<table>
<thead>
<tr>
<th>TIMELINE</th>
<th>GOALS</th>
<th>EXERCISES/METHODS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Post-operative Day 1-Week 6</td>
<td>+Control swelling, inflammation -(RICE)</td>
<td>Extension: • Heel prop</td>
</tr>
<tr>
<td>NWB x6 weeks</td>
<td>+Obtain terminal knee extension/hyperextension</td>
<td>• Calf stretches (with ext)</td>
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<tr>
<td>PROM/AROM 0-90 x6 weeks</td>
<td>+Obtain SLR without lag</td>
<td>• Hamstring stretches</td>
</tr>
<tr>
<td></td>
<td>+Normalize ambulation</td>
<td>• Quad sets (E-STIM prn)</td>
</tr>
</tbody>
</table>

Milestones to reach by end of week 6:
- Full knee extension
- Knee flexion 90 degrees
- SLR without quad lag

Week 6-10
- Progress to full knee flexion
- Continue to progress:
  - Functional strength
  - Proprioception
  - Neuromuscular control
- Bike full revolutions
- Heel slides (to full ROM)
- Weight shifts
- Leg press- Bipedal
- Step ups
- Mini squats (0-20)
- SLS Activities
- Calf strengthening
- Hamstring curls**
- TKEs
- Half squats with RNT (0-40)
- Cone step overs
- Clamp progression
- Plank progression
- Wall slide progression with RNT
- 4 way contralaterals
- Bosu kneeling/balance training,
  - Titilboard progression
- Lunges (multiplanar, rotational)
- Single leg deadlifts progression

BRACING
- Immobilizer until SLR without sag 10x10
- Then IROM 0-90 for 6 weeks
- Functional Brace for high level activities for 18 months post op

ROM RESTRICTIONS
- 0-90 for 6 weeks

WEIGHT BEARING
- PWB for 4 weeks
- 25-50% Week 4
- 50-75% week 5
- 100% after 6 weeks

OTHER RESTRICTIONS AND KEY CONSIDERATIONS
Hamstring Grafts: no hamstring sets until week 5
BTB Auto: no kneeling on anterior knee pressure for 6 weeks. Focus on early and full patella mobs
No kneeling or WB flexion >90 for 3 months
### Milestones to reach by end of week 10:
- Normalized gait without assistive device
- Full pain free ROM
- Min to no swelling

### Week 10-12
**+Maximal Strengthening**
- Single leg mini squat (0-45),
- Static squat holds with RNT/dynamic core training,
- Triple flexion/extension (running prep)
- Light plyometric progression
  - Ankle jumps, jumping in place DBL-SL
- Trampoline bounding
- High volume low stress shuttle training
- Anti-gravity treadmill running at 55-65% WB (at 5-10 minutes)
- Slideboard/fitter
- Advanced core stabilization

### Week 12-14
**+Return to running**
- FWB Running Progression
  - Level 1 – .1 mi walk/ .1 mi jog repeat 10 times
  - Level 2 – .1 mi walk/.2 mi jog (2 miles)
  - Level 3 – .1 mi walk/.3 mi jog (2 miles)
  - Level 4 – .1 mi walk/.4 mi jog (2 miles)
  - Level 5 – Jog 2 miles

### Week 14-16
**+ Execute running patterns at 50-75% speed without difficulty**
- Running pattern training (figure 8, pivot drills)
- Advanced plyometrics
  - Box jumps, power skipping, zigzag bounding
  - Multi-directional plyometrics
- Agility drills

### Weeks 16+
**+Return to athletic participation**
- Sport specific training drills (cutting, pivoting, sprinting, plyometrics)
  - Gradual 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
## 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):**

\[
\text{LSI} = \frac{\text{mean score of 3 trials on injured limb}}{\text{mean score of 3 trials on uninjured limb}} \times 100
\]

- 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):**

\[
\text{SEBT} = \left( \frac{\text{mean score of 3 trials in anterior distance} + \text{mean score of 3 trials in posterior lateral distance} + \text{mean score of 3 trials in posterior medial distance}}{\text{leg length of stance limb}} \right) \times 100
\]

- 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