

Patient: \_\_\_\_\_ Date of Surgery: \_\_\_\_\_

**Procedure: Right/Left Patellar (BTB) / Quad Autograft ACL reconstruction**

**Associated Procedure** (circled if applicable): Meniscectomy/Meniscal Repair

**Phase I (0-6 wks): *Period of protection***

**Weight bearing:** WBAT, should be without assist by POD10

**Brace:** Hinged knee brace locked in extension at all times for 1 week including sleep. Ok to unlock for ambulation progressively to level of flexion with therapy after 1 week. D/c brace by 4 weeks if quad control appropriate unless meniscus repair performed.

**ROM:** Progress through PROM, AAROM and AROM as tolerated. Goals of full extension by week 2, 120 flexion by week 6.

**Ice:** Not directly on skin. Recommend as much as possible. 5x/day, 20 min/session for first 2 weeks. Then after activity at minimum.

**Exercises:** Extension board and prone hang with ankle weights up to 10lbs. Stationary bike with no resistance for knee flexion (alter set height as ROM increases). Patellar mobilization 5-10 min daily. Quad sets, SLR with knee locked in extension. Begin closed chain work (0-45°) when full weight bearing. No restrictions on ankle and hip strengthening.

**Note: if a meniscal repair was done simultaneously, please amend the above with the following restrictions:**

- Limit ROM 0-90° x 4 weeks, can follow above unlocking parameters
- Brace used at night x4 weeks 0-90°
- No tibial rotation x 4 weeks

**Phase II (6-12 wks): *Advance strengthening***

**Weight bearing:** Full

**Brace:** None

**ROM:** No limitation, increase as tolerated.

**Ice:** Not directly on skin. Recommend as much as possible, at minimum after therapy.

**Exercises:** Increase closed chain activities 0-90°. Add pulley weights, therabands, etc. Monitor for anterior knee pain symptoms. Add core strengthening exercises. Add side lunges and/or slideboard. Continue stationary bike and outdoor biking for ROM, strengthening and cardio. Swimming and water based controlled activities can begin. D/C to HEP if independent.

**FOLLOW ATTACHED PROTOCOL ON PAGE 3**

**Phase III (12 wks-6 mo): *Independent strengthening and progression to jogging***

**Weight bearing:** Full

**Brace:** None

**ROM:** No limitation

**Exercises:** Advanced strengthening (may use personal trainer), follow suggested exercises, increase resistance on equipment. May begin elliptical. Strict avoidance of open chain exercises.

**Running:** Return to PT for walk/jog program and return to sprint training programs at 4 mo and 5 mo respectively. Perform activities independently afterwards.

**Phase IV (6 mo-8 mo): *Advanced activities***

**Weight bearing:** Full

**Brace:** None

**ROM:** No limitation

**Exercises:** **AVOID HIGH RISK ACTIVITIES UNTIL MD CLEARANCE.** Y balance test and if appropriate return to jumping training.

**Phase V (9 mo-12 mo): *Strengthening and release to sports***

**Brace:** Can consider custom ACL functional brace only if desired for return to sport

**Exercises:** **AVOID HIGH RISK ACTIVITIES UNTIL MD CLEARANCE.** Vail sports testing at 9 mo if cleared by MD.

**Release to sports:** Release is individualized, no sooner than 9 months due to elevated re-tear risk. Will be appropriately released by PT and testing metrics rather than time alone.

**Frequency:** \_\_\_\_\_x/week x \_\_\_\_\_weeks

**By signing this referral, I certify that I have examined this patient and physical therapy is medically necessary.**

\_\_\_\_\_

**Date:** \_\_\_\_\_

**Dax Varkey MD, MPH**

**Independent Gym Program following ACL Reconstruction**

This program is intended to help guide your strengthening during the recovery from an anterior cruciate ligament reconstruction. While many of the exercises can be done independently, it takes regular commitment to strengthening and access to fitness equipment to be successful.

- Perform gym program 2-3 days/week with at least 48 hours between sessions  
 The frequency of exercises determined by soreness, fatigue, exercise technique, and stability throughout involved knee.
- Perform bodyweight stability and balance exercises as given in physical therapy 5-7 days/week. These may be performed before or after your gym work.
- Perform any running, agility, jumping/plyometrics, or sport-specific work prior to your gym workout.
- If you experience pain > 3/10 or more than minimal swelling during your workout, discontinue that workout, ice, elevate your leg and wait 48 hours before resuming workout program.
- If pain > 3/10 and/or swelling remain, contact your physical therapist.

**1. Choose 1 primary exercise**

- 4 working sets of 8-12 reps/set
  - *Perform as many warm-up sets as needed prior to working sets*
- May increase weight and decrease reps to 6-8 over time but only as knee stability and exercise technique allow

**2. Choose 1-2 single-leg auxiliary exercises**

- Perform 3-4 sets x 8-12 reps

**3. Choose 1-2 double-leg auxiliary exercises**

- Perform 3-4 sets x 6-10 reps

Primary Exercise Choose 1	Single-leg auxiliary exercises Choose 1-2	Double-Leg auxiliary exercises Choose 1-2
<ul style="list-style-type: none"> <li>• Squats               <ul style="list-style-type: none"> <li>○ Dumbbell</li> <li>○ Barbell (<i>with spotter</i>)</li> <li>○ Hex Bar</li> </ul> </li> <li>• Deadlifts</li> </ul>	<ul style="list-style-type: none"> <li>• Bulgarian split squat</li> <li>• Bulgarian deadlift</li> <li>• Single-leg RDL</li> <li>• Lunge (<i>stationary, walking, reverse. NO FORWARD TO BACK LUNGE</i>)</li> <li>• Step-ups</li> <li>• Sled Pull variations</li> <li>• Bench Bridge</li> <li>• Single-leg leg press</li> <li>• Single-leg leg extension (<i>only with MD clearance</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• RDL</li> <li>• Glute-Ham raise</li> <li>• Reverse Hyperextension</li> <li>• Hyperextension</li> <li>• Thruster</li> <li>• Low Cable Pull Through</li> <li>• Leg press</li> <li>• Leg extension</li> <li>• Hamstring curl</li> </ul>