TITLE: Ankle Braces for the Prevention of Injury in Sport: Clinical Effectiveness

DATE: 30 June 2014

RESEARCH QUESTION

What is the clinical effectiveness of prophylactic ankle bracing for the prevention of injury in healthy teenagers and young adults participating in sport?

KEY MESSAGE

Two randomized controlled trials and two non-randomized studies were identified regarding the clinical effectiveness of prophylactic ankle bracing for the prevention of injury in healthy teenagers and young adults participating in sport.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2014, Issue 6), University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2009 and June 20, 2014. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.

RESULTS

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials and non-randomized studies.
Two randomized controlled trials and two non-randomized studies were identified regarding the clinical effectiveness of prophylactic ankle bracing for the prevention of injury in healthy teenagers and young adults participating in sport. No health technology assessments, systematic reviews, or meta-analyses were identified.

Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

Two randomized controlled trials\(^1,2\) and two non-randomized studies\(^3,4\) were identified regarding the clinical effectiveness of prophylactic ankle bracing for the prevention of injury in healthy teenagers and young adults participating in sport. High school football\(^1\) and basketball\(^2\) players were observed to have a lower incidence of acute ankle injuries but no reduction in the severity of these injuries with the use of prophylactic ankle braces. Furthermore, no reductions in the incidence rate or severity of knee or other lower extremity injuries were reported in the football players.\(^1\) Overall, no significant differences in ankle sprain incidence were reported with the use of prophylactic ankle bracing in high school volleyball players when observing the combined results for both those with and without previous ankle injuries.\(^4\) However, the authors did observe protection against ankle sprains in volleyball players without previous ankle sprain when using the Active Ankle Trainer II and the Aircast Sports Stirrup.\(^4\) As reported in one of the non-randomized studies,\(^3\) the application of prophylactic ankle support provided by the AirCast AirSport brace to restrict range of motion and improve proprioception was reported to have limited clinical usefulness under soccer-specific conditions.
REFERENCES SUMMARIZED

**Health Technology Assessments**
No literature identified.

**Systematic Reviews and Meta-analyses**
No literature identified.

**Randomized Controlled Trials**


**Non-Randomized Studies**


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APPENDIX – FURTHER INFORMATION:

Systematic Reviews and Meta-analyses – Adult Population Comparing Brace Types


Non-Randomized Studies - Comparison of Brace Types


Recommendations and Position Statements


Review Articles