Jourdan M. Cancienne, M.D.
Sports Medicine
Shoulder, Hip, Knee Arthroscopy
Shoulder Replacement Surgery

MIDWEST ORTHOPAEDICS AT RUSH

Midwest Orthopaedics at Rush
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963 129th Infantry Dr. Joliet, IL 60435

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DISCHARGE INSTRUCTIONS & PHYSICAL THERAPY PROTOCOL:
Open Reduction and Internal Fixation of Tibial Plateau Fracture

- Recovery after fracture fixation 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. Do not place pillows under the knee (do not maintain knee in a flexed or bent position), place pillows under the foot and ankle. This should be done for the first several days after surgery. Ensure the leg is resting in a straight position.
  - **Cold Therapy**
    - If you elected to receive the **circulating cooling device**, 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 20-30 minute intervals.
    - If you elected to receive the **gel wrap**, this may be applied for 20 minutes on, 20 minutes off as needed. You may apply this over the post-op dressing. Once the dressing is removed, be sure to place a barrier (shirt, towel, cloth, etc.) between your skin and the gel wrap.
    - If you elected to use **regular ice**, this may be applied for 20 minutes on, 20 minutes off as needed. You may apply this over the post-op dressing. Once the dressing is removed, be sure to place a barrier (shirt, towel, cloth, etc.) between your skin and the ice.
  - **Medication**
    - **Pain Medication-** Take medications as prescribed, but only as often as necessary. Avoid alcohol and driving if you are taking pain medication.
      - You have been provided a narcotic prescription postoperatively. Use this medication sparingly for moderate to severe pain.
      - **You are allowed two (2) refills of your narcotic prescription if necessary.**
      - When refilling pain medication, weaning down to a lower potency or non-narcotic prescription is recommended as soon as possible.

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- Extra strength Tylenol may be used for mild pain.
- You may take over the counter NSAIDs (Aleve, Ibuprofen, Advil) **for breakthrough pain**, follow instructions on the bottle.

- **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. Cancienne.
- **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.

❖ ACTIVITIES

- **Range-of-Motion** – Maintain the knee locked in extension in the brace at all times until follow up with Dr. Cancienne.
- **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. 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 or driving but lock the brace before standing. Sleep with the brace on and locked straight until directed by Dr. Cancienne.
- **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** – You will be non weight bearing for at least 6 weeks. Two crutches and no weight bearing should be followed until directed to discontinue by Dr. Cancienne.
- **Physical Therapy** – **PT is usually started after the first postoperative visit at 2 weeks after surgery**. You should call the physical therapist of your choice for an appointment following 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.

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- **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.
- **Driving**
  - **Right knee surgery:** Driving is NOT permitted for the first 4 weeks following right knee surgery.
  - **Left knee surgery:** Driving is allowed when comfortable AND you are not taking narcotic pain medication.

❖ 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.
  - On day 3 you may remove the dressing. Leave the white strips (steri strips) in place and cover with a clean dry dressing.
  - On day 3 you may shower with the incision covered with a waterproof bandage
  - After showering, replace with a clean, dry dressing

❖ 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 leg 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.

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- RETURN TO THE OFFICE
  - Your first return to our office will likely be within 2 weeks after your surgery. You can find your appointment the appointment date and time for the first post-operative visit in this folder.

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REHABILITATION PROGRAM:
Open Reduction and Internal Fixation of Tibial Plateau Fracture

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

- INTRODUCTION
  - Tibial plateau fractures can occur as a result of high-energy trauma or in low-energy trauma when bone quality is poor.
  - Following surgery, Early range of motion (ROM) of the knee and the maintenance of non-weight bearing (NWB) on the affected leg are generally considered critical. Prolonged immobilization in a cast has been found to increase stiffness that is not amenable to physical therapy. In general, the goal should be to gain 90 degrees of flexion ROM by 4 weeks post operatively.
  - The average time for fracture union is 12 weeks in those over 65 years of age, but it often will depend on the type and extent of fracture as well as the patient's bone quality. Delayed weight bearing is most important in those who have sustained depression fractures.
  - With stable fractures, non-weight-bearing should be maintained for 6-8 wks, with progression to PWB (50%) at that time.

- **Phase I: 0-6 weeks:**
  - **Weeks 0-4**
    - TTWB with crutches with brace locked in extension at all times except for PT for first 4 weeks
    - ROM: obtain full extension and advance flexion as tolerated with goal of 90 degrees by 4 weeks. Work PROM to 90 degrees of flexion.
    - Modalities as needed.
    - Exercises
      - Heel slides, quad and hamstring sets, patella mobilizations, gastroc/soleus stretch (NWB)
      - *SLR with brace locked in full extension until patient has* ***no extension lag*** *with SLR, then unlock brace.* **Start BFR training**
  - **Weeks 4-6**
    - TTWB with crutches
    - Maintain full extension, advance to full flexion with goal of 120 degrees by 6 weeks
    - Brace can be unlocked when awake, **continue to lock in extension for sleep**
    - **May add prone hangs and extension board as needed**

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- **Phase II: 6-8 weeks:**
  - 50% WB x 1 week, then advance by 25% per week as tolerated with crutches
  - Advance to full A/AAROM
  - Brace unlocked, remove for sleep
  - Begin SLR out of brace with progressive ***closed chain*** exercises
  - Continue BFR
  - Add stationary bicycle with light resistance
- **Phase III: 8-12 weeks**
  - FWB, wean off crutches
  - Full AROM
  - No brace
  - Advance closed chain exercises, stationary bike with increasing resistance
- **Phase IV: 12-16 weeks**
  - FWB, Full AROM, No brace
  - Begin open chain strengthening, swimming and treadmill for exercise
  - Progress to elliptical
- **Phase V: 4-6 months**
  - FWB, Full ROM, No brace
  - Begin jogging progression as tolerated
  - Return to unrestricted activity at 6 months