

# ORTHOSPORTS

QUESTION FOR PHYSIOTHERAPISTS



**QUESTION |** RECENTLY I HAVE NOTICED AN INCREASING TREND FROM GPs REQUESTING CAM BOOTS FOR ANKLE SPRAINS, PARTICULARLY IF THERE IS EVIDENCE OF AN ATFL TEAR (USUALLY ON ULTRASOUND).

THEY ARE ALSO SUGGESTING IMMOBILISATION FOR 6- 8 WEEKS AND NOT RECOMMENDING PHYSIO TREATMENT UNTIL AFTER THE BOOT IS REMOVED.

THIS CONTRADICTS ALL THAT I HAVE PREVIOUSLY LEARNED REGARDING EARLY MOBILISATION AND TREATMENT. HAS THERE BEEN A GENERAL CHANGE IN THINKING ABOUT THE EARLY TREATMENT OF ACUTE ANKLE SPRAINS. IF SO WHAT ARE YOUR THOUGHTS?

**ANSWER |** It is interesting to read this version of treatment for the notorious ATFL tear, and relieving to note that GPs are seeking a non-operative alternative.

In my experience, I get the urgent referral in my rooms for the patient that has a “complete rupture of the ATFL ligament” on ultrasound. The GP must get the patient in right away for surgical repair! I agree with you that I am not sure where GPs receive information in terms of the most appropriate treatment for this common injury. What you have learned in terms of functional rehabilitation and early mobilisation is currently and has always been the preferred treatment, at least as long as I have been in practice.

A recent review article has examined the literature for credible articles evaluating treatment for the acute lateral ankle sprain. They have come up with an evidence-based approach for several main issues concerning treatment.<sup>1</sup>

In a previous answer, I have written about surgical vs. nonsurgical treatment for acute ankle sprains. I will thus focus on the evidence for non-operative management.

It is important to note that I will be discussing the LATERAL ankle sprain. This includes sprains of the ATFL and CFL ligaments. Syndesmosis sprains are not included in this treatment. If a syndesmosis injury is suspected, weight bearing radiographs and urgent MRI are indicated to assess for stability and need for early surgery.

Functional Treatment vs. Immobilisation:

Immobilisation involves a prolonged period, say six weeks, of wearing a cast or boot. Functional treatment includes a short period of protection using tape, a bandage, or a brace, followed by early weight bearing, including exercises and neuromuscular training of the ankle. Twenty-one trials met the inclusion criteria presenting evidence to compare functional treatment to immobilisation. There were no findings concerning outcome in favour of immobilisation. Seven measurements of outcome produced significantly better results in favour of functional treatment. These were the following: number of patients who returned to sport and work, time to return to sport and work, objective instability, persistent swelling, and patient satisfaction. Other studies have shown that immobilisation

increases the risk of deep vein thrombosis and requires the use of DVT prophylaxis. Immobilisation also causes atrophy of muscles, which requires a longer recovery period for return to sport.

The study concluded with level I evidence that functional treatment should be considered the treatment of choice for acute lateral ankle sprains. It leads to a faster recovery with greater patient satisfaction at lower costs.

Which Function Treatment is most beneficial?

The literature supports an initial short period of protection with tape, bandage, or an ankle brace, allowing or early weight bearing. Exercises for range of motion, and neuromuscular training of the ankle, should begin as early as possible. A semi-rigid ankle brace, compared with an elastic bandage, is associated with less time before return to work or sport and less subjective instability in short-term follow up.

The evidence-based literature review concluded that ankle braces are more convenient and cost effective than tape or elastic bandage. A supervised rehabilitation program was shown to reduce time to sport and work.

In summary, there is an abundance of evidence in the literature supporting functional treatment over immobilisation. A semi-rigid ankle brace is an efficient way to allow patients early restoration of function. A supervised rehabilitation program has also been shown to quicken recovery time.

In my practice, I will occasionally recommend a boot for patients in the early ankle sprain. The boot is not meant to immobilize for a long period of time, rather it is to help the patient bear weight, as I find some patients find it hard to transition to walking after their ankle sprain.

References:

1. H Polzer, KG Kanz, et al. Diagnosis and treatment of acute ankle injuries: development of an evidence-based algorithm. *Orthop Rev.* 2012 Jan 2; 4(1): e5.

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