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GOAT NOTES

Combine Academy Sports Medicine Newsletter



PATELLA TENDINITIS NEWSLETTER

Also Known as “Jumper’s Knee”, patellar tendinopathy can be a debilitating injury which can affect recreational as well as professional athletes. It can interfere with their performance and often can linger throughout their career. Diagnosing this injury at its earliest stage can help future treatments, which will allow for a better outcome. Histopathological and biochemical evidence has indicated that the underlying pathology of tendinopathy is not an inflammatory tendinitis but a degenerative tendinosis. Treatments should lean more towards eccentric strengthening, then anti-inflammatory strategies. Below are key approaches for optimal outcomes when it comes to Patellar Tendinopathy.

Pathology

The patellar tendon extends distally from the infrapatellar pole to the tibial tubercle. The formation of the patella appears to separate the tendon into two regions, the quadriceps and patellar tendons although they are, in fact, a continuous, anatomic tendon entity. The patella tendon is 25-40mm wide, 4-6 cm long and 5-7mm thick in an adult. Patella Tendinopathy is commonly an overuse injury and rarely it’s caused by a traumatic event. There’s a couple of intrinsic factors that can contribute to Patella Tendinitis these are muscle strength, bone length, bone density, age, sex and range of motion. Extrinsic factors also can ignite this injury, these factors are training volume, environmental conditions, sport specific to name a few.

Treatment

Initially, decreasing the amount of load to the patella will minimize the progression of the injury. Typically, working on quadriceps and hamstring flexibility will decrease patellar tendon pain. Properly stretching your quadriceps and hamstring before workouts and icing after workouts is important to reduce pain and inflammation. Stretching should be at least 10-15 minutes in length

and Icing should be at least 15-20 minutes long for ultimate results. The key treatment for patellar tendinopathy is eccentric quadriceps exercises. Below I named a few exercises that are great to strengthening our lower body and will help diminish patella pain.

Eccentric Drop Squats

- * Stand with feet a little wider than hip width, toes facing front
- * Drive your hips back—bending at the knees and ankles and pressing your knees slightly open
- * You want to slowly bend your knees and strive to eventually reach parallel, meaning knees are bent to a 90-degree angle.
- * Lastly, press into your heels and straighten legs to return to a standing upright position. This motion should be done as slow as possible.



***Eccentric Drop Squat**

4 sets X 15 reps

Straight Leg Raise

- * Lie on your back with your hips square and your legs laid out comfortably on the floor
- * Bend the knee of your non-injured leg at a 90-degree angle, planting the foot flatly on the floor
- * Stabilize the muscles on your straight leg by contracting your quadriceps
- * Inhaling slowly, lift the straight leg six inches off the ground (HOLD for 3-5 seconds)
- * Exhaling slowly, lower the leg to the floor with control



***Straight Leg Raise**

4 sets X 15 reps

References:

- Castle, J. (2017). Game Day Nutrition Tips for Young Athletes. [online] Eatright.org. Available at: <https://www.eatright.org/fitness/sports-and-performance/tips-for-athletes/gameday-nutrition-tips-for-young-athletes>
<https://www.choosemyplate.gov/>

Director of Athletic Training



Andres earned his Bachelor's Degree from Nova Southeastern University and majored in Athletic Training. He is a member of the NATA and previously held a licensure as a Paramedic Firefighter. Andres is the father of two daughters, and husband to Mrs. Gutierrez, a pediatric ICU nurse. Mr. Gutierrez also has an immense amount of rehabilitation and physiotherapy experience, utilizing some of the most cutting edge science and athletic training practices with several NBA, NFL, MLS, and MLB professional clients.



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