ORTHOPAEDIC MEDICAL GROUP OF TAMPA BAY

Christopher T. Donaldson, MD
813.684.BONE (2663)
www.omgtb.com

Post-op PATIENT Instructions: PCL/PLC RECONSTRUCTION

Dressing: A dressing has been applied to your knee to absorb any fluid/blood. A small amount of blood on the dressing is expected. Leaving the steri-strips on the skin, replace the covering gauze dressing daily with new dry, sterile gauze (obtained from your pharmacy). Unless directed by your surgeon, **no salves, balms, or ointments (even antibiotic ointments) to the incisions.** Soreness and bruising is expected for several days afterward.

Showering (No bathtub): is permitted 72 hours after surgery with the incisions covered. After showering, gently dry the incision and apply a new dry dressing. ***Do NOT soak/submerge the incisions. No swimming/hot-tubs until cleared by your surgeon.***

Ice: Ice is a powerful anti-inflammatory. Icepacks/wraps will help to reduce swelling and pain. Use liberally (20-30 min./session), but remember to protect the skin from direct contact (and frostbite).

Activity: Crutches may be needed for the first several days after surgery. Foot and ankle motion (foot pumps) are encouraged and will help to reduce your chance of a blood clot. Additionally, tightening the thigh muscle will assist your thigh muscle in returning its function faster. However, **no driving until permission is given by your surgeon.**

Pain: A nerve block may have been performed for immediate post-op pain control by the anesthesiologist. It typically "wears off" at about 8-12 hrs. following surgery. A long-acting narcotic (every 12 hrs) used in combination with a shorter-acting narcotic (taken every 3-4hrs as needed for breakthrough pain) is given for your pain control. **Begin taking these pain medications when you BEGIN experiencing pain!** These meds can take 30-45 minutes to start "working". You do not want to play "catch-up" by letting your pain get out of control. Nausea, drowsiness, and constipation are common side effects of narcotics. Adequate fluid intake and a stool softener obtained over the counter from your local pharmacy is recommended to minimize constipation. Call the office if you are unable to tolerate your medication.

Precautions: If you develop temperatures above 101.5°F (38.5°C), uncontrolled pain, marked redness, persistent/discolored drainage, or significant swelling. Call the office **(813)-684-2663**

Follow-up: If you do not already have an appointment scheduled, call the office as soon as possible to schedule your first post-op visit.

Special Instructions: _____ (Additionally, follow any indicated instructions below.)

☒ **Physical therapy:** ☒per attached prescription; to be scheduled as soon as able

☒ **Weightbearing (operative leg):** ☒ non-weightbearing; advance as PT protocol directs

☒ **Brace:** full time wear; advance as PT protocol directs

Additional Instructions:

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PCL & POSTEROLATERAL CORNER RECONSTRUCTION: *PT/OT PRESCRIPTION*

(Revised 12.13.14)

***MD Orders for the Therapist*:**

- Physical Therapy Prescription: 2-3 times per week x 6 weeks
- Follow this protocol *without substitution*. Contact my office with any questions.

_____
Christopher T. Donaldson, MD

REHAB PRECAUTIONS:

- ***Progression is time and criterion-based, dependent on soft tissue healing, patient demographics, and clinician evaluation***
- Isotonic Strenthening
  - Avoid isolated active/resistive hamstring stretching for **5 months**
  - Closed chain co-contraction activities may begin at 6 weeks

WEEKS: 0-2 POST-OP

- **WEIGHTBEARING:** Non weightbearing
- **BRACE:** Locked in full extension except for ROM activities
- **ROM**
  - Maintain/obtain full knee extension
  - Supine/long sitting passive heel slide w/ post. Tibial support to avoid sag (0-90◦)
  - Patellar mobilization
  - Maintain calf/hamstring flexibility, via posterior supported positions
    - (no 90/90 or supine straight leg stretching of HS)
  - Edema control
  - **NO VARUS OR ROTATIONAL LOADING OF KNEE!**
- **Strengthening**
  - No resistive/active HS activities
  - Neuromuscular re-ed with stim and/or biofeedback if less then good quad set
  - Quad Sets; supine or prone
  - Flexion and abduction SLR, emphasis on reducing extensor lag
    - Relax quad between reps to improve quality of quad contraction
  - Partial weight bearing LE shifts with crutches per tolerance
- **Goals to Progress to Next Phase**
  1. Good quad set
  2. ROM 0-90 degrees
  3. SLR without extensor lag
  4. Minimal to no edema

WEEKS: 2-4

- **WEIGHTBEARING:** Begin partial weightbearing with goal: WBAT at post-op 3-4 week
- **ROM**
  - Continue as above
- **Goals to Progress to Next Phase**
  1. No exacerbation with PWB strengthening

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WEEK: 4-6

- **WEIGHTBEARING:** WBAT in brace.
- **ROM**
  - Brace may be unlocked for ROM
  - Supine/long sitting passive heel slide w/ post. Tibial support to avoid sag (0-100◦)
  - Cont. w/ HS and calf flexibility in available range (light towel stretch)
- **Strength**
  - Cont. closed chain activities in locked brace.
  - Straight leg raises w/ brace; flex., abd., add.
  - Steamboats (No Extension)
  - Cont. quad strength.
- **Goals to Progress to Next Phase**
  1. ROM: 0-100
  2. Painfree WBAT in brace locked at full extension
  3. Able to perform single leg stance w/ good balance.

WEEK: 6-8

- **BRACE:** Able to D/C brace after 6 weeks when normal pain-free gait pattern resumes
- **ROM**
  - Full seated and supine active ROM 0-130 degrees. No resistance.
  - Able to perform passive ROM beyond available active ROM (avoid direct anterior to posterior force on tibia)
  - Begin bike, no resistance
- **Strengthening**
  - Initiate multidirectional hip PRE's/steamboats all directions.
  - Progress partial weight bearing strengthening (Total Gym, Shuttle, Aquatics, etc.)
  - Mini Squats, wall slides, step ups
  - Gait training
  - Proprioceptive activities
  - Trunk and lumbosacral strengthening (No Bridging)
- **Goals to Progress to Next Phase**
  1. Ability to progress therapeutic exercise without pain or reactive swelling.
  2. Active ROM 0-130 degrees pain free
  3. Normal Gait pattern

(WEEK: 8-12)

- **ROM**
  - Full active and passive ROM
  - Initiate passive stretching of all major LE muscle groups.
  - Continue bike with low level resistance
- **Strengthening**
  - **No active open kinetic chain hamstring exercises (May begin closed chain)**
  - Initiate step down begin with 2 inch step and progress to 4 inch.
  - Retro treadmill ambulation
  - Mini lunges, squatting 0-90 degrees
  - Progress LE/trunk strength and stability exercises (May initiate bridging)

- Resisted lateral stepping
- Proprioceptive activities progressed from stable to unstable surfaces
- Begin bilateral total gym/shuttle plyometrics **(week 10)**

- **Goals**
  - Demonstrate ability to descend 6 inch step without reactive instability
  - ROM within normal limits
  - No dynamic valgus with squat to 90 degrees

WEEK: 12-16

ROM

- Continue per tolerance and use for pre-exercise warm up

Strengthening

- Shuttle/ Total Gym
  - Partial weight bearing jogging
  - Rotational and single leg hopping
  - Initiate walk-jog progression (14 weeks)
- Criteria to initiate jogging
  - ≥ 7 /10 on #10 IKDC Questionnaire (**Appendix A**)
  - 20 heel touches with good alignment
  - Appropriate landing mechanics
  - Normalized ROM
  - Audible rhythmic strike patterns and no gross visual antalgia
- Initiate agility exercises 50-75% speed (14-16 weeks) Side shuffle, carioca, figure eight, zig zags, resisted jogging with sports cord, back pedaling, etc.

Note: No acceleration/deceleration work due to delayed hamstring activation.

Goals

- Pain free jogging
- No Reactive effusion
- ROM equal to contralateral side.
- Pain free bilateral plyometrics without reactive instability.

4-6 Months

ROM

- Continue per patient ability. –Recumbant bike, upright bike, elliptical, treadmill, etc.

Strengthening

- Initiate active resistive hamstring dominant exercises (5-6 months)
- Continue jogging progression, increase speed and duration.
- May begin single leg full weight bearing plyometric training.
- Progress agility exercises 75-100% speed.
- May begun acceleration/deceleration and change of direction training.
- Continue emphasis on quad, hamstring, and core stability.
- Bilateral full weight bearing plyometrics

Goals

Functional Tests

Single leg and cross over hop for distance within 10-15%
FMS with score of at least 15 out of 21
Complete sports specific drills without exacerbation of symptoms or reactive instability

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MONTHS: 6+

Strengthening

- This sports specific phase should transition from the rehab specialist in the clinic to athletic trainer or sports performance specialist as appropriate.
- Continue sports specific agility exercises
- Progress gradually to 100% per tolerance

- **ROM**
  - Continued with emphasis on terminal extension and pain-free flexion
  - Exercise bike for endurance
- **Strength**
  - Progress WB strengthening/stability/balance/proprioception exercise
    - Lunges, shuttle, steamboats, side-stepping, leg press, step up/down, etc
  - Begin sub-maximal leg extensions in protected range (see precautions above)
  - Step downs (provide verbal and visual feedback for proper technique)
    - Begin with bilateral and progress to unilateral
    - Begin with 2" and progress step height per mechanics
    - No plyometric training
  - Begin bilateral shuttle jumping ≤ 50% body weight (shuttle, aquatics, Total Gym, etc)
  - Continue to progress lumbosacral strengthening
- **Goals**
  1. Increased strength/stability/proprioception with therapeutic exercise without exacerbation of symptoms
  2. No reactive instability or effusion with WB activity

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Appendix A

IKDC #10 Question of Function

"How would you rank the function of your knee on the scale of 0 to 10 with 10 being normal, excellent function and 0 being the inability to perform an of your usual daily activities which may include sports?"

FUNCTION PRIOR TO YOUR KNEE INJURY:

	0	1	2	3	4	5	6	7	8	9	10	
Couldn't perform daily activities	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	No limitation in daily activities

CURRENT FUNCTION YOUR KNEE:

	0	1	2	3	4	5	6	7	8	9	10	
Couldn't perform daily activities	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	No limitation in daily activities

Functional tests

1.) **Single hop for distance**: Have the subject line their heel up with the zero mark of the tape measure, wearing athletic shoes. The subject then hops as far as he can, landing on the same push off leg, for at least 3 seconds. The arms are allowed to move freely during the testing. Allow him to perform 4 practice hops on each leg. Then, have the subject perform 4 trials, recording each distance from the starting point to the back of the heel. Average the distances for each limb.

2.) **Cross-over hop for distance**: This test is set up with a 15cm strip, extending 6 meters. The subject lines his heel up at the zero mark of the tape measure and hops 3 times on one foot, crossing over the center line each time. Each subject should hop as far forward as he can on each hop, but only the total distance hopped is recorded Allow the subject to perform 4 practice rounds before recording. Average the distances for each limb.

Scoring:

- Begin with the uninvolved leg. If using tape to mark distance, remove it before the next trial to minimize visual cues.
- Greater than a 15% difference in average distance between the right and left limbs should be cause for concern, indicating quad, and hamstring weaknesses that should be addressed prior to return to sport.
- If patient fails test, evaluate and implement appropriate strength/stability/balance exercise strategies. Once resolved, test again.