Relationship between Core Stability and Athletic Injuries

Investigators

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Summary / Overview

Core stability training has gained popularity in clinic settings despite limited evidence to support its use for the prevention or rehabilitation of extremity injuries in athletes. Core stability (neuromuscular control and muscle capacity of the trunk and pelvis) has been theoretically linked to optimal function in athletes. Impairments in core stability could theoretically result in less than optimal performance and abnormal force dissipation to the extremities leading to injuries. However, a paucity of literature exists to support the relationship between core stability and upper extremity function, injury, and performance in the athletic population. In addition, clinical measures of core stability have not been validated, and lab-based measures have not been systematically and prospectively used to study core stability in an athletic population. This has resulted in several knowledge gaps that hinder clinical identification of core stability deficits in athletes, as well as the determination of the role that core stability has in athletic injuries. The specific aims of this line of research are to 1) determine the strength of the association between clinical and lab-based measures of core stability in the athletic population and 2) identify the clinical and lab-based measures of core stability that are significant predictors of shoulder injuries in athletes.
Funding


Participating Sites

Drexel University Physical Therapy Services
GSPP Penn Therapy and Fitness at Penn
Sports Medicine Center

Presentations


Contact us

If you are interested in learning more about current low back pain studies being conducted through the Rehabilitation Sciences Spine Research Lab at Drexel University, please contact Dr. Sheri Silfies at 215.762.3589 or silfies@drexel.edu.