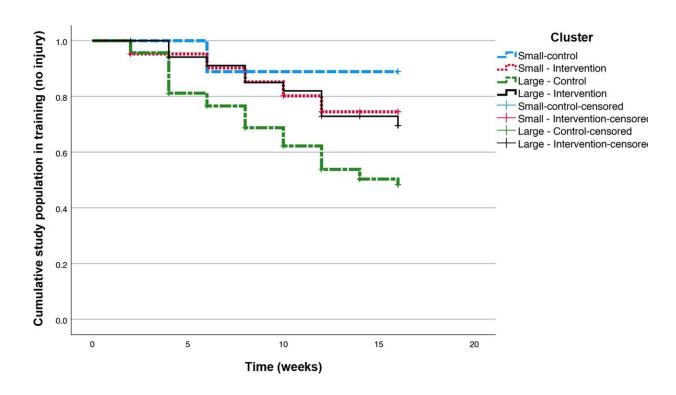


Study finds fewer sports injuries when coaches, parents have access to digital information

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Kaplan-Meier curves for time to first injury: effect of the intervention on injury incidence according to the size of club. Credit: *British Journal of Sports Medicine* (2022). DOI: 10.1136/bjsports-2021-105332

The number of injuries in youth athletics is significantly reduced when coaches and parents have access to digital information on adolescent



growth. It also takes twice as long for the first injury to occur. This is shown in a study from Linköping University published in the *British Journal of Sports Medicine*.

Many promising athletes have had their careers ruined because of injuries. One thing that almost all events in athletics have in common is a high load for a short time, as in jumping, throwing and running. This leads to overuse injuries such as groin pain and sore shoulders but also sudden injuries such as ankle sprain and hamstring tear.

Jenny Jacobsson is a physiotherapist and visiting researcher at the Athletics Research Center at Linköping University. She has worked as a medical coordinator for the Swedish national athletics team for many years and has seen the impact of injuries on athletes.

"Before the 2008 Beijing Olympics, we saw many injuries in our national team and tried to figure out why. At the time, no survey had been done of injury incidence in athletics athletes. But we wanted to find out what was happening among our <u>elite athletes</u> from age 16 and up, including adult elite athletes," says Jenny Jacobsson.

The survey of injuries in Swedish athletics showed that one of the main causes of injury was prior injury. This means that the earlier an <u>athlete</u> is injured in their career, the higher the likelihood that they will be injured later and more frequently. But causes of injury in <u>youth sports</u> is a complex matter, associated with everything from training amount and load to equipment, and even sleep.

Together with her colleagues at the Athletics Research Center, Jenny Jacobsson has developed a digital health platform containing information for parents and youth coaches on adolescent growth and how this is affected by training, with a focus on athletics athletes aged 12–15.



To investigate whether this type of platform can prevent injuries, the researchers carried out a study where 21 athletics clubs with athletes aged 12–15 were randomized into two groups: an intervention group and a control group. For four months during the early season, the intervention group parents and coaches were given access to the <u>digital</u> <u>information</u> platform, which at the time was not open to outsiders (but is now open to anyone). They were also regularly encouraged to log in and explore its content.

The researchers noted that the clubs given access to the information showed significantly lower injury incidence and that it took twice as long for the first injury to occur. Moreover, the effect was greater in large clubs. The results, published in the *British Journal of Sports Medicine*, can point the way to more injury-free athletics.

"We haven't investigated the mechanism leading to change, but we can see that digital information works when it comes to <u>injury</u> prevention. If coaches and parents learn to recognize the problems, it's possible to reduce the training load in time. Medically we know what is happening in growing bodies, but getting the information out to those who can benefit from it has been a challenge. This platform may bridge that gap," says Jenny Jacobsson.

More information: Jenny Jacobsson et al, Universal prevention through a digital health platform reduces injury incidence in youth athletics (track and field): a cluster randomised controlled trial, *British Journal of Sports Medicine* (2022). DOI: 10.1136/bjsports-2021-105332

Provided by Linköping University

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