Title: The relationship between lateral ankle sprain and subsequent ankle tendinitis in ballet dancers

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Background: The lateral ligaments of the ankle are the most frequently injured structures in the body. Although most ankle sprains do not result in long-term disability, a significant number do not completely resolve, leading to residual symptoms. The most commonly reported symptoms are instability, re-injury, and tendinitis. Dancers are subject to the same types of injuries as other athletes, including lateral ankle sprains and their sequelae. Furthermore, dancers perform movements and postures such as "en pointe", which place the ankle in extreme plantarflexion - a precarious position requiring stabilization by surrounding muscles, particularly the peroneal muscles.

Purpose: The purpose of this analysis was to review relevant literature, characterize lateral ankle sprains and sequelae, discuss the potential relationship between lateral ankle sprain and ankle tendinitis in ballet dancers, and make recommendations regarding future research.

Approach/Methods: Informal interviews were conducted with physical therapists who specialize in treating ballet dancers, providing a clinical context. Several literature electronic databases were searched, then citations were identified from the retrieved papers. Finally, relevant reference texts were consulted.

Argument/Findings: Nearly all studies of ankle sprains report that lateral sprains lead to chronic ankle instability. EMG studies exploring ankle stability have demonstrated that the peroneal muscles play a crucial role in ankle stabilization and are the first to contract during inversion stress. Ballet dancers frequently exhibit peroneal overuse and tendinitis. Interestingly, studies have not linked this ubiquitous tendinitis to a history of ankle sprains.

Conclusion: A growing body of literature confirms myriad likely connections between lateral ankle sprains, residual instability, peroneal muscle activity, and tendinitis in ballet dancers. Future studies should investigate tendinitis risk factors, the potential direct link between lateral ankle sprain history and ankle tendinitis, and rehabilitation protocols for dancers. This knowledge may enable physical therapists to better manage the rehabilitation of injured ballet dancers.