Physical Therapy & Sports Rehab, Inc.

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Patellofemoral Syndrome

What You Need to Know

What Is Patellofemoral Syndrome?

Patellofemoral syndrome (PFS) — also called patellofemoral pain syndrome or "runner's knee" — is one of the most common knee problems seen in active people of all ages. It refers to pain arising from the joint between the kneecap (patella) and the thigh bone (femur) — called the patellofemoral joint. The pain is caused by abnormal tracking, excessive pressure, or irritation at this joint rather than by a structural tear or injury.

PFS is particularly common in runners, cyclists, hikers, and people who spend a lot of time on stairs. It accounts for up to 25% of all knee pain presentations seen in sports medicine and physical therapy clinics.

What Does It Feel Like?

- A dull, aching pain around or behind the kneecap
- Pain that worsens going down stairs (more than going up)
- Pain when squatting, lunging, or running
- Discomfort after prolonged sitting with bent knees — the classic "movie sign" or "theater sign"
- A grinding, clicking, or crunching sensation behind the kneecap
- Pain that comes on gradually and worsens with increased activity
- Occasional swelling around the kneecap

What Makes It Worse?

- Going downstairs or downhill — peak patellofemoral stress occurs here
- Squatting and deep knee bends
- Running, especially increasing mileage too quickly
- Sitting with knees bent for long periods
- Kneeling
- Cycling with the seat too low

What Causes It?

PFS develops when the kneecap does not track smoothly through its groove, creating uneven pressure on the joint surface. Underlying causes typically include:

- Weak quadriceps — especially the inner quad (VMO) that guides the kneecap medially
- Weak hip abductors and external rotators — causing the knee to collapse inward
- Tight IT band, lateral retinaculum, or hip flexors pulling the kneecap outward
- Overpronation of the foot — rotating the leg inward and stressing the kneecap
- Sudden increase in training load without adequate preparation
- Running or exercising on hard surfaces
- High-heeled footwear over time

When Should I Be Concerned?

- Significant swelling or locking of the knee
- Pain following a specific traumatic event (fall, collision, dislocation)
- Pain at rest or at night that does not change with position
- Symptoms that are worsening despite activity modification

The Good News

Patellofemoral syndrome responds extremely well to physical therapy. By addressing the muscle imbalances and movement patterns driving the problem — particularly hip and quad strengthening, flexibility work, and gait or technique modifications — the vast majority of patients achieve full resolution of symptoms. PFS rarely requires surgery.

With targeted physical therapy, most patients experience full or near-full resolution of symptoms within **6 to 8 weeks**.