GARNET ORTHOPEDIC SOLUTIONS

PATIENT EDUCATION GUIDE

Understanding Patellofemoral Pain and Getting Back to Comfortable Movement

A practical guide to why pain builds up behind the kneecap, what puts you at risk, and how a personalized plan can get you moving again without losing the progress you've already made.

Jeff Lewis, C. Ped (C)
Canadian Certified Pedorthist, Garnet Orthopedic Solutions

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SECTION 01

What Is Patellofemoral Pain Syndrome?

Patellofemoral pain syndrome, often shortened to PFPS, describes pain in the front of the knee that usually originates from behind the kneecap itself. It's common in people who are active, but it shows up in the non-athletic population too. Like most overuse injuries, it can come on suddenly or build gradually, depending on the mix of factors behind it.

PFPS is typically caused by overuse, misalignment of the kneecap, or some combination of the two. Vigorous activity such as running, squatting, or lifting, repetitive stress from prolonged walking, kneeling, or climbing stairs, or simply a recent change in your activity level can all bring symptoms on. In a healthy knee, the kneecap glides smoothly within a groove on the thigh bone as the knee bends and straightens. Misalignment happens when the kneecap stops tracking properly along that groove, often because of excess pronation, or arch collapse, which pulls the kneecap out of its normal path and irritates the tissue around it.

SECTION 02

Recognizing the Symptoms

The most common symptom of PFPS is a dull, aching pain in the front of the knee that builds gradually and worsens with activity. Beyond that, you may also notice:

- Pain directly above the kneecap
- Pain after sitting for prolonged periods of time
- Pain while climbing stairs or rising from a seated position
- A feeling of instability in the knee
- Crepitus, a cracking or popping noise in the knee

Pain after sitting for long stretches, sometimes called "theatre sign," is one of the more telling symptoms of PFPS.

SECTION 03

Why the Kneecap Loses Its Track

Underneath the pain, PFPS is fundamentally a tracking problem. The kneecap is meant to glide within a groove on the femur, and small forces from above and below the knee keep it centered as you move. When those forces fall out of balance, whether from tightness, weakness, or a foot that's rolling further inward than it should, the kneecap starts to drift off its ideal path with every step, squat, or stair climb, irritating the cartilage and soft tissue behind it.

Why this matters for treatment

Because the root cause is mechanical, effective treatment tends to look above and below the knee, not just at the knee itself. Addressing hip and quadriceps strength, calf flexibility, and foot mechanics together is usually what actually resolves the mal-tracking, rather than just managing pain in isolation.

SECTION 04

Risk Factors Worth Knowing

PFPS can affect a wide variety of people, but a handful of factors are consistently linked to a higher risk of developing it:

- Gender differences: females are more prone to developing PFPS than males, according to several studies, a pattern many clinicians attribute to differences in the Q-angle between the sexes
- IT band tightness: tension in the IT band can exert forces on the knee and kneecap that contribute to mal-tracking and increased pain
- Quadriceps tightness or weakness: the quadriceps stabilize the knee and allow it to function smoothly; when they're weak or tight, the kneecap has more room to move off track
- Calf tightness: tightness in the lower leg is also linked to PFPS incidence
- Training factors: the volume, intensity, environment, and style of your activity can all raise your risk

If any of these factors sound like they apply to you, a proper assessment can confirm it and point toward the right fix.

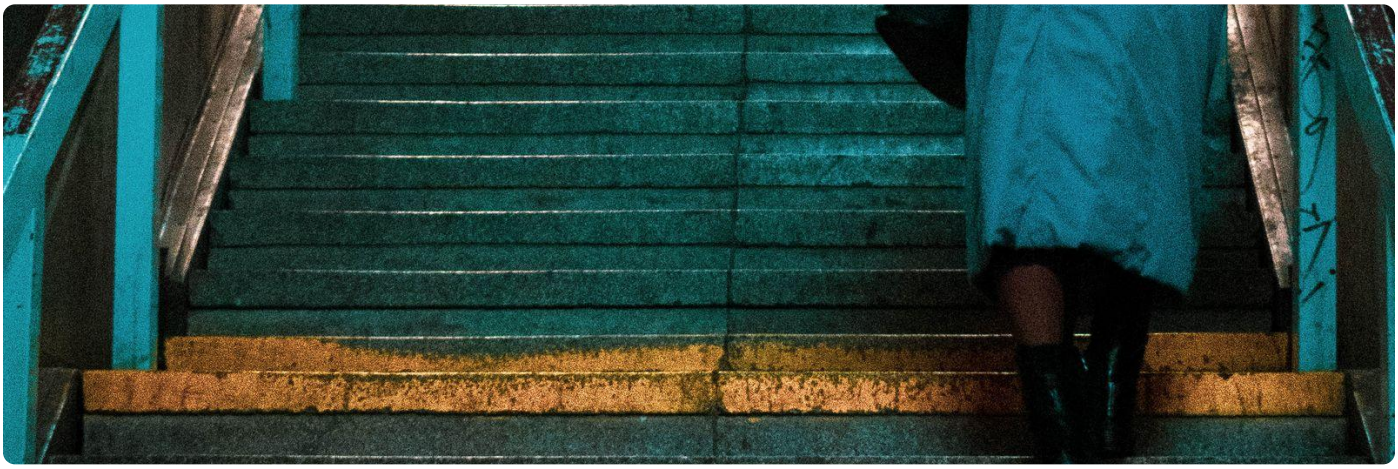
Book an Assessment garnetsolutions.ca

SECTION 05

What You Can Do Today

A few adjustments can start easing symptoms before you've even had a formal assessment:

- Notice your sitting habits. If prolonged sitting reliably brings on pain, breaking it up with short walks or knee extensions can help
- Ease off stairs and deep squats temporarily. Reducing the motions that reproduce your pain gives the tissue behind the kneecap a chance to settle
- Look at your footwear. Shoes that let your foot roll excessively inward can worsen kneecap tracking; a pedorthist can tell you whether that's a factor for you



Stairs are one of the most common places PFPS symptoms show up, since they load the kneecap at a sharper angle than walking on flat ground.

SECTION 06

Staying Active With Pain

Just as there are many causes of PFPS, there are also many ways to manage it, and the right approach depends largely on your specific symptoms and when they show up. Primary treatments have traditionally included local pain management through physiotherapy, non-steroidal anti-inflammatory drugs, rest, and cold therapy.

Staying active while you manage symptoms is still worthwhile for your overall health, but choose activities that don't reproduce your pain. Cycling on a low resistance, swimming, or upper-body focused strength work can often be maintained even while stairs and deep squats are temporarily off the table.

> Avoid knee pain by addressing your alignment.

SECTION 07

Your Treatment Options

Beyond first-line pain management, further interventions can help maintain your activity level while you recover and prevent further injury; your kinesiologist or physiotherapist can advise which devices or exercises are the right fit for your situation.

Your Garnet pedorthist will create an individualized treatment plan suited to your specific needs, goals, and symptoms, working to address both your current concerns and the prevention of future problems. At your initial appointment, we'll complete a thorough foot examination, and a follow-up exam ensures your plan is meeting your goals so it can be reassessed as needed. During these appointments, we typically:

- Assess joint and muscle function, including range of motion and gait
- Assess your footwear for both fit and function
- Identify modifiable risk factors and recommend changes
- Identify areas of risk using specialized tools such as pressure mapping
- Discuss a treatment plan, which may include a footwear change, activity modification, custom foot orthoses, or a referral for complementary treatment such as physiotherapy

SECTION 08

Custom Orthotics vs. Off-the-Shelf

PFPS can stem from a wide variety of biomechanical, environmental, or other contributing factors, which makes a one-size-fits-all fix unlikely to hold up. Where excess pronation is part of what's pulling your kneecap out of its groove, correcting that motion at the foot can take meaningful pressure off the knee above it.

	OFF-THE-SHELF ORTHOTICS	CUSTOM ORTHOTICS
Cost	Cheaper upfront	**Often partly covered by extended health benefits**
Availability	Instant, off a shelf	**Made for you, ready in a matter of days**
Fit	Generic size range	**Shaped to your exact foot and gait**
What it does	Offers general arch support	**Corrects the specific motion pulling the kneecap off track**
Lifespan	Wears out, replace often	**Built to last, and adjustable as you recover**

Your knees carry every step, squat, and stair. They deserve support built for how you actually move, not a shelf.

Curious whether custom orthotics could ease the load on your knees?

See Custom Orthotics

SECTION 09

What to Expect at Garnet

In addition to your individual treatment plan, your Garnet pedorthist provides educational resources to help you maintain your knee and foot health going forward. Where gait plays a meaningful role in how your kneecap is tracking, a full gait analysis helps pinpoint exactly where the imbalance is coming from.

Want to understand what a gait analysis actually involves before you book?

Learn About Gait Analysis Book Now

SECTION 10

Prevention and Long-Term Movement Health

Because PFPS often comes down to forces around the knee falling out of balance, prevention focuses on keeping those forces in check:

- Build and maintain quadriceps and hip strength rather than letting it lapse between activity blocks
- Keep the IT band and calves loose through regular stretching
- Increase training volume and intensity gradually rather than in sudden jumps
- Choose footwear that supports your specific foot mechanics, especially if you overpronate
- Use custom foot orthoses where your assessment shows they would help

> Avoid knee pain by addressing your alignment, today.

Ready to talk to a pedorthist?

Book a consultation and get a treatment plan built around your specific mechanics, gait, and goals.

Book an Appointment

Garnet Orthopedic Solutions provides pedorthic assessment, custom orthotics, and footwear guidance built around each patient's specific anatomy and goals, rather than a one-size-fits-all approach. Our clinic combines hands-on biomechanical assessment with practical, evidence-informed treatment, so patients leave with a plan they understand and can actually follow.

Jeff Lewis, C. Ped (C)
Canadian Certified Pedorthist

Jeff leads patient assessment and custom orthotic care at Garnet Orthopedic Solutions, working with patients to identify the root cause of their foot and lower limb pain and to build a treatment plan suited to their specific needs, goals, and symptoms.

Appendix: Image Sources

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#	DESCRIPTION	PHOTOGRAPHER	SOURCE
1	Cover — woman exercising	Andrea Piacquadio	pexels.com/photo/866027
2	Sec. 2 — woman sitting with legs up at a desk, working	www.kaboompics.com	pexels.com/photo/5239958
3	Sec. 5 — person climbing a dimly lit staircase	shushi	pexels.com/photo/14314678