

# The Rehab Report

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**Kanata Orthopaedic**  
Physiotherapy Clinic

## Focus on the Knee

In this edition of The Rehab Report, we focus on two common knee conditions, including Patellofemoral Pain Syndrome (PFPS) and Anterior Cruciate Ligament (ACL) repair.

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## Recent Research

*Nienke E. et al. Risk Factors for Patellofemoral Pain Syndrome: A Systematic Review. JOSPT: February 2012 42(2); 81*

This 2012 systematic review sought to outline the potential risk factors for developing patellofemoral pain syndrome (PFPS).

PFPS, sometimes also referred to as Runner's Knee, is generally considered to be pain in and around the anterior knee, possibly stemming from the patella, and not related to damage of the major ligaments of the knee.

### Method

The authors did a meta-analysis of relevant articles based on their parameters, and data was pooled to examine potential risk factors.

### Findings

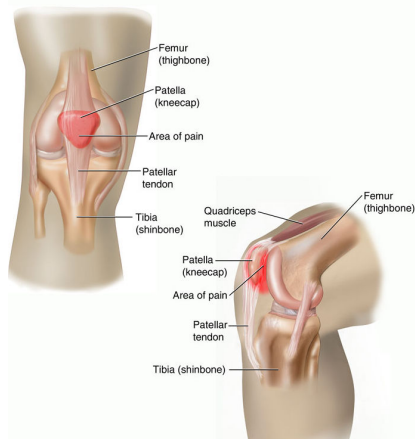
Based on the findings of several studies included in this systematic review, the authors concluded that lower knee extension strength (peak torque) is a significant risk factor for future development of PFPS.

### Implications

The authors suggest that the findings have practical use for screening and identifying athletes and soldiers at risk of developing PFPS, and starting a pro-active strengthening program for these individuals.

The findings also support the use of quadriceps strengthening techniques in physiotherapy practice when treating individuals who have already developed PFPS.

**Patellofemoral Pain Syndrome (Runner's Knee)**



## The Anterior Cruciate Ligament (ACL)

The Anterior Cruciate Ligament (ACL) lies deep within the knee joint, connecting the thigh bone (femur) to the shin bone (tibia). The function of the ACL is to prevent excessive forward movement of the shin in relation to the thigh and to prevent excessive rotation of the knee joint. The ACL is therefore very important in maintaining knee joint stability.

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*If you suspect that you may have an injury or instability of the knee, it is important to get evaluated by your physician, specialist or physiotherapist*

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An ACL tear is a fairly common knee injury in sports that usually involves a quick change of direction with twisting. This can happen from jumping and twisting, over-extending the knee, or from direct contact like a tackle.

Common signs of ACL injury can include:

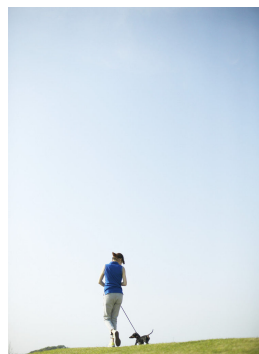
- Snapping, clicking inside the knee
- Knee pain
- Knee instability or buckling
- Swelling of the knee

Treatment of an ACL injury may vary depending on the amount of damage to the ligament and the functional impairment it creates. If there is a partial tear of some fibres of the ligament, and the individual maintains reasonable stability of the knee, then a conservative approach including physiotherapy and bracing is usually the treatment of choice. However, if an individual is involved in a higher level of sport or performance, even mild instability may be unacceptable. In these circumstances, the decision to repair the tear may be made. Following ACL surgery, physiotherapy rehabilitation is very important.



If you suspect that you may have an injury or instability of the knee, it is important to get evaluated by your physician, specialist or physiotherapist.

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*Be sure to stay active this spring!*



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