



THUNDER BASIN ORTHOPAEDICS
— AND SPORTS MEDICINE —

Fulkerson Tibial Tubercle Osteotomy

What is a Fulkerson TTO Procedure?

The tibial tubercle is a normal bony structure on the front part of the upper tibia (shin bone). It is a small bony prominence where the patellar tendon attaches. When the thigh muscle (quadriceps muscle) is contracted, the patellar tendon pulls on the tibial tubercle and allows you to straighten the leg. In some people, the tibial tubercle is shifted off to the side of the tibia instead of the central part of the tibia. A Fulkerson tibial tubercle osteotomy is a surgical procedure that is performed under minimally invasive techniques. A small incision is made on the front part of the knee and the tibial tubercle is cut and moved to the correct position and secured in place by two screws.

Common indications for Fulkerson TTO:

There are a few indications for a Fulkerson procedure. Some common indications are listed below:

- **Patellar Maltracking:** This condition is when the kneecap is tilted off to the side. This forces more weight across one part of the kneecap, which often causes pain in the front part of the knee.
- **Patellofemoral Osteoarthritis:** This condition usually develops over a longer period of time from long standing patellar maltracking disorder (kneecap tilted off to the side). The cartilage underneath the kneecap gradually wears down and causes pain, stiffness, and grinding in the knee.
- **Patellar Instability:** Some people have instability problems with the kneecap which can result in subluxation (partial dislocation) or dislocation of the kneecap. Depending on the patient's anatomy, a Fulkerson procedure may be indicated for instability of the kneecap.

Pre-Operative Care:

- Medical clearance: this will be determined by your surgeon depending on your age and medical history. You may need routine blood work, test, and/or an evaluation by your primary care provider depending on your age and medical history.
- Medications: stop taking all anti-inflammatory medications (NSAIDS) and OTC herbal supplements/vitamins 2 weeks prior to your surgery. These medications thin your blood and make it difficult for your surgeon to perform the surgery. All other medications will be reviewed by the surgical facility.

Post-Operative Care:

- Pain medication: you will typically be given a prescription anti-inflammatory medication for your baseline pain medication. You may also be given a stronger pain medication to take for breakthrough pain that the anti-inflammatory pain medication does not control.
 - Our goal at Thunder Basin Orthopaedics is to make you comfortable, but we do not expect you to be pain free.
- Dressing: leave bandage on for 72 hours after surgery, then may remove bandage and shower as normal. No soaking of the incision for 3 weeks after surgery. Leave steri-strips in place until they come off on their own.
- Ice: you may be given a cryocuff ice machine after surgery. Icing is very important to decrease swelling and pain after surgery. Leave ice on for 20 minutes at a time, and ice several times a day for the first week after surgery.
- Activity: typically your surgeon will place you in a brace after your surgery. The brace is usually locked in a position to keep the leg straight. You will be kept in this brace with the leg straight until your surgeon sees adequate healing on the X-ray. This is typically for 6 weeks after the surgery. You are able to be full weight bearing after your surgery, as long as you are in the brace (walking with a peg leg).
- Physical therapy: you will not go to physical therapy until you are out of the brace around 6 weeks after your surgery.

Please refer to our attached frequently asked questions list. If your question has not been answered, please call Thunder Basin Orthopaedics at (307) 682-6222 – Gillette or (307) 358-6200 – Douglas.

Please call us at the above number if you experience severe pain that is not relieved by your medicine or if you experience a temperature over 101 degrees F, redness/swelling in your thigh or calf.

