Medical Xpress

Wearable neuromuscular device may help reduce ACL injuries in female soccer players

July 8 2016

Using a wearable neuromuscular device can reduce the risk of ACL injury in female soccer athletes, according to new research presented today at the American Orthopaedic Society for Sports Medicine's (AOSSM) Annual Meeting in Colorado Springs, CO. The study showed functional improvements in athletes who used the devices in combination with a regular training program.

"Our study showed that training with a wearable neuromuscular (WNM) device improved postural control in athletes, without limiting performance," said Michael John Decker, PhD, from the University of Denver in Denver, Colorado. "Moreover, no athletes in the study experienced an ACL injury during training or over the course of the following season."

A total of 79 elite youth and collegiate female soccer players (age 12-25) in the study trained with a WNM device that applied bi-lateral, topical pressure to the medial quadriceps and hamstring muscles. The athletes performed 7 to 9 weeks of pre-season training with the device consisting of strength and conditioning exercises and on-field team practices.

"Research has shown female soccer players have a three times greater risk of ACL injury compared to males, yet only a small portion of soccer coaches are currently utilizing ACL injury risk reduction programs," commented Decker. "We hope these devices offer coaches a practical means to overcome participation barriers, opening the door for more organizations and teams to implement similar programs."

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Provided by American Orthopaedic Society for Sports Medicine

Citation: Wearable neuromuscular device may help reduce ACL injuries in female soccer players (2016, July 8) retrieved 18 September 2024 from https://medicalxpress.com/news/2016-07-wearable-neuromuscular-device-acl-injuries.html

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