Following Anterior Talo-Fibular Ligament (ATFL) reconstruction in adult humans, does the use of an air-cast splint post op have any beneficial effect on pain, range and activities of daily living (ADL)?

Clinical bottom line:

Insufficient evidence currently exists, to make an informed clinical decision around the use of air-cast splints in the post-operative rehabilitation phase of reconstruction surgery of ATFL.

Criteria for Critical Appraised Topic:

Population: Adult patients with injuries of the ATFL.

Intervention: Use of Air cast splints post-operative repair of ATFL

Outcomes: Pain, range of ankle movement and activities of daily living.

Inclusion: Studies published in English

Exclusion: None English published articles.

Databases searched:

Medline, Embase, Cinahl, Ahmed.0 I, Pedro is a search of PEDRO database, I salo searched Rehab data, Web of Science, OT Seeker and NHS Evidence.

Key words searched: Anterior talo-fibular ligament or lateral ligaments, ankle and air cast or ankle within 3 words of brace or splints.

Types of Studies:

RCT’s

Available evidence:

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<th>Database (specific to CAT)</th>
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**Results:**

18 articles were found from the search, but only one encompassed the CAT question: Early mobilization versus immobilization after ankle ligament stabilization. Unfortunately this Swedish study only had a sample of 30 patients; 15 in each group. The outcome measures used in the study were Radiological evaluation of stress tests: Anterior translation and Talar tilt, torque measurements of Plantar flexion and Dorsi flexion and a scoring scale of 8 parameters to assess ankle impairment, which included pain and ADL.

This study was considered too small a sample size to base any clinical decision, or make changes to clinical practice at the present time.

**Future research questions:**

Further research to compare and evaluate the use of air-cast splints in post-operative ankle surgery needs to be considered.

**References:**


Feuerbach JW, Grabiner MD, Koh TJ, Weiker GG. Effect of an ankle orthosis and ankle ligament anaesthesia on ankle joint proprioception. American Journal of Sports Medicine, 01 March 1994, vol./is. 22/2(223-229), 03635465


Kerkhoffs GMMJ, Struijs PAA, Marti RK, Assendelft WJJ, Blankevoort L, van Dijk CN. Different functional treatment strategies for acute lateral ankle ligament injuries in adults (Review). This is a reprint of a Cochrane review, prepared and maintained by The Cochrane Collaboration and published in The Cochrane Library. 2009, Issue 1

Kerkhoffs GMMJ, Handoll HHG, de Bie R, Rowe BH, Struijs PAA. Surgical versus conservative treatment for acute injuries of the lateral ligament complex of the ankle in adults (Review). This is a reprint of a Cochrane review, prepared and maintained by The Cochrane Collaboration and published in The Cochrane Library. 2010, Issue 2.


