

- [Stay Connected](#)
- / Thursday, January 26, 2012

Search in site...

[ONLINE NEWS ASKMEDICALNEWS](#)[BRAIN TRAINING GAMES](#)[Memory](#)[Stress](#)[Focus](#)[Attention](#)[Language](#)[Intelligence](#)[▶ Play Games](#)

- [Home](#)
- [News](#)
- [Health](#)
- [Drugs](#)
- [Technology](#)
- [Business](#)
- [Events](#)

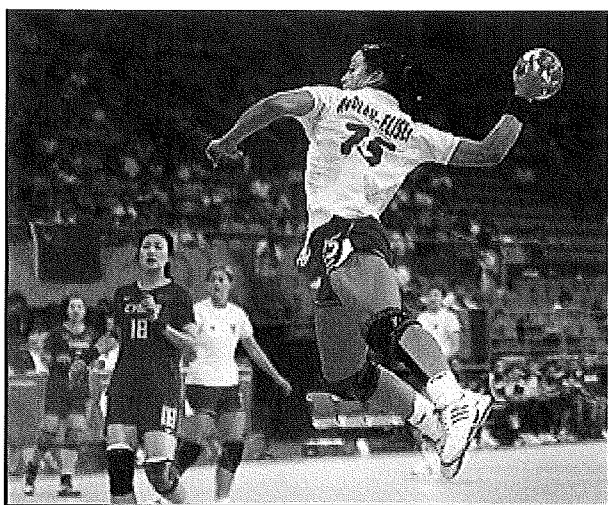
- [Contact Us](#)
- [Forum](#)

Special training for fewer injuries while playing handball

Gefällt mir

Registrieren, um sehen zu können, was deinen Freunden gefällt.

Handball is one of the top four sports, at least as far as the risk of injury is concerned. In particular, the jump shot frequently causes sprained ankles, tears to the ligaments connecting the bones of the foot and the lower leg. One of the goals of sports science is to minimize sporting injuries while also improving performance. To this end, many trainers and sports scientists are making increasing use of hi-tech methods, such as the computer modelling of moving joints.



Virtual ankle

To understand why the ankle is so prone to injury during the jump shot, a team of scientists headed by Christian Peham at the University of Veterinary Medicine, Vienna (Vetmeduni Vienna) has now investigated the stresses and strains to which the three most important ligaments in the ankle are subjected in a jump shot. Peham himself is Head of the Movement Science Group at the

Vetmeduni Vienna and the work was performed together with researchers at the University of Vienna and the Vienna University of Technology. The scientists studied digitized videos of handball players in action in combination with an anatomically precise and movable computer model of the human body. The measurements showed that there was more strain on the ligaments when the athletes land than when they jump. The ankle turned out to be particularly instable in the very short period of landing. Peham summarizes the findings, "When you land, there are additional strains on the ligaments that are hard to predict in advance and that have a particularly high risk of causing injury."

Special training for fewer injuries

The results can be used as a starting point for the development of training techniques for handball players to help them reduce the risk of injury. Junior players could particularly benefit from improved training methods, as the new and improved movements could be learned from the very start. As Peham says, "If we understand the anatomy of the ankle, its movements and the strains on it, we'll be able to give trainers tips on how to approach training to minimize the chances of injury."

The study was financed by the "Sparkling Science" programme of the Austrian Federal Ministry for Science and Research (BMWF). The method for analysing jump shots was developed together with children of the grammar schools in Frauengasse, Baden (Niederösterreich).

<http://www.vetmeduni.ac.at/en/research/top-news/jump-shot-peham/>

Gefällt mir Registrieren, um sehen zu können, was deinen Freunden gefällt.



Leave a Reply

Name (required)

Mail (will not be published) (required)

Website



CAPTCHA Code *

Anfrage senden