ROBERT PETTIT, MD

Restoring Function. Maximizing Performance.

ORTHOPAEDIC SPORTS MEDICINE · BEACON ORTHOPAEDICS & SPORTS MEDICINE

CINCINNATI, OH · FORT THOMAS, KY

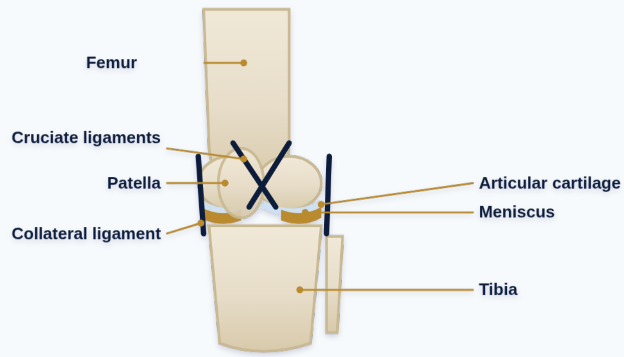
(513) 354-3700

FELLOWSHIP-TRAINED · BOARD CERTIFIED (ABOS) · MAKO ROBOTICS CERTIFIED · CINCINNATI REDS TEAM PHYSICIAN

KNEE CONDITION

Patellar & Quad Tendinopathy

Jumper's Knee — Patient Condition Guide



Knee anatomy — for education; your anatomy may differ

OVERVIEW

Tendinopathy of the patellar or quadriceps tendon — jumper's knee — is an overuse condition in which the tendon that straightens the knee becomes painful and degenerative from repetitive jumping, landing, and change-of-direction load. It is most common in basketball, volleyball, and court-sport athletes.

SYMPTOMS

- Well-localized pain at the bottom of the kneecap (patellar tendon) or just above it (quad tendon)
- Pain warming up that eases with activity, then aches afterward
- Pain with jumping, landing, decelerating, and deep squats
- Morning stiffness in the tendon

DIAGNOSIS

The exam localizes tenderness precisely to the tendon. Ultrasound or MRI can grade tendon changes in persistent cases and exclude a partial tear.

TREATMENT OPTIONS

The cornerstone is progressive tendon loading — not rest alone: isometric and then heavy, slow strengthening rebuilds the tendon's capacity while managing sport volume. Most athletes can keep playing at a modified level during rehab. For stubborn cases, options include shockwave therapy or ultrasound-guided procedures; surgery to debride the diseased tendon segment is a last resort and is effective when needed.

RECOVERY OUTLOOK

Tendons adapt slowly — meaningful improvement typically takes 6–12 weeks and full resilience 3–6 months. The long-term outlook for return to jumping sports is excellent with a completed loading program.

SCAN FOR THE LATEST VERSION ONLINE

robertpettitmd.com/handouts/jumpers-knee.pdf

This handout is for general patient education and does not replace personalized medical advice. Always follow the specific instructions given by Dr. Pettit and your care team.

ROBERT PETTIT, MD

Restoring Function. Maximizing Performance.

ORTHOPAEDIC SPORTS MEDICINE · BEACON ORTHOPAEDICS & SPORTS MEDICINE

CINCINNATI, OH · FORT THOMAS, KY

(513) 354-3700

HOME EXERCISE PROGRAM

Patellar & Quad Tendinopathy: Exercises & Strengthening

Tendons need load to heal. Start with isometric wall sits for pain relief, then progress to the eccentric decline squat — the most proven exercise for patellar tendinopathy.

Why eccentric strengthening? Tendons heal and get stronger when they are loaded slowly while lengthening — the “eccentric” (lowering) phase of an exercise. Take 3–4 seconds on every lowering movement. A mild ache (up to 3–4/10) during eccentric work is acceptable and even expected; sharp pain, or pain that worsens into the next day, means reduce the load. Tendon programs work over 6–12 weeks of consistency — stick with it.

Stop and call the office at (513) 354-3700 if any exercise causes sharp pain, swelling, numbness, or symptoms that worsen into the next day. This general program does not replace an individualized plan from Dr. Pettit or your physical therapist.

Wall Sit (Isometric)

3 × 30–45-second holds, daily

Back flat against the wall, slide down to a partial squat (well short of pain) and hold. Isometric holds are excellent for calming irritable tendons.

Eccentric Decline Squat **ECCENTRIC**

3 sets of 15 slow lowers, twice daily

Standing on a 25° decline board (or a firm wedge), squat down slowly over 3–4 seconds on the affected leg, then use both legs to return up. The gold-standard tendon-rebuilding exercise.

Quadriceps Stretch

3 × 30-second holds, daily

Standing with support, pull the heel toward the buttock until a stretch is felt in the front of the thigh. Keep the knees together.

Hamstring Stretch

3 × 30-second holds, daily

Seated with the leg straight, hinge forward from the hips until a stretch is felt behind the thigh. Keep the back long.

Straight Leg Raise

2 sets of 10, daily

Tighten the thigh, lock the knee straight, and lift the entire leg about 12 inches. Lower slowly with control.