triple Hop: ≥ 90% SL 6 meter Timed Hop: ≥ 90% SL Cross-over Hop: ≥ 90% Overall Score: ≥ 90%
Vail Sports Tests:	Passing Score ≥ 46/54 (85%)
Tuck Jump Assessment (TJA):	perfect score on the TJA or improvement of 20 percentage points from the initial score
Single Leg Squat: No Errors in Form (Errors listed right)	Arm strategy: removal of hand off the waist Trunk alignment: leaning in any direction Pelvis plane: loss of horizontal plane Knee position: tibial tuberosity medial to second toe or tibial tuberosity medial to medial border of foot Steady stance: subject stepped down on non-tested limb, or foot wavered from side-to-side
Modified Star Balance Excursion Test (Y Balance Test):	SEBT % = ((mean score of 3 trials in anterior distance + mean score of 3 trials in posterior lateral distance + mean score of 3 trials in posterior medial distance)/ leg length of stance limb) x 100. Passing Score ≥ 94%
Core Testing: (ongoing research): ≥ 90% of all standard timed tests:	Right Single Leg Bridge: Men 95 seconds; Females 75 seconds Left Single Leg Bridge: Men 99 seconds; Females 78 seconds Flexor Endurance Test: Men 136 seconds; Females 134 seconds Extensor Endurance Test: Males 160 seconds; Females 185 seconds Lower Abdominal Muscle Testing: Males 5/5; Females ≥ 4/5 (75□=3/5, 60□=3+/5, 45□=4-/5, 30□=4/5, 15□=4+/5, 0□=5/5)

RTP INSTRUCTIONS

RTP evaluation can progress throughout treatment as appropriate

PRE-RTP

Complete all testing in Pre-RTP section. Only Continue on when able to pass

SESSION 1

LSI, Vail Sports, TJA

SESSION 2

Single leg squat, Y Balance, Core Testing

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