# STEVEN CHUDIK MD

#### SHOULDER, KNEE & SPORTS MEDICINE

# Open Tibial Tubercleplasty with Debridement and Repair of the Patellar Tendon for Symptomatic Mature Osgood Schlatter's Disease

#### **Indications for Surgery**

Osgood-Schlatter's disease is a condition characterized by a stress injury to the apophysis (growth plate) of the tibial tubercle. The tibial tubercle is a bony prominence at the top of the tibia (lower leg bone) just below the knee where the large, powerful quadricep (thigh) muscles attach and pull to straighten the knee and allow us to stand, run, and jump. The apophysis (growth plate) of the tibial tubercle is an area of relative weakness in the bone structure and stress from the repetitive pull of the quadriceps muscle with vigorous exercise can cause injury and separation of the growth plate. In growing children, symptoms and pain from Osgood-Schlatter's disease, stress injury to the growth plate of the tibial tubercle, typically can be managed conservatively with ice, stretching, eccentric strengthening exercises, and temporary avoidance of aggravating activities. Often, as children mature and their growth plates close, symptoms from Osgood-Schlatter's disease resolve. However, as a result of chronic Osgood-Schlatter's disease, some skeletally mature individuals have residual free ossicles (fragmentation) of the tibial tubercle bone and continue to experience pain. For significant symptoms which fail conservative treatment, surgery is indicated and includes tibial tubercleplasty (removal of bony ossicles and reshaping of the prominent tibial tubercle) and debridement (removal) of degenerated patellar tendon tissue and repair of any separated/torn aspects of the patellar tendon.





X-ray (left) and MRI (right) imaging of Chronic Osgood Schlatter's disease in skeletally mature individual with separation and fragmentation of the tibial tubercle.

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#### **Contraindications to Surgery**

- Infection of the knee (current or previous; not an absolute contraindication)
- Inability or unwillingness to complete an appropriate postoperative rehabilitation program
- Severe knee or patellar arthritis

#### **Potential Surgical Risks and Complications**

- Infection
- Injury to nerves (numbness) of the knee, leg, and foot
- Rupture of the patellar tendon
- Knee stiffness (loss of knee motion) or muscle weakness
- Continued pain and progressive arthritis
- Weakness of the quadriceps muscles if proper rehabilitation is not performed
- Rare occurrence of 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)

#### **Hospitalization and Anesthesia**

- Outpatient surgery
- General and local anesthesia (See "Your Surgical Experience" packet)

### **General Surgical Technique**

Dr. Chudik makes a small open incision over the patellar tendon and tibial tubercle. The patellar tendon is split longitudinally along fibers to protect its connection. The damaged patellar tendon tissue, bony ossicles (fragments) and prominent tibial tubercle bone are identified and removed. Then, any tears or separation of the patellar tendon are identified and repaired. Following this procedure, the patient will participate in physical therapy to restore full knee strength and return to activity.

#### **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



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#### **Postoperative Course**

- Crutches for comfort and weight bearing as tolerated
- Keep the wound(s) clean and dry for the 10-14 days following surgery, then you may shower but not submerge the wounds for three weeks.
- Physical therapy should begin two to three days after surgery and continue for approximately three to four months depending on severity. It is crucial to follow through on and maintain a proper therapy schedule.
- If right lower extremity is involved, driving may not resume until after six weeks when strength and motion allows.

#### **Return to Activity**

Return to gentle, daily activities about four weeks after surgery

#### **Scheduling Surgery**

Call Dr. Chudik's surgery scheduler at 630-324-0402, or email contactus@chudikmd.com to:

- Schedule the date and location of surgery
- Schedule an appointment with Dr. Chudik's PA to complete pre-operative surgical education and other requirements
- Schedule a post-operative appointment with Dr. Chudik's team to remove sutures and review post-op instructions

**Notify My Office if Symptoms Worsen** 



