

Sheena Black, MD
Orthopedic Surgeon
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PHYSICAL THERAPY PRESCRIPTION
ACL RECONSTRUCTION– QUADRICEPS TENDON TECHNIQUE

Name: _____ Date: _____

Post-Operative Diagnosis: Right Left ACL Reconstruction

Graft: Quad BTB Hamstring Allograft _____

Additional Procedures: Lateral Meniscectomy Medial Meniscectomy
 Lateral Meniscal Repair Medial Meniscal Repair
 Other: _____

Surgical Date: _____

Weight Bearing: Progressive WBAT

Weight bearing modifications: NWB TTWB PWB

ROM: Full passive knee extension, progress knee flexion as tolerated

ROM Modifications: _____

Brace Instructions: _____

Additional Instructions: _____

Frequency & Duration: 2-3 times per week for 6 – 8 weeks

Rx: ACL Post-Op Rehab – Phase 1 (follow my protocol strictly)
Dressing change / wound check 2-3 days post-op
Call my office if patient unable to get 0 – 90° ROM by 2 weeks post-op
Emphasize early full passive extension to 0°

Precautions:

Per my PT protocol
 Other: _____

Physician's Signature: , MD

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PHYSICAL THERAPY PROTOCOL ARTHROSCOPIC ACL RECONSTRUCTION – QUADRICEPS TENDON

PHASE I:

TIME FRAME: Immediately post-op through 4 weeks.
PT visits 1-2x/ week
Patient to do H.E.P. daily

GOALS: Passive extension to 0°, but not recurvatum
Full ROM
Reduce swelling
90° flexion by 5d post-op
Maintain patella glide
Achieve good quad set at 0° and 90°
Protect graft fixation from early cyclic loading.

PRECAUTIONS: Brace removal prn by therapist for exercises
Brace locked at 0° for sleeping until 0° extension maintained
Brace locked at 0° for ambulation
Weight-bearing – WBAT w/ crutches

EXERCISES:

1. 0° quad sets (consider NMES or biofeedback for protocol control).
2. Assisted flexion (dangle) with uninvolved leg crossed under ankle.
3. 90° quadriceps isometrics once 90° flexion achieved.
4. Theraband™ leg press 100° to 30° as tolerated
5. Calf, hamstring stretching, calf pumps.
6. Heel slides.
7. Stationary bike for promotion of range of motion.

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PHASE II:

TIME FRAME: 4 to 6 weeks post-op.
PT visits - TIW
Patient to do H.E.P. daily

GOALS: **D/C brace/ crutches when adequate quad and non-antalgic gait**
Full ROM
Restore full passive hyperextension
Restore patella mobility to normal
Achieve good quad set at 0° and 90°
Increase quad and HS strength.

PRECAUTIONS: Avoid terminal open chain quad PRE

EXERCISES:

1. Patella and scar tissue mobilization by therapist and patient.
2. Straight leg raises continue in brace until strength is sufficient to prevent extension lag.
Add weight as tolerated *only* if full extension maintained.
3. Isometric quad sets at 90° knee flexion (use a belt looped around leg of chair).
4. Theraband™ leg press from 100° to 0°.
5. Prone hangs to full extension.
6. Calf strengthening (Heel raises standing, sitting, and Theraband™).
7. Closed kinetic chain quadriceps strengthening (mini squats, weight shifting, leg press).
8. Single leg balance, proprioception work.
9. Stationary bike – progress light resistance as tolerated.

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PHASE III:

TIME FRAME:

6 weeks to 12 weeks post-op.
PT visits - BIW
Patient should do workout in health club or home gym TIW

GOALS:

Regain full motion to flexion.
Restore patella mobility to normal.
Begin improving proprioception.
Normal community ambulation.
Increasing strength with program in therapy and / or club.

PRECAUTIONS:

Avoid terminal open chain quad PRE.
No jumping or cutting activities.

EXERCISES:

1. Continue Range of motion / flexibility to equal opposite side.
2. Prone hangs or other passive extension exercise until full extension achieved.
3. Continue closed kinetic chain quad strengthening and progress to single leg mini squats (pt may use weighted back pack), single/ double leg press, wall sits to 90°, step-ups, lateral step-up, and weighted terminal knee extension.
4. Continue to progress hamstring, calf, and hip strengthening (side steps, resisted walking, raises, curls).
5. Stationary bike – increase time and resistance levels. Progress to interval program.
6. Elliptical, NordicTrack, Stairmaster, treadmill machines and walking for conditioning with attention paid to patella symptoms.
7. Pool programs – walking initially with progression to deep-water aqua jogging.
8. Continue to progress proprioception and balance activities (ball toss, balance boards, foam, and mini trampoline).
9. Open chain knee extension from 100° to 45°
10. Isometric quad sets at 90° knee flexion – sitting and supine (ie. Hip flexed and neutral).

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PHYSICAL THERAPY PROTOCOL ARTHROSCOPIC ACL RECONSTRUCTION – QUADRICEPS TENDON

PHASE IV:

- TIME FRAME:** 12 weeks to 20 weeks post-op.
PT visits – every other week
Patient should do workout in health club or home gym 5x/week
- GOALS:** Full ROM
Normal patella mobility.
Gain sufficient strength, proprioception to initiate straight jogging.
If swelling limits flexion – pt to take 2 Aleve PO BID.
- PRECAUTIONS:** No sudden starts/stops or quick change in direction.
No jumping or cutting activities
- EXERCISES:**
1. Continue strength building program by increasing weights and decreasing repetitions per set, 3-4 times per week.
 2. Progress toward full weight-bearing jog at 12 weeks. Begin on treadmill and advance to track (initially walking curves). Slowly increase the pace and distance.
 3. Advanced proprioception activities.
 4. Isokinetic strengthening full range of motion if available.
 5. Open chain knee extension 30° to 0°.

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PHYSICAL THERAPY PROTOCOL ARTHROSCOPIC ACL RECONSTRUCTION – QUADRICEPS TENDON

PHASE V:

TIME FRAME: Quadriceps/hamstring strength 80% of uninvolved thigh required for phase V.
20 weeks to 24 weeks post-op.
PT visits – every other week
Patient should do workout in health club or home gym 5x/week.

GOALS: Restore advanced proprioception
Restore normal muscle strength and endurance
Safely restore functional sports performance in controlled setting.
Slow and controlled cutting activities under light load.

PRECAUTIONS: Quadriceps/hamstring strength 80% of uninvolved thigh required for phase V.
No fast or aggressive cutting
No hopping down from > 12” height

EXERCISES:

1. 4 week return to sports program/ agility program issued by therapist / physician.
2. Slow progression into plyometric training.
3. Cross overs
4. Figure 8 running.
5. Box / shuttle running
6. Accelerating / decelerating sprints
7. Progression into sport specific drills.

PHASE VI:

TIME FRAME: Quadriceps/hamstring strength 85% of uninvolved thigh required for phase VI.
Begin 6 months post-op.
Supervised but independent program

GOALS: Equal performance lower extremities on single and 3 hop test
Symmetric performance of basic and sport specific agility drills.
Return to sports.

IF QUESTIONS: PLEASE CALL 469-800-7200