



*Musculoskeletal*

## **Rehabilitation of patellar tendinopathy in athletes**

**...an approach focusing on hip muscle strengthening and altering jump landing strategy**

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Patellar tendinopathy (PT) is a common injury in sports. There are various factors that can cause PT. Eccentric training is used often as treatment modality during rehabilitation. However, growing evidence indicates that this may not always be the best option, especially if the athlete is still participating in sports activities.

It has been shown in previous studies that the jump-landing mechanics are different in patients with patellofemoral tendon complaints in comparison to controls. While the controls perform a hip flexion while landing, the patients with the patellar tendon abnormalities performed hip extension. Focusing on the landing part of the jump can be an important part of rehabilitation, especially if the athlete participates in sports including cutting and jumping, such as volleyball.

Another issue that is related with PT, is weakness of the hip extensors. If weakness of the hip extensors is indeed present, literature has shown that it is likely that there is an increase on the knee extensors to dissipate the ground reaction forces during jump landings.

The current case report describes hip muscle strengthening and altering jump landing strategy as an approach to alter pain and function of a volleyball athlete with PT.

The patient experienced immediate pain relief after altering the jump-landing strategy. After 8 weeks, the patient had fully recovered. It is important to realize that this study only focused on 1 patient, during intake and assessment it is important to investigate what the individual factors are for PT. Moreover, it should be taken into account that the lower extremity and the trunk function as a kinetic chain and that PT almost always occurs in combination with dysfunctions of other more or less adjacent structures.



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