

# Why do I have patellofemoral pain syndrome?

## Physiotherapy in Canmore for Knee

**Q:** I'm the only one in a family of eight children who has a knee problem called patellofemoral pain syndrome. We are all involved in sports of some kind. What am I doing wrong that I have this problem but no one else in the family does?

**A:** Patellofemoral Syndrome (PFS) is a condition that causes pain in and around the patella (knee cap). In the normal, healthy adult, the patella moves smoothly up and down over a groove on the femur (thigh bone) as the knee bends and straightens. PFS can develop when the patella is not moving or tracking properly over the femur. This is a common knee problem in teens and young adults (especially runners and athletes) but anyone can be affected.

Patellofemoral syndrome (PFPS) is a complex condition that may not have one singular cause. It is likely that there is more than one cause and possibly more than one factor present at a time. There are some anatomical considerations. Studies have shown that there is an increased risk of developing PFPS when abnormal patellar tracking and abnormal muscle activation are present.

Several important angles (Q-angle, lateral patellofemoral angle, lateral patellar displacement) present in the knee must be considered. These three angles help describe the tilt of the patella, position of the patella, and amount of lateral displacement (placement off to the outside of the patellar track). You may have one or more of these anatomic variations present and contributing to your symptoms. Sometimes specific exercises prescribed by a physiotherapist or the use of taping around the knee cap help realign the knee and reduce or even eliminate pain.

A new study from the Mayo Clinic Sports Medicine Center in Rochester, Minnesota adds a short list of specific patient characteristics that suggest taping can help. Those three factors include: lower body mass index (BMI), smaller lateral patellofemoral angle, and larger Q-angle.

Don't spend any time wondering what you are doing wrong. Get an evaluation from an orthopedic surgeon or sports medicine physician or physiotherapist. Once any risk factors are identified, you can begin a program to modify posture and alignment while improving knee strength and motion. This should help you take care of this problem as much as is possible and maintain pain free participation in all sports of your choice.

Reference: Tsung-Yu Lan, MD, et al. Immediate Effect and Predictors of Effectiveness of Taping for Patellofemoral Pain Syndrome. In The American Journal of Sports Medicine. August 2010. Vol.38. No. 8. Pp. 1626-1630.