



Musculoskeletal

Are control and strength altered in patellofemoral pain?

Is there a link between poor lower limb strength/ control and the development of patellofemoral pain syndrome?

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This study compared ground reaction forces, lower limb kinematics, muscle activity and lower limb strength of runners with and without PFPS (n=41). After initial analysis the authors reported no between group differences. However, after sub-classification of subjects, female runners with PFPS and a rear foot strike showed significantly greater hip ADDuction at toe off and lower gluteus medius activation.

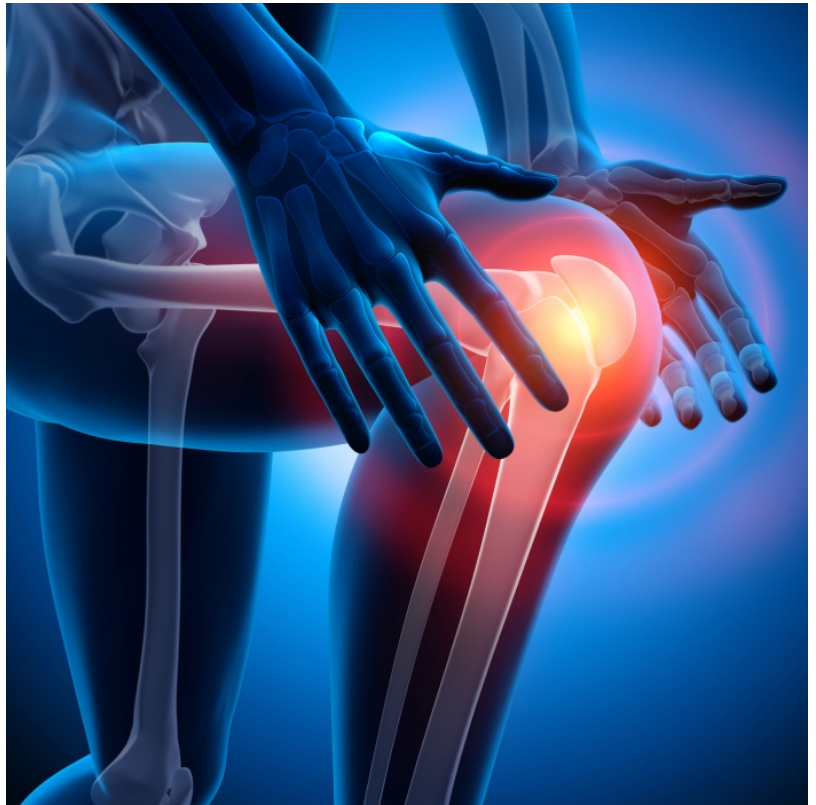
Overuse or loading injuries are very common in recreational runners, with a reported annual prevalence of 70%. PFPS is thought to account for up to 20% of these injuries, with repetitive forces of up to 4.5 x body weight being transferred through the knee joint. Several factors are thought to predispose a runner to the development of PFPS such as altered loading patterns, muscle weakness and aberrant muscle patterning.

This is the first study to look at muscle strength, lower limb kinematics, muscle activation and ground reaction forces in runners with PFPS.

The results showed significantly increased hip ADDuction (toe off) and reduced gluteus medius activation (heel strike) in female runners with PFPS and rear foot strike. There was no correlation between open chain isometric hip strength and PFPS.

This study suggests that female gender and rear foot strike running can be linked to PFPS.

The authors found no link between reduced lower limb strength and PFPS.



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