**Dr. Friedman’s Post-Operative Instructions:**

***Knee Surgery – Tibial Tubercle Osteotomy (TTO)***

**These instructions are for the first two (2) weeks after surgery**

**WHEN YOU GO HOME:**

**1. Your weight bearing status is 50% weight bearing. Your brace should be locked in extension while ambulating. You should still be using crutches at the time of your first postoperative visit.**

**2. Keep the operative leg elevated above the heart as much as possible. Avoid the temptation of putting a pillow behind your knee, as this will cause problems with regaining your extension (getting your knee straight) after surgery.**

**3. ICE your knee with a cold therapy unit, bag of ice, or a bag of frozen peas. Do not ice or use your cold therapy unit for more than 20 minutes at a time to avoid causing frostbite.**

**4. Do not drive until you have discontinued the narcotic pain medications and have been approved by your doctor.**

**5. Return to work will depend on your type of employment.**

**EXERCISES: START POST-OPERATIVE DAY 1 or 2:**

**1. Quad Sets. With this exercise, you tighten your thigh muscles and hold for five (5) seconds. Do a minimum of three (3) sets of ten (10) repetitions. When you tighten your thigh muscles, it will feel like your knee is being pushed into the ground.**

**2. Bridging Exercises. Roll a towel/pillow and place it under your heel with nothing under your knee/thigh. Hold this position for 5 to 10 minutes. Gravity will slowly assist with straightening your knee. Alternatively, you can sit in a chair and place your foot up on another chair/ottoman. You can assist this exercise by resting your hand on your thigh, near the knee.**

**3. Calf Pumps. Move both feet at the ankle up and down. Perform at least 10 times an hour every 1-2 hours until you are up and around regularly. This encourages blood flow in the lower legs and helps reduce the risk of DVT (blood clot).**

**WOUND CARE/DRESSINGS:**

**1. Expect minimal bloody drainage on surgical dressings. Call the office if the bandage becomes saturated or is leaking. You may remove your dressings at 5 days.**

**2. It is very important to keep the dressing absolutely dry. Showering is usually allowed after the dressing is removed after 5 days. Do not soak the knee until the doctor says it is ok to do so. (in other words- no bathtub, hot tub, Jacuzzi, swimming pool or ocean).**

**3. Do not put ointment on your incisions or touch your incisions (wounds) until the doctor says it is ok to do so.**

**DIET:**

**1. After surgery, begin with liquids and light foods (jellos, soups, etc). Progress to your normal diet if you are not nauseated. Sometimes the digestive system is slow after anesthesia and can be also slowed by the narcotic pain medication.**

**2. It is OK to begin a regular healthy diet on day two after surgery.**

**PHYSICAL THERAPY:**

**You will begin formal physical therapy after your first post-operative visit.**

**GENERAL MEDICATION INFORMATION AFTER SURGERY**

**You will receive multiple prescriptions before or at the time of surgery, typically including:**

**1. Narcotic (i.e. Norco). A narcotic is a strong pain medication that blocks the sensation of pain. Once your pain decreases, discontinue the use of this medication as it can be addictive. This medication typically helps with pain, but also causes drowsiness, constipation, nausea, and itching. Avoid combining this medication with Tylenol. Drink plenty of water to help decrease the risk of constipation.**

**2. Non-steroidal Anti-inflammatory Drug/NSAID (i.e. Meloxicam, Naproxen). This decreases the inflammation and swelling after surgery. This should be taken for 2-3 weeks after surgery. Use this medication as directed. Take with food. Speak with your doctor if you have a history of heartburn, ulcers, or heart issues.**

**3. Stool softener (i.e. Colace). A stool softener is often necessary while taking narcotic medication to help with constipation. Use this medication while taking the prescribed narcotic medication.**

**4. Anti-nausea medication (i.e. Zofran, compazine). Anesthesia and narcotics can cause significant nausea in the first 24-48 hours after surgery. Take the anti-nausea medication as needed to help with these symptoms.**

**5. Aspirin. Take aspirin as directed to help prevent blood clots.**

**6. Gabapentin. This is another medication that helps to reduce pain after surgery. Take three times a day for 5 days, two time a day for 2 days, and once a day for 2 days. This medication may cause drowsiness.**

**RECOMMENDATIONS FOR PAIN CONTROL AFTER SURGERY**

**Many patients will receive a nerve block to help with pain control during and immediately after surgery. This temporarily causes numbness and difficulty moving the affected leg. There will be some pain after the nerve block wears off. Pain is typically worst the first few days following surgery.**

**Starting after surgery and BEFORE your nerve block wears off, follow the following pain medicine regimen for the first 24-48 hours after surgery:**

**One or two narcotic (pain) pills approximately every 4 hours. The day after surgery, some patients may need to take 2 pills every 4 hours for pain relief. If taking 2 pills every 4 hours initially, you should be able to decrease the dose to 1 pill every 4 hours after 48 hours or so. Begin spreading out the time interval between narcotic doses as tolerated. Many patients are completely off their narcotics by the first post-operative visit.**

**WEAN off the narcotics, ie, take one pain pill every 6 hours, then 8 hours, then 12 hours, then discontinue.**

**Use plenty of ice on your knee to help reduce inflammation and pain. Do not keep ice on your knee for more than 20 minutes at a time to prevent frostbite.**

**FOLLOW-UP CARE:**

 **WHEN TO CALL THE OFFICE:**

 **Call if any of the following are present:**

 **\* Increasing swelling or numbness in the toes**

 **\* Unrelenting pain**

 **\* Fever greater than >101.5 F or 38.5 C, or chills**

 **\* Excessive nausea or vomiting due to pain medication**

 **\* Color change in the toes. Your toes should be pink and warm.**

 **\* Continuous drainage or bleeding from the dressings**

**\* Extreme pain on the back of the calf, shortness of breath, or**

**chest pain which may be warning signs of a blood clot or**

**pulmonary embolus. If symptoms are severe, dial 9-1-1**

 **\* ANY other worrisome condition**

TTO Recovery Timeline

Recovery from tibial tubercle osteotomy with or without ligament reconstruction is a long process but the ultimate goal is to return to sports safely with minimal risk to the reconstruction or other structures in the knee.

Post op Day 1-3: The highest pain is the first 24-48 hours after the nerve block wears off after surgery. Take pain medications as instructed, keep the leg elevated as much as possible.

Post-op Day 4-14: The pain improves and you will return for your first post-operative visit. X-rays will be taken, and your dressings will be removed. We will review your arthroscopic images and go over the plans for therapy.

Post-op Weeks 3-4: Physical therapy will start. You may unlock your brace to practice range of motion when not walking. Your brace limit will be set to 45 degrees. You should continue to perform your exercises and continue to use crutches.

Post-op Weeks 5-6: You will advance brace limits to 90 degrees. You should continue to perform your exercises.

Post-op Weeks 7-8: You may start weight bearing as tolerated with your brace unlocked.

Post-op Weeks 9-12: You will wean out of your brace once you can perform a straight leg raise.

Post-op Week 12+: You may return to activities of daily living and strengthening with physical therapy.

Post-Op Week 20+: Around this time you may return to running and sports drills.