

Title: Plantar Fasciopathy- Anatomy, Treatment, & Rehabilitation

- Anatomy
 - Plantar fascia
 - Fibrous band over the plantar surface of the foot
 - Helps support the arch of the and aid with propulsion
 - Connections with achilles
 - Connections via the calcaneus periosteum
 - This demonstrates the close relationship between the achilles/triceps surae and the plantar fascia
 - Evidence has shown achilles tendonopathy patients also present with thickening of the plantar fascia
 - Intrinsic foot muscles
 - Provide dynamic support for the arch
 - Shares a very close relationship with the plantar fascia
 - There are fascial connections between some of the intrinsic foot muscles and the plantar fascia
 - These areas are loaded with pacini and ruffin corpuscles
 - Displaying a prominent proprioceptive role
- Risk factors for the development of plantar fascia pain
 - Many risk factors have examined in determining who is at risk for developing plantar fascia pain
 - BMI, Body Mass, training, etc.
 - Some with mixed findings because of different methodologies is ROM characteristics
 - Limited DF has shown conflicting findings
 - But when examined through the scope of other compensations for limited DF it may support limited motion as a risk
 - Increased pronation or Increased rearfoot EV
 - Increased PF ROM was shown to be a risk factor in a meta-analysis
 - Possibility of strength being involved
 - Lower calf or arch strength
- Treatment options
 - Literature has shown really good success with stretching protocols for the calf and plantar fascia
 - Lends support to limited ROM as a risk
 - This includes other posterior chain structures (like the hamstrings)
 - Manual therapy when added to strengthening and/or stretching has shown better results than each in isolation
 - Similar to clinical practice
 - Again highlights the risk of limited motion
 - Taping



- Low dye taping techniques have been supported to decrease pain in patients with plantar fascia pain
 - Literature that has examined this taping did use it with other treatments
 - Great for short term success
- Now How to address other deficiencies
 - Patients with plantar fascia pain have shown decreased quad strength and slower hamstring reaction time
 - Patients with plantar fascia pain have shown weakness in the triceps surae and the intrinsic foot musculature
 - Strengthening and motor control exercises have shown to improve pain in function in plantar fascia pain
 - Literature showed not superior to just stretching
 - Let's look deeper
 - Doesn't account for the long term prevention of re-injury
 - Also addresses other deficiencies that present with injury
 - Also strengthening exercises have been shown to normalize deficient gait due to injury

