Knee Extensor Tendonitis

Tendonitis is inflammation of a tendon, usually where the tendon attaches to bone. In the knee, tendonitis can affect the quadriceps tendon that connects the quadriceps muscle to the upper portion of the kneecap (patella), or can affect the patellar tendon that connects the lower portion of the kneecap to the upper leg bone. The patellar tendon is actually a ligament, since it connects bone to bone. The patellar tendon (ligament) can also become inflamed where it attaches to the upper leg bone (tibia), a condition most common in adolescents called Jumpers Knee, or Osgood-Schlatter disease. With severe cases of tendonitis, the tendon can actually rupture (tear from bone). This condition is most often seen in older individuals due to degeneration (tendinosis).
Symptoms:

Pain is the hallmark of extensor tendonitis, and is located either just above the patella (quadriceps tendonitis), or just below the patella (patellar tendonitis). Sometimes there is an injury, but tendonitis is more common with overuse and under-conditioning. There is occasionally swelling and warmth over the inflamed tendon. The joint may become stiff, but range of motion is often reduced due to pain. Tenderness is present over the affected tendon.

Cause:

Extensor tendonitis is often caused by injury, particularly sports injuries, or overuse. Tendonitis can often be caused by inadequate stretching prior to exercise, or increasing an exercise program too rapidly. Tendonitis can also occur in non-athletes with excessive kneeling, squatting, or stairclimbing.

Diagnosis:

A careful history and physical examination will often make the diagnosis. Plain x-rays are often obtained and can show associated bony injuries abnormalities, such as bone spurs or calcifications. Ultrasound can be utilized in the office to evaluate the integrity of the extensor tendon. MRI may be needed to confirm the diagnosis.

Treatment:

Non-surgical treatment:
Most patients with extensor tendonitis are treated nonsurgically. For acute symptoms of recent onset, a brief period of RICE (rest, ice, compression, elevation), activity modification, and bracing is recommended. NSAIDS may help to relieve pain and inflammation. Physical therapy may be beneficial several days after acute symptoms, or with chronic tendonitis, to help restore normal mobility and strength to the knee. Sports are typically restricted until pain resolves, and there is near-normal strength and range of motion.
Injectables:
PRP injection may be beneficial with both acute and chronic tendonitis. It may help to speed healing of the injured tendon. Other biologicals, such as AmnioFix, may be injected to help stimulate a healing response. Cortisone injections can be helpful for pain management, but may adversely affect tendon healing. Repeat steroid injections into or around a tendon may cause tendon rupture.

Surgery:
Surgery is uncommonly indicated for extensor tendonitis. Chronic tendonitis with partial or complete tendon tearing may need surgical debridement (removal of chronically inflamed tendon with repair of the tendon back to bone).