

- P**  **PROTECTION**  
Avoid activities and movements that increase pain during the first few days after injury.
- E**  **ELEVATION**  
Elevate the injured limb higher than the heart as often as possible.
- A**  **AVOID ANTI-INFLAMMATORIES**  
Avoid taking anti-inflammatory medications as they reduce tissue healing. Avoid icing.
- C**  **COMPRESSION**  
Use elastic bandage or taping to reduce swelling.
- E**  **EDUCATION**  
Your body knows best. Avoid unnecessary passive treatments and medical investigations and let nature play its role.
- &**
- L**  **LOAD**  
Let pain guide your gradual return to normal activities. Your body will tell you when it's safe to increase load.
- O**  **OPTIMISM**  
Condition your brain for optimal recovery by being confident and positive.
- V**  **VASCULARISATION**  
Choose pain-free cardiovascular activities to increase blood flow to repairing tissues.
- E**  **EXERCISE**  
Restore mobility, strength and proprioception by adopting an active approach to recovery.

## E-Learning Course 1.10 PEACE & LOVE

### Scientific References

- 2020-Borra, V., D. C. Berry, D. Zideman, E. Singletary & E. De Buck. Compression Wrapping for Acute Closed Extremity Joint Injuries: A Systematic Review. *Journal of Athletic Training* 55 (8): 789-800. 3
- 2020-Dubois, B. & J.-F. Esculier. Soft-tissue injuries simply need PEACE and LOVE. *British Journal of Sports Medicine* 54 (2): 72-73. 4
- 2018-Vuurberg, G., A. Hoorntje, L. M. Wink, B. F. W. van der Doelen, M. P. van den Bekerom, R. Dekker, C. Niek van Dijk, R. Krips, M. C. M. Loogman, M. L. Ridderikhof, F. F. Smithuis, S. A. S. Stufkens, E. A. L. M. Verhagen, R. A. de Bie & G. M. M. J. Kerkhoffs. Diagnosis, treatment and prevention of ankle sprains: update of an evidence-based clinical guideline. *British Journal of Sports Medicine* 52 (15): 956. 5
- 2015-Hansrani, V., M. Khanbhai, S. Bhandari, A. Pillai & C. N. McCollum. The role of compression in the management of soft tissue ankle injuries: a systematic review. *European Journal of Orthopaedic Surgery & Traumatology* 25: 987-995. 6
- 2014-Bendahou, M., F. Khiami, K. Saïdi, C. Blanchard, M. Scepi, B. Riou, S. Besch & P. Hausfater. Compression stockings in ankle sprain: a multicenter randomized study. *The American Journal of Emergency Medicine* 32 (9): 1005-1010. 7
- 2012-van den Bekerom, M. P. J., P. A. A. Struijs, L. Blankevoort, L. Welling, C. N. van Dijk & G. M. M. J. Kerkhoffs. What Is the Evidence for Rest, Ice, Compression, and Elevation Therapy in the Treatment of Ankle Sprains in Adults?. *Journal of Athletic Training* 47 (4): 435-443. 8

[2020-Borra, V., D. C. Berry, D. Zideman, E. Singletary & E. De Buck. Compression Wrapping for Acute Closed Extremity Joint Injuries: A Systematic Review. \*Journal of Athletic Training\* 55 \(8\): 789-800.](#)

**Objective:** Current prehospital recommendations for an acute closed extremity joint injury (ACEJI) are to apply compression in some manner. However, the effectiveness of compression is unclear. We performed a systematic review to summarize and synthesize the evidence for the use of a compression bandage for ACEJI in the prehospital setting.

**Data Sources:** Cochrane Library, PubMed, and Embase were searched for relevant literature in November 2019.

**Study Selection:** Controlled trials involving adults in the prehospital setting with a recent ACEJI were included when compressive, nonimmobilizing interventions, feasible in a first aid setting, were applied and compared with no compression or any noncompressive intervention, such as braces, splints, or noncompressive stockings. Articles in all languages were included if an English abstract was available.

**Data Extraction:** Data on study design, study population, intervention, outcome measures, and methodologic quality were extracted from each included article.

**Data Synthesis:** Eight studies out of 1193 possibly relevant articles were included. All authors examined compression in the treatment of acute ankle sprains; no studies involved compression for the treatment of other ACEJIs. No difference in the major outcomes of pain reduction or swelling, ankle-joint function, or range of motion could be demonstrated. For the outcome of recovery time, no benefit was shown when comparing compression with no compression. Evidence was insufficient to inform a conclusion about the outcomes of time to return to work or sport. All evidence was of low to very low quality.

**Conclusions:** The evidence for the use of a compression wrap was limited to patients with closed ankle injuries. In this systematic review, we could not demonstrate either a beneficial or harmful effect from the application of a compression or elastic bandage compared with no compression or a noncompressive stocking, splint, or brace as a first aid treatment in the prehospital environment.

**[2020-Dubois, B. & J.-F. Esculier. Soft-tissue injuries simply need PEACE and LOVE. \*British Journal of Sports Medicine\* 54 \(2\): 72-73.](#)**

Rehabilitation of soft-tissue injuries can be complex. Over the years, acronyms guiding their management have evolved from ICE to RICE, then on to PRICE and POLICE. Although widely known, these previous acronyms focus on acute management, unfortunately ignoring subacute and chronic stages of tissue healing. Our contemporary acronyms encompass the rehabilitation continuum from immediate care (PEACE) to subsequent management (LOVE). PEACE and LOVE outline the importance of educating patients and addressing psychosocial factors to enhance recovery. While anti-inflammatories show benefits on pain and function, our acronyms flag their potential harmful effects on optimal tissue repair. We suggest that they may not be included in the standard management of soft-tissue injuries.

**2018-Vuurberg, G., A. Hoorntje, L. M. Wink, B. F. W. van der Doelen, M. P. van den Bekerom, R. Dekker, C. Niek van Dijk, R. Krips, M. C. M. Loogman, M. L. Ridderikhof, F. F. Smithuis, S. A. S. Stufkens, E. A. L. M. Verhagen, R. A. de Bie & G. M. M. J. Kerkhoffs. Diagnosis, treatment and prevention of ankle sprains: update of an evidence-based clinical guideline. *British Journal of Sports Medicine* 52 (15): 956.**

This guideline aimed to advance current understandings regarding the diagnosis, prevention and therapeutic interventions for ankle sprains by updating the existing guideline and incorporate new research. A secondary objective was to provide an update related to the cost-effectiveness of diagnostic procedures, therapeutic interventions and prevention strategies. It was posited that subsequent interaction of clinicians with this guideline could help reduce health impairments and patient burden associated with this prevalent musculoskeletal injury. The previous guideline provided evidence that the severity of ligament damage can be assessed most reliably by delayed physical examination (4-5 days post trauma). After correct diagnosis, it can be stated that even though a short time of immobilisation may be helpful in relieving pain and swelling, the patient with an acute lateral ankle ligament rupture benefits most from use of tape or a brace in combination with an exercise programme.

New in this update: Participation in certain sports is associated with a heightened risk of sustaining a lateral ankle sprain. Care should be taken with non-steroidal anti-inflammatory drugs (NSAIDs) usage after an ankle sprain. They may be used to reduce pain and swelling, but usage is not without complications and NSAIDs may suppress the natural healing process. Concerning treatment, supervised exercise-based programmes preferred over passive modalities as it stimulates the recovery of functional joint stability. Surgery should be reserved for cases that do not respond to thorough and comprehensive exercise-based treatment. For the prevention of recurrent lateral ankle sprains, ankle braces should be considered as an efficacious option.

[2015-Hansrani, V., M. Khanbhai, S. Bhandari, A. Pillai & C. N. McCollum. The role of compression in the management of soft tissue ankle injuries: a systematic review. \*European Journal of Orthopaedic Surgery & Traumatology\* 25: 987-995.](#)

**Background:** Ankle sprains are very common injuries which can lead to long-term pain, swelling and instability. Compression is often used in the treatment of these common injuries but is it effective and how best is it delivered?

**Methods:** MEDLINE (1966-current), EMBASE (1980-current), Cochrane Library (2011:1) and MEDION were included in our search. Studies evaluating compression in the treatment of ankle sprains were included. Two authors independently reviewed potential studies according to a set eligibility criteria.

**Results:** Twelve studies including 1,701 patients with ankle sprains were identified (level of evidence: four grade 1b; five grade 2b; three grade 4). Intermittent pneumatic compression (IPC), elastic tubular bandage and compression bandaging were all evaluated. Five of the 12 studies reported that compression therapy improves recovery after ankle injury, of which one evaluated IPC, and the remaining four elastic bandages (Elastoplast, class II elastic stockings, wool and crepe, focal compression with air stirrup). Five studies evaluating Tubigrip in ankle sprains concluded that Tubigrip has no positive effect on functional recovery and may increase the requirement for analgesia compared with no intervention.

**Conclusion:** Compression may be an effective tool in the management of ankle injuries and has been shown to reduce swelling and improve quality of life in single studies. Definitive conclusions are hampered by the poor quality of evidence and the variety of treatments used. The most effective form of compression to treat ankle sprains or is yet to be determined. Adequately designed randomized control trials are clearly needed.

**2014-Bendahou, M., F. Khiami, K. Saïdi, C. Blanchard, M. Scepi, B. Riou, S. Besch & P. Haussfater. Compression stockings in ankle sprain: a multicenter randomized study. *The American Journal of Emergency Medicine* 32 (9): 1005-1010.**

**Objectives:** Ankle sprain is a frequently encountered traumatic injury in emergency departments and is associated with important health expenses. However, the appropriate care of this traumatic injury remains a matter of debate. We tested the hypothesis that compression stockings speed up recovery from ankle sprain.

**Methods:** Recent (<48 hours) cases of ankle sprain without other traumatic injury in patients aged between 18 and 55 years were included. Patients were randomly allocated to placebo Jersey or class II compression stockings (Venoflex; Thuasne, Levallois-Perret, France). The primary end point was the time to recovery of normal painless walking without requirement for analgesic drug. Secondary end points were time to return to sport activity, pain, analgesic consumption, and ankle edema (bimalleolar and midfoot circumferences).

**Results:** We randomized 126 patients and analyzed 117 patients (60 in the placebo group and 57 in the compression group). The median time to normal painless walking was not significantly decreased (  $P = .16$ ). No significant differences were observed in pain, analgesic consumption, and bimalleolar and midfoot circumferences. No safety issue was reported. In the subgroup of patients with regular sport activity, the time to return to sport activity was shorter in patients treated with compression stockings (  $P = .02$ ).

**Conclusions:** Compression stockings failed to significantly modify the time to return to normal painless walking in ankle sprain. A beneficial effect was observed only in a subgroup of patients, as compression stockings significantly decreased the time to return to sport activity.

**2012-van den Bekerom, M. P. J., P. A.A. Struijs, L. Blankevoort, L. Welling, C. N. van Dijk & G. M. M. J. Kerkhoffs. What Is the Evidence for Rest, Ice, Compression, and Elevation Therapy in the Treatment of Ankle Sprains in Adults?. *Journal of Athletic Training* 47 (4): 435-443.**

**Context:** Ankle sprains are common problems in acute medical care. The variation in treatment observed for the acutely injured lateral ankle ligament complex in the first week after the injury suggests a lack of evidence-based management strategies for this problem.

**Objective:** To analyze the effectiveness of applying rest, ice, compression, and elevation (RICE) therapy begun within 72 hours after trauma for patients in the initial period after ankle sprain.

**Study Selection:** Eligible studies were published original randomized or quasi-randomized controlled trials concerning at least 1 of the 4 sub-treatments of RICE therapy in the treatment of acute ankle sprains in adults.

**Data Sources:** MEDLINE, Cochrane Clinical Trial Register, CINAHL, and EMBASE. The lists of references of retrieved publications also were checked manually.

**Data Extraction:** We extracted relevant data on treatment outcome (pain, swelling, ankle mobility or range of motion, return to sports, return to work, complications, and patient satisfaction) and assessed the quality of included studies. If feasible, the results of comparable studies were pooled using fixed- or random-effects models.

**Data Synthesis:** After deduction of the overlaps among the different databases, evaluation of the abstracts, and contact with some authors, 24 potentially eligible trials remained. The full texts of these articles were retrieved and thoroughly assessed as described. This resulted in the inclusion of 11 trials involving 868 patients. The main reason for exclusion was that the authors did not describe a well-defined control group without the intervention of interest.

**Conclusions:** Insufficient evidence is available from randomized controlled trials to determine the relative effectiveness of RICE therapy for acute ankle sprains in adults. Treatment decisions must be made on an individual basis, carefully weighing the relative benefits and risks of each option, and must be based on expert opinions and national guidelines.