

Conclusions Injury incidence in German elite hockey players were lower than in comparable studies. Localization was almost similar to findings in other studies. No/less other studies recording the wearing behavior of PPE. Injury mechanism and correlation with wearing behavior of PPE should be examined to develop further preventive measures.

280 IMPLEMENTATION OF INJURY PREVENTION PROGRAMS AFTER THEIR INITIAL EFFECTIVENESS TRIAL

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Background There is a gap between evaluating injury prevention interventions and use in practice. Implementation research aims to transfer interventions beyond research.

Objective The aim of this study was to find out whether what implementation processes took place during effectiveness studies targeting injury prevention programs, what factors hindered or facilitated this process and what activities and support were provided to promote implementation during the trial.

Design We conducted a systematic review and sent out an online survey targeting authors of included studies.

Setting Papers investigating all levels of sports (amateur, general sporting population, recreational, university, youth, and professional) were included.

Patients (or Participants) Authors of studies included in the review reporting effectiveness evaluations of injury prevention programs were contacted. Papers eligible for the survey were depicted from the review from Vriend et al. (2017) (n = 81) and updated papers (n = 31), which resulted in 112 included papers, describing 105 injury prevention programs.

Interventions (or Assessment of Risk Factors) The survey took 15 minutes to complete and could be taken only once. Participants were contacted by email and received a reminder twice.

Main Outcome Measurements The survey asked what materials or activities were used during the trial to improve the delivery, use in practice, compliance and/or adherence, monitoring of this process (i.e. compliance, adherence, exposure) and what hindered or facilitated this implementation process.

Results In total, 33 participants completed the survey. Personal face to face education and the providence of supportive material were the most used materials and activities for implementation. Compliance to the program was a key factor for implementation, and could be both, facilitator or barrier.

Conclusions This study provides initial insight into implementation activities and processes conducted during a trial. To ensure a greater impact, future studies should document their activities more detailed and formally.

281 KINESIOTAPING; DOES IT REALLY PREVENT SPORTS INJURIES?

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Background Over the last 50 years kinesiotaping has become a very popular adjunct in the treatment of sports

injuries. Its role in sports injury prevention however remains unclear.

Objectives To investigate whether kinesiotaping has a role in the prevention of sports injuries.

Methods An electronic search was conducted up to June 2019 using medical subheadings and free-text words. The subject-specific search included the terms 'Kinesio tape', 'injury prevention', 'motor control', and 'proprioception'. The search included levels 1, 2 and 3 evidence-based articles.

Results Twenty-one articles were found. The majority of the articles did not support the use of Kinesio tape in the prevention of injury nor in the increase of joint positioning sense, proprioception or increased motor control.

Conclusions It remains questionable whether Kinesio tape should be used in order to prevent sport injury.

282 A 'STEP' TOWARDS PREVENTION OF OA IN PHYSICALLY ACTIVE AMPUTEES USING A NOVEL FOOT PROSTHESIS: A RANDOMISED CONTROLLED CROSS-OVER TRIAL

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Background Individuals with unilateral transtibial amputation (UTTA) have higher external ground reaction forces in joints on their sound side during gait and this been linked to increased risk of osteoarthritis in these individuals.

Objective To describe the biomechanical characteristics in UTTA whilst using a novel, mechanically powered energy storing and returning (ESAR) ankle/foot prosthesis, compared with two control foot prostheses.

Design Randomised cross-over trial.

Setting Laboratory based study.

Participants 20 participants performed a standardized self-paced walking gait protocol using three different ankle/foot prostheses (novel ESAR foot (NOVEL), current gold standard ESAR (ESAR) foot and solid-ankle cushioned-heel (SACH) foot), in a randomised cross-over design.

Assessment of Risk Factors Three-dimensional kinematics of the lower body as well as ground reaction forces (GRF) were recorded with a ten-camera stereophotogrammetry motion capture system and three floor-imbedded force plates.

Main Outcome Measurements GRFs, external adduction moments (EAM) & ankle range of motion (ROM)

Results Despite similar peak GRFs between feet on the prosthetic side during walking ($\pm 108\%$ body weight), there were higher GRFs on the sound side during the load acceptance phase whilst participants used the SACH ($126.3 \pm 11.5\%$) and ESAR ($116.8 \pm 10.5\%$) feet, but not the NOVEL ($108.7 \pm 9.3\%$, $p < 0.001$). External Abduction Moments (EAM) observed on the sound side during loading was 0.55 ± 0.3 Nm/kg, 0.6 ± 0.3 Nm/kg and 0.7 ± 0.31 Nm/kg for the NOVEL, ESAR and SACH. The NOVEL had a sagittal ROM of $21.4 \pm 3.2^\circ$, the ESAR $18.2 \pm 3.3^\circ$ and the SACH $8.4 \pm 2.3^\circ$ ($p < 0.001$).

Conclusions The use of the NOVEL foot resulted in a similar loading/force pattern between prosthetic and sound sides in UTTA, which was not seen with the two other foot prostheses. Furthermore, participants demonstrated a better transition during double support, with improved ROM, and EAM, whilst using the NOVEL.