



Early Physical Therapy Management for Lateral Ankle Sprains Improves Outcomes

There is good evidence that a combined approach of early mobilization, manual therapy, and neuromuscular re-education is effective in restoring ROM and expediting return to full activity and work. It is well documented that early mobilization post acute ankle sprain significantly improves range of motion, and decreases pain and swelling sooner than immobilization.^{4, 5, 6} These results were supported by a series of articles examined in a systematic review of the literature by van Os and colleagues.¹³ It was found that patients who received conventional early mobilization with Physical Therapy returned to work quicker than patients who only received early mobilization. The support for using manual therapy and neuromuscular training to improve results is found in two recent systematic reviews by Bleakley and van der Wees.^{2, 11} They reported that manual therapy can significantly improve short-term symptoms and neuromuscular reeducation training does decrease the chance of re-injury. Specifically, Green found that the addition of joint mobilization lead to full restoration of ROM in fewer sessions than patients who did not receive manual therapy.⁸ Several others studies have demonstrated the effect of thrust manipulation of the sub-talar joint in reduction of pain, swelling, increase in ROM, and return to function for patients with recent ankle sprains.^{7, 9, 10, 14, 15}

Lateral ankle sprains are common injuries that have been reported to affect 23,000 individuals in the United States every day.¹ In a recent article by Aiken looking at the normal recovery of inversion ankle sprains over a one month period revealed that at 30 day follow-up patients reported improved but not full function as measured by the Foot and Ankle Outcome Score (FAOS) and persistent impairments in range of motion and plantar flexor strength.¹ Additional literature describes persistent deficits in range of motion, joint mobility, and proprioception.³ A systematic review by van Rijn published in *The American Journal of Medicine* reported at one year follow-up a high percentage of patients still experienced pain and subjective instability.¹² In addition, re-injury rates of up to 80% have been reported.¹⁵ Impairments in ankle range of motion and joint mobility can additionally predispose patients to other lower extremity injuries including plantar fasciitis, Achilles tendinopathy, fracture, chronic ankle instability, and patellar femoral pain syndrome.

Early referral to Physical Therapy post acute ankle sprain has been shown to improve outcomes, accelerate return to full work, and prevent re-injury in a limited number of sessions.

Physical Therapy the first best choice for musculoskeletal conditions

References:

- Aiken AB, Pelland L, Brison R, et al. Short-term natural recovery of ankle sprains following discharge from emergency departments. *J Orthop Sport Phys Ther.* 2008; 38(9): 556-571.
- Bleakley CM, McDonough SM, MacAuley DC. Some conservative strategies are effective when added to controlled mobilization with external support after acute ankle sprain: a systematic review. *Australian Journal of Physiotherapy.* 2008; 54: 7-20.
- Denegar CR, Hertel J, Fonseca J. The effect of lateral ankle sprain on dorsiflexion range of motion, posterior talar glide, and joint laxity. *J Orthop Sport Phys Ther.* 2002; 32: 166-173.
- Detorri JR, Pearson BD, Basamania CJ, Lednar WM. Early ankle mobilization, Part I: the immediate effect on acute, lateral ankle sprains (a randomized clinical trial). *Mil Med.* 1994; 159(1): 15-20.
- Dettori JR, Basmania CJ. Early ankle mobilization, Part II: A one-year follow-up of acute, lateral ankle sprains (a randomized clinical trial). *Mil Med.* 1994; 159(1): 20-4.
- Eiff MP, Smith AT, Smith GE. Early mobilization versus immobilization in the treatment of lateral ankle sprains. *Am J Sports Med.* 1994; 22(1): 83-8.
- Eisenhart AW, Gaeta TJ, Yens DP. Osteopathic manipulative treatment in the emergency department for patients with acute ankle injuries. *J Am Osteopath Assoc.* 2003; 103(9): 417-21.
- Green T, Refshauge K, Crosbie, et al. A randomized controlled trial of passive accessory joint mobilization on acute ankle inversion sprains. *Physical Therapy.* 2001; 81: 984-994.
- Lopez-Rodriguez S, Fernandez de-las Penas C, Alburquerque-Sendin F, et al. Immediate effects of manipulation of the Talocrural joint on stabilometry and baropodometry in patients with ankle sprain. *J Manipulative Physiol Ther.* 2007; 30: 186-192.
- Pellow JE, Brantingham JW. The efficacy of adjusting the ankle in the treatment of subacute and chronic grade I and grade II ankle inversion sprains. *J Manipulative Physiol Ther.* 2001; 24(1): 17-24.
- van der Wees PJ, Lenssen AF, Hendriks EJM, et al. Effectiveness of exercise therapy and manual mobilization in acute ankle sprain and functional instability: A systematic review. *Australian Journal of Physiotherapy.* 2006; 52: 27-37.
- van Rijn RM, van Os AG, Bernsen RM, et al. What is the clinical course of acute ankle sprains? A systematic literature review. *Am J Med.* 2008; 121(4): 324-331.
- van Os AG, Bierma-Zeinstra SMA, Verhagen AP, et al. Comparison of conventional treatment and supervised rehabilitation for treatment of acute lateral ankle sprains: A systematic review of the literature. *J Orthop Sport Phys Ther.* 2005; 35: 95-105.
- Whitman JM, Childs JD, Walker V. The use of manipulation in a patient with an ankle sprain injury not responding to conventional management: A case report. *Man Ther.* 2005; 10: 224-231.
- Whitman JM, Cleland JA, Mintken P, et al. Predicting short-term response to thrust and non-thrust manipulation and exercise in patients post inversion ankle sprain. *J Orthop Sport Phys Ther.* In Press.