



Cartilage Repair Center

Tom Minas, MD, MS
Director
www.cartilagerepaircenter.org

901 45th Street, Kimmel Bldg.
West Palm Beach, FL 33407
P: 844-714-5293 | 561-844-5255
F: 561-844-5245

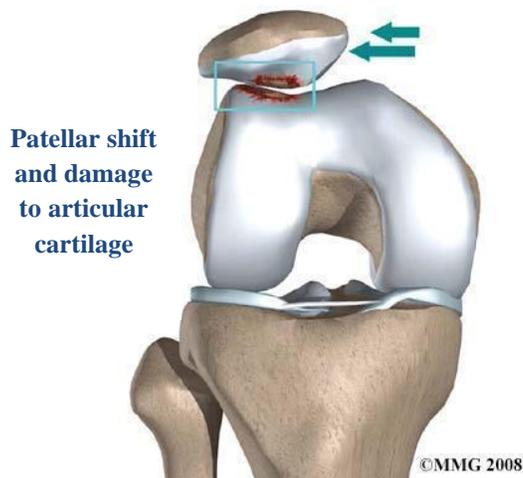
Ash Itinger, Admin Ext 246
www.cartilagerepaircenter.org
www.paleyinstitute.org

What is a Tibial Tubercle Osteotomy (TTO)?

A Tibial Tubercle Osteotomy (TTO) is a surgical procedure used to treat patella (kneecap) maltracking with or without cartilage defects.

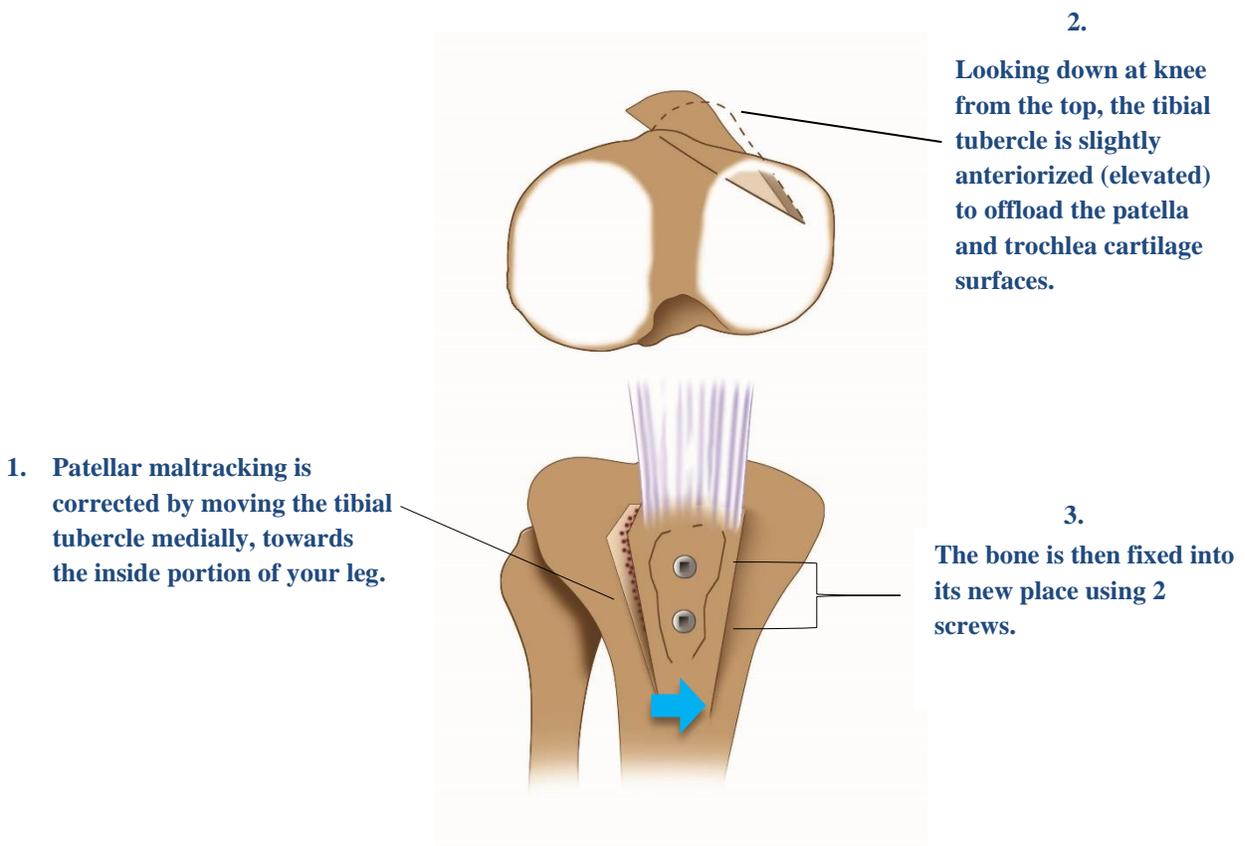
Who is a candidate for a Tibial Tubercle Osteotomy?

Tibial tubercle osteotomies are used to treat patients who suffer from painful patellar maltracking. These patients may have had issues with patella dislocations in the past. Often, patients who suffer from patellar maltracking have chronic anterior knee pain. This is typically felt as pain with going up and down stairs and/or sitting for prolonged periods of time. Tibial tubercle osteotomies are only effective in patients who do not yet have bone on bone osteoarthritis between their patella and femur (patellofemoral joint). Tibial tubercle osteotomies can be performed in conjunction with MACI (matrix autologous chondrocyte implantation) as an effort to treat both the maltracking and the cartilage damage caused by it.



What will happen during my surgery?

Your surgery will be performed using either a general anesthetic or a spinal anesthetic, depending on your preference. During your surgery your surgeon will make a cut across the upper portion of your tibia (shin bone). The cut that is made will be just behind what is known as the tibial tubercle. This is the area of your tibia where your patellar tendon attaches. Making this boney cut allows your surgeon to relocate your tibial tubercle to a more centralized location, thus correcting any maltracking. Once your tubercle has been repositioned, it will be fixed back to your upper tibia using two screws. These screws act like a cast to hold the bone in place while it heals. The raw bone surfaces are covered with Grafton™, a bone putty that speeds up healing and lessens bone bleeding. The screws do not need to be removed. Some patients do find that they have irritation from the retained hardware. In these cases, both screws can be removed during a day surgical arthroscopy. Once your osteotomy is completed, your skin incision will be closed using “dissolvable” sutures. Your wound will be dressed, and you will be awakened from anesthesia. The picture below depicts the surgical technique of a tibial tubercle osteotomy.



What can you expect post-operatively after a Tibial Tubercle Osteotomy?

When you awake from surgery, you will have a brace on your leg that will keep your leg straight. It will be important for you to always wear this brace when you are up and about. You do not have to wear your brace to sleep. You will also be given crutches. You will remain 50% weight bearing for a period of 6-8 weeks to protect the bone cut as it heals. This means that you will always walk with two crutches putting ½ body weight on your leg to the ground as guided

by comfort. You will also receive a continuous passive motion (CPM) machine. The CPM machine gently puts your knee through a preset range of motion (ROM). This is designed to ensure that you do not get stiff after surgery and will be used for 3-8 hours per day.

Depending on your surgeon and how you are feeling you will spend 1-2 nights in the hospital. Do plan on spending at least 1 night. This is to make sure that you are comfortable and that your pain is well controlled. This time in the hospital also allows you to also meet with physical therapy and get some early exercise and crutch training.

After surgery, you will also be on a baby aspirin twice daily for 3 weeks, (81 mg 2x/day x 3 weeks). This is done as a preventative measure for all our patients to help prevent blood clots following surgical intervention.

How will my pain be controlled after surgery?

During your hospital stay, your pain will be controlled using IV pain medication. One of the goals of your care will be to transition you from IV pain medication to oral pain medication. This is often achieved on the first day after surgery. You will be sent home from the hospital with a prescription for oral pain medication to be filled at your local pharmacy. The most prescribed post-op pain medications include oxycodone and tramadol. Most patients will require regularly scheduled doses of pain medication for the first 1-2 weeks. Following week 2, you will begin to decrease your pain medication use to prior to physical therapy and before bedtime. Most patients will not require any pain medication past week 4-6. Cold ice therapy is also very effective for pain relief without medication side effects.

For pain medication refills, you will need to come to the office for a face-to-face, in-person appointment. Florida State Law does not allow us to call in prescriptions or refill pain medication without an office visit. We are only allowed to give 7 days of pain medication at a time. Be sure to follow the directions carefully. It is important to know how to obtain your pain medication refills appropriately and in a timely manner.

When will I follow-up with my surgeon after surgery?

Your first post-operative visit will take place 2 to 3 weeks after your surgery. This appointment is critical for checking your incision healing and range of motion as well as to answer any questions you may have in the first few weeks following surgery. You will then follow-up 6 weeks, 12 weeks, 6 months, and one year after surgery. At 1-year post-op, you will discuss with your surgeon your return to higher level activity. After your first year, you will follow with your surgeon on a yearly basis.

Frequently Asked Questions

How do I get insurance approval for surgery? Your insurance approval will be handled by your surgeon's finance office. Often, you do not need to do anything but wait for the administrative assistant to contact you to let you know you have been approved. In some instances, appeals need to be made to your insurance company for denial of services. If this is the case, the administrative assistant will contact you and instruct you on how to proceed.

How long is my insurance approval good for? Most insurance approvals are good for a few months from the date of approval.

When will I start physical therapy? You will start physical therapy beginning the day after surgery in the hospital. This will be continued once you are discharged.

What will I do during physical therapy? The primary goal of physical therapy is to initially increase range of motion (ROM), so that you do not get stiff following surgery. You will then begin to work on increasing strength after surgery. You will be provided with a detailed protocol of what you should and should not be doing during each postoperative phase. You will provide this to your physical therapist.

I've heard about a CPM machine, what is this and will I use one? A CPM machine is a continuous passive motion machine that is used following knee surgery to help patients regain range of motion. You will begin using a CPM machine 2-3 days after surgery and will continue using it for a period of 3 weeks for 3-8 hours per day. The CPM machine will be provided to you and is usually covered by your insurance.

When do I need to wear my brace? You will need to wear your brace anytime you are up moving around on your crutches. You will use your brace for 6-8 weeks on average. You do not need to wear your brace for CPM, sleeping, or when you are sitting.

How long will I need to use my crutches? Depending on how quickly your bone heals and your surgeon's preference you will need to use your crutches on average 50% body weight until the bone is healed on x-ray, usually 6-8 weeks.

When can I shower? You can remove the ACE wrap and gauze/foam dressing 24 hours following surgery. Under the ACE wrap and gauze/foam dressing, you will have a large adhesive bandage covering your incision. You can shower directly on the large adhesive bandage and allow water to run over the bandage. This bandage can be removed 7 days after surgery at home. You can then shower normally with the incision uncovered. Do not submerge your operative knee in a bathtub, pool, ocean, etc., until cleared by the surgeon.

When can I go back to work? This will be different for each patient and depends largely on the type of work you do. Most patients who work in a sedentary position or desk work will be back to work by 3-6 weeks. Those patients who work in more labor-intensive jobs may be out of work for 3-6 months.

When can I resume my regular activity? Return to regular activity depends highly on each individual patient's definition of regular activity. Low impact activity such as walking, swimming, bike riding, and elliptical trainer can all be resumed by 4-5 months. Higher demand activity, such as running and sports, will not be able to be resumed until at least 9 months to 1 year postoperatively.

Will I need to stay in the hospital? You may be required to spend 1-2 nights in the hospital.

I don't like how narcotic pain medication makes me feel, can I take something else? You may use Tylenol (acetaminophen) for pain control following surgical intervention. Ice therapy is very effective without medication side effects- PolarCare™, Ossur™ continuous cold ice flow and Game Ready™ continuous ice flow compression therapy are all effective ice therapy machines.

We do ask you to refrain from using any anti-inflammatory medications (NSAIDs) for the 3 months following surgery, as these medications can slow the healing of your bone. Common medications to avoid include Advil, Aleve, Ibuprofen, Naproxen, Celebrex, etc.

Who do I call if I have a question prior to my appointment? If you have questions regarding your upcoming surgery, you may call your surgeon's nurse practitioner or research assistant.