Brian Forsythe, MD
Sports Medicine
Shoulder, Elbow, Knee Arthroscopy
Shoulder Replacement Surgery

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DISCHARGE INSTRUCTIONS & PHYSICAL THERAPY PROTOCOL: ACL Reconstruction and Posterolateral Corner Reconstruction – Allograft With or Without Meniscus Repair

- Recovery after knee surgery entails controlling swelling and discomfort, healing, return of range-of-motion of the knee joint, regaining strength in the muscles around the knee joint, and a gradual return to activities. The following instructions are intended as a guide to help you achieve these individual goals and recover as quickly as possible after your knee surgery.

COMFORT

- **Elevation** – Elevate your knee and ankle above the level of your heart. The best position is lying down with two pillows lengthwise under your entire leg. This should be done for the first several days after surgery.
- **Swelling** – A cooling device may be provided to control swelling and discomfort by slowing the circulation in your knee. Initially, this can be used continuously for the first 3 days, (while the initial post-op dressing is on). After 3 days, the cooling device should be applied 3 times a day for 10-minute intervals.
  - If a cooling device is not provided at the time of surgery, place crushed ice in a plastic bag over your knee for 20 minutes at a time with at least a 60 minute rest between sessions.
- **Medication**
  - **Pain Medication-** Take medications as prescribed, but only as often as necessary. Avoid alcohol and driving if you are taking pain medication.
  - **Anti-coagulation medication:** A medication to prevent post-operative blood clots has been prescribed (Aspirin, Lovenox, etc.) This is the only medication that MUST be taken as prescribed until directed to stop by Dr. Forsythe.
  - **Nausea Medication –** Zofran (Odansetron) has been prescribed for nausea. You may take this as needed per the prescription instructions.
  - **Constipation Medication -** Colace has been prescribed for constipation. Both your pain medication and the anesthesia can cause constipation. Take this as needed.
- **Driving –** Driving is NOT permitted for four weeks following right knee surgery.

ACTIVITIES

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- **Range-of-Motion** – Move your knee through range of motion as tolerated. This must be done while sitting or lying down.
  - **Note**: If you underwent a meniscal repair, you may have range of motion restrictions.
- **Locking Knee Brace** – The brace is to be worn for up to 4-6 weeks following surgery. It will be locked straight until bone healing and good knee strength have been achieved (usually 5-6 weeks after surgery). At that time your doctor will determine if your leg has enough strength to allow your brace to be unlocked. You may unlock the brace while sitting but lock the brace before standing. Sleep with the brace on until directed by Dr. Forsythe.
- **Exercises** – These help prevent complications such as blood clotting in your legs. Point and flex your foot and wiggle your toes. Thigh muscle tightening exercises should begin the day of surgery and should be done for 10 to 15 minutes, 3 times a day, for the first few weeks after surgery.
- **Weightbearing** –TTWB for 6 weeks post op You are allowed to put partial weight on your operative leg with only your toe touching the ground. Keep your brace locked in a straight position. Walk using two crutches or a walker. You may touch your foot on the floor for balance. Do this within the limits of pain.
  - **Note**: If you underwent a meniscus repair (not a debridement), you will NOT be allowed to put full weight on your operative leg for 1 week.
- **Physical Therapy** – PT is usually started 1-2 weeks after surgery. You should call the physical therapist of your choice for an appointment as soon as possible after surgery. A prescription for physical therapy, along with physical therapy instructions (included in this packet) must be taken to the therapist at your first visit.
- **Athletic Activities** – Athletic activities, such as swimming, bicycling, jogging, running and stop-and-go sports, **should be avoided** until allowed by your doctor.
- **Return to Work** – Return to work as soon as possible. Your ability to work depends on a number of factors – your level of discomfort and how much demand your job puts on your knees. If you have any questions, please call your doctor.

❖ WOUND CARE

- **Bathing -** Tub bathing, swimming, and soaking of the knee **should be avoided** until allowed by your doctor - Usually 4-6 weeks after your surgery. Keep the dressing on, clean and dry for the first 3 days after surgery.

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- You may shower 3 days after surgery with WATERPROOF band-aids on. Apply new band-aids after showering. Incision should remain clean and dry.

- **Dressings -** Remove the dressing 3 days after surgery. Your stitches will be left in until about 1-2 weeks and will be removed at the post-op visit. You may apply band-aids to the small incisions around your knee and cover your larger incision with sterile gauze. Keep incision clean and dry.

❖ EATING

- Your first few meals, after surgery, should include light, easily digestible foods and plenty of liquids, since some people experience slight nausea as a temporary reaction to anesthesia

❖ CALL YOUR PHYSICIAN IF:

- Pain in your knee persists or worsens in the first few days after surgery.
- Excessive redness or drainage of cloudy or bloody material from the wounds (Clear red tinted fluid and some mild drainage should be expected). Drainage of any kind 5 days after surgery should be reported to the doctor.
- You have a temperature elevation greater than 101°
- You have pain, swelling or redness in your calf.
- You have numbness or weakness in your leg or foot.

❖ RETURN TO THE OFFICE

- Your first return to our office should be within the first 1-2 weeks after your surgery. You can find your appointment for this first post-operative visit in the post op instruction folder.

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REHABILITATION PROGRAM:
ACL, Posterolateral Corner Reconstruction – Allograft

NOTE: The following instructions are intended for your physical therapist and should be brought to your first physical therapy visit.

- The intent of this protocol is to provide the clinician with a guideline for the post-operative rehabilitation course of a patient that has undergone a PLC or PLC/ACL reconstruction. It is by no means intended to be a substitute for one's clinical decision-making regarding the progression of a patient's post-operative course based on their exam findings, individual progress, and/or presence of post-operative complications. If a clinician requires assistance in the progression of a post-operative patient, they should consult with the referring surgeon.

GENERAL GUIDELINES

- Program is designed to protect the PLC
- Even with addition of ACL no changes made in rehab
- No active hamstring work
- Assume 12 weeks graft to bone healing time
- Caution against posterior tibial translation (gravity, muscle action)
- **PCL with posterolateral corner or LCL repair, avoid varus stress**

GENERAL PROGRESSION OF ACTIVITIES OF DAILY LIVING

Patients may begin the following activities at the dates indicated (unless otherwise specified by the physician):

- Showering: once dressing removed; no immersion until stitches removed and wounds healed
- Sleep without brace: 8 weeks post-op
- Driving: when safely able to operate the controls of the vehicle. Any time for left knee

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surgery (assuming automatic transmission), and longer for right leg surgery.

- Full weight bearing without assistive devices – 6 weeks for just PCL, but need 8 weeks when any lateral side surgery also performed.

PHYSICAL THERAPY ATTENDANCE

The following is an approximate schedule for supervised physical therapy visits:

- Formal PT begins at physicians' discretion (2-4 weeks post-op)
- 3 times per week is optimal
- Home exercises daily as instructed by the therapist
- Supervised physical therapy takes place for approximately 3-5 months post-op

PHASE I:

Begins immediately following surgery and lasts approximately one month. Patient is to perform ROM exercises and hip, knee and ankle strengthening as directed daily.

Goals:

- Protect healing bony and soft tissue structures
- Minimize the effects of immobilization through:
- Early protected range of motion (protect against posterior tibial sagging)
- PRE's for quadriceps, hip and calf with an emphasis on limiting patellofemoral joint compression and posterior tibial translation
- Patient education for a clear understanding of limitations and expectations of the rehabilitation process

Brace:

- 0-2 weeks brace on at all times except to shower fixed at 0 degrees.

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- 2-4 weeks post-op the brace is unlocked for passive range of motion to 60 degrees with patients instructed in passive flexion and active knee extension to prevent posterior tibial translation

Weight bearing Status

- TTWB with crutches, brace is locked at full extension.

Special Considerations:

- Pillow under proximal posterior tibia at rest to prevent posterior sag

Therapeutic Exercises:

0-2 weeks

- Hip flexion, extension, abduction and adduction as able
- Straight leg raises for quads
- Ankle Pumps

Add at first post-op visit 2 weeks out:

- Calf press with Theraband
- 2-4 weeks post-op the brace is unlocked for passive range of motion to 60 degrees with patients instructed in passive flexion and active knee extension to prevent posterior tibial translation

PHASE II:

Begins at one-month post-op and extends to the 12th post-op week

Goals:

- Increase range of motion
- Progress in weight bearing
- Continue lower extremity muscle toning (except active hamstring work)
- Continue to protect graft(s)

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Brace and Weight bearing Status:

- 4-6 weeks: Patient continues to be TTWB in brace. Brace is removed during PT for strengthening and stretching. Avoid varus stress during this phase if concomitant posterolateral corner reconstruction.

At **6 weeks** for PCL, or PCL/ACL brace is removed, for any lateral or posterolateral surgery this is extended to **8 weeks**

Therapeutic Exercises:

- 4-6 weeks: When patient exhibits independent quad control, may begin open chain extension
- Begin isometric quads and co-contraction of quads/hams in extension only, progress to active knee extension as tolerated from point of maximal flexion (passively) to full extension.
- Progress to mini-squats when able to be full weight bearing
- May begin or continue hip flexion/extension/Abduction/Adduction with knee fully extended.
- While pool therapy is not routinely prescribed, if facility has a pool then this is allowed in the first month. Ambulation in pool (work on restoration of normal heel-toe gait pattern in chest deep water
- 6-12 weeks: Once patient is full weight bearing and does not require the brace, therapy can be liberalized and proceed on a more "as tolerated" basis. Stationary Bike: Foot is placed forward on the pedal without use of toe clips to minimize hamstring activity. Seat slightly higher than normal
- Closed kinetic chain terminal knee extension utilizing resisted band while standing or weight machine. For leg press, knee flexion should be limited to 90° during exercises.
- Stairmaster and/or elliptical machines can be used for cardio and leg conditioning
- Balance and Proprioception activities (e.g. single leg stance or mini-trampoline)

* It is important to avoid open-chain hamstring activity during this period as this may cause posterior tibial translation and may stretch the graft

PHASE III:

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Begins approximately three months post-op, and extends to nine months post- op. Expectations for advancement to Phase III:

Goals

- Restore any residual loss of motion that may prevent functional progression
- Improve functional strength and proprioception utilizing closed and/or open kinetic chain exercises
- Continue to work on restoration of functional progression of the extremity and the patient as a whole in preparation for return to activity or sports

Therapeutic Exercises:

- Continue lower extremity exercise progression
- Treadmill walking progress to running as tolerated
- Stairmaster/elliptical trainer, swimming is OK (no breast stroke)
- May progress to out door biking, walking and ultimately running
- May play golf or bowling if able
- No twisting turning or jumping activities yet

PHASE IV:

Return to sport at approximately 6 months to 9 months

Goals:

- Safe and gradual return to work or athletic participation
- This may involve sports specific training, work hardening or job restrictions as needed
- Maintenance of strength, endurance and function
- Running progression
- Figure 8, Carioca, Backward running, cutting
- Jumping (plyometrics) if needed for sport (i.e., volleyball or basketball)

* * * These instructions are to be used as general guidelines. Before 3 months it is important not to go any faster even if the patient seems able, since the most important consideration is graft protection. Please have physician contacted if there are questions or concerns