# SHOULDER, KNEE & SPORTS MEDICINE

### **Tibial Tubercle Avulsion Fracture**

#### Indications

The patella tendon runs from the patella (kneecap) to the tibia (lower leg bone) to provide the distal (end) attachment of the quadriceps muscle to the tibia (lower leg bone) at the tibia tubercle. When the tibial tubercle is avulsed (pulled) off, there is loss of continuity between the quadriceps muscles (which straighten the knee) and the tibia (lower leg bone). Therefore, when someone suffers a displaced tibia tubercle fracture, they are unable to straighten their knee, or walk normally without the knee giving out. The tibial tubercle is usually avulsed by a sudden episode of violent quadriceps muscle activity, such as with jumping, hurdling, or starting a sprint. Repairing the tibial tubercle with the patellar tendon back to the tibia is necessary to allow normal gait and perform other daily activities.



X-ray revealing tibial tubercle avulsion fracture

### Contraindications

- Inability or unwillingness to complete the postoperative program or to perform the rehabilitation necessary
- Infection of the knee (current or previous; not an absolute contraindication)



Schedule online now

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### **Risks and Complications of Surgery**

- Infection
- Swelling or continued pain of the knee
- Re-injury of the repair
- Knee stiffness (loss of knee motion) or muscle weakness
- Clot in the veins of the calf or thigh (deep venous thrombosis, phlebitis) that may break off in the bloodstream and go to the lungs (pulmonary embolus which is rare)

### **Hospitalization and Anesthesia**

- Outpatient surgery (you go home the same day)
- General anesthetic, femoral block (See Your Surgical Experience booklet)

### **General Surgical Technique**

The goal of the surgery is to repair the torn tibial tubercle with the patellar tendon back to the tibia (lower leg bone) to restore normal knee mechanics. Dr. Chudik identifies the avulsed tibial tubercle through a limited incision just over the knee. Once identified, he places either screws or strong sutures reconnect the avulsed tibial tubercle and patellar tendon back to the tibia. Following the repair, it is important to protect the repair by keeping the knee straight locked in a brace.





Post-operative x-ray showing screws realigning tibial tubercle to anatomic position



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### **Preoperative Instructions**

- Discontinue birth control pills
- Stop blood thinners such as aspirin, Coumadin<sup>®</sup>, Lovenox<sup>®</sup>, Xarelto<sup>®</sup>, Eliquis<sup>®</sup> according to the prescribing doctor's directions
- Stop anti-inflammatory medicines such as ibuprofen, Advil<sup>®</sup>, Motrin<sup>®</sup>, Naprosyn<sup>®</sup>, Alleve<sup>®</sup>, etc.)
- Stop nutritional supplements and drinks like Vitamin C, ginseng, ginkgo biloba, etc.
- Stop smoking for surgery and during the first six weeks postoperatively to allow proper tissue healing

### Do not eat or drink anything from midnight, the evening before surgery

#### **Post-Operative Course**

- A post-op hinged knee brace for eight weeks (locked straight for the first six weeks)
- Keep the wound clean and dry for the first 10 to 14 days after surgery. Showering lightly is allowed after two weeks but wounds cannot be submerged under water for three weeks
- If right lower extremity is involved, driving after six to eight weeks and when strength and motion allows
- Return to school/sedentary work in less than one week as long as the extremity can be elevated
- Physical therapy to restore motion, strength, and proprioception (balance) for up to four to six months.
- **Dr. Chudik's Functional Capacity Evaluation** to ensure not only that your knee is fully rehabilitated, but also that any errors in movement patterns known to put patients at risk for reinjuring their reconstruction and their other knee was corrected.

#### **Return to Activity**

- May walk immediately with knee locked straight in brace
- Return to walking and regular daily activities once brace is opened up to allow motion at six weeks after surgery
- Return to running at about three month's post-op
- Return to sports at four to six month's post-op depending on level of activity





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## SHOULDER, KNEE & SPORTS MEDICINE

### Scheduling Surgery

Contact Dr. Chudik's surgery scheduler at 630-324-0402 or *contactus@chudikmd.com* to:

- Schedule the date and location of surgery (the hospital will call the day before with the confirmed arrival time)
- Schedule a pre-operative appointment
- Schedule a post-operative appointment for 10 to 14 days after surgery to remove sutures and review post-operative instructions

Notify My Office if Symptoms Worsen





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