



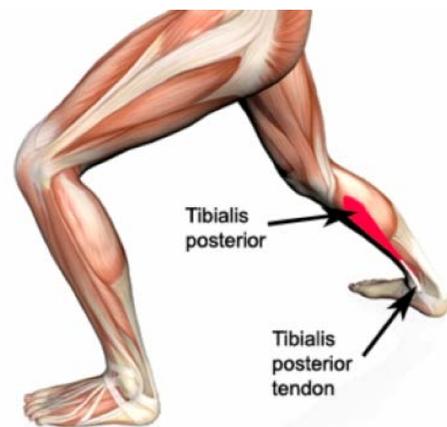
Chain Reaction: Functional Strengthening for the Treatment of Posterior Tibialis Tendinopathy in an Adolescent Athlete

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BACKGROUND & PURPOSE

Posterior tibialis tendinopathy (PTT) is a known musculoskeletal condition that causes pain in the medial foot and ankle and is often associated with gait abnormalities and functional impairments.¹⁻³

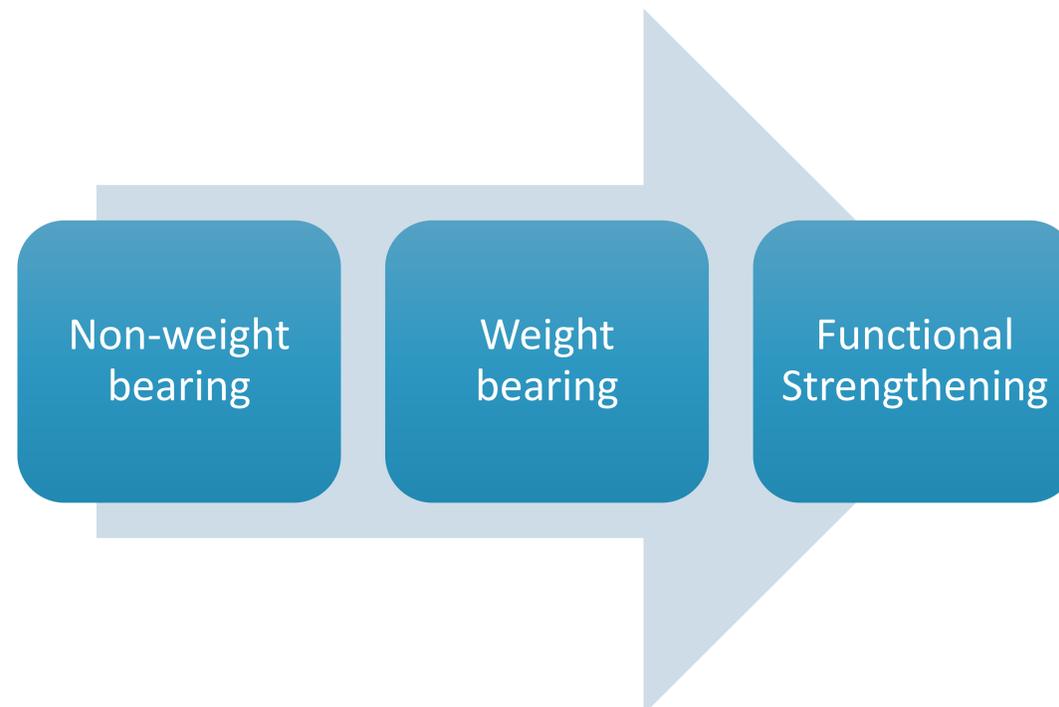
The purpose of this case report was to describe the successful addition of lower extremity kinetic chain functional strengthening to the standard of care for chronic PPT treatment.



CASE DESCRIPTION

- 13-year-old female with chronic PTT
- 2 year history of symptoms
- Tennis and volleyball player
- Reports of significant pain with all weight-bearing activities
- Unable to participate in sports & age-appropriate activities
- Examination findings:
 - Gait deviations
 - Decreased ankle AROM/PROM with pain
 - Decreased lower extremity strength & endurance
 - Impaired balance

METHODS



Interventions

Non-weight bearing	Weight bearing	Functional Strengthening
Pain management	DL calf raises with tennis ball	Balance with ball toss & hitting
Shuttle Leg Press TNT® machine strengthening	DL & SL balance with stable & unstable surfaces	Agility ladder drills
Gentle, pain-free ROM	Core & gluteus medius muscle focus	Advanced core & gluteus medius exercises

RESULTS

	Pre	Post
LEFS*	47/80	64/80
Pain	5-7/10	0-2/10

MCID for LEFS in adults (pediatric unavailable) = 9 points⁴
* indicates MCID met

CLINICAL RELEVANCE

The core acts as the center of rotation to transmit forces from the legs to the arms during the tennis swing.⁵ The back, trunk, and hips stabilize the entire body, thus, they should be strong enough to create proximal stability for distal mobility.

By providing the proper support to the foot and strengthening the hip and core musculature, the patient improved in strength, range of motion, and function, as well as, decreased her pain.

REFERENCES

For references, please scan:



ACKNOWLEDGEMENTS

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