

More Research Needed to Verify Effectiveness of ACL and Knee Injury Prevention Programs, Study Says

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The jury is still out on the effectiveness of prevention programs for knee injuries in young athletes, according to a study presented today at the American Orthopaedic Society for Sports Medicine Annual Meeting. Better designed research studies are needed before it can be determined that ACL and knee injuries can be prevented with specialized training programs, the study noted.

“There is evidence that injury prevention programs may reduce the risk of some [knee injuries](#), but additional research is necessary,” said Kevin G. Shea, M.D., Intermountain Orthopaedics, Boise, Idaho. “Questions about the efficacy of some programs exist and additional well-designed research studies need to be conducted before we can definitively prove the value of these programs for ACL and other knee injury.”

An estimated 200,000 ACL injuries occur annually in the U.S, according to the American Journal of [Sports Medicine](#). Approximately, 15 percent of all [sports injuries](#) involve the knee. Fifty percent of those injuries result in a doctor or hospital visit.

In the study, the authors searched for ACL/Knee injury prevention program studies in three medical databases. Then, using a “quality of evidence” ranking algorithm, the authors evaluated the studies. Fifteen studies were found that met the authors’ research criteria. Of the 15 studies, nine demonstrated a reduction of knee or ACL injury. Of the 13

studies that looked at ACL injury specifically, five studies demonstrated a reduction of ACL injury. Careful review of these studies, however, showed that many contained design flaws. These design flaws introduce bias into the results, which raises questions about the effectiveness of some injury prevention programs, the study noted.

“At this time, we do not have the highest quality research designs showing us that preventive training programs can reduce knee/ACL injuries,” said Shea. “That doesn’t mean that these training programs do not help - I encourage my own children and my patients to be do these exercises, as the existing evidence suggests some benefit to these training programs. But, we need better research evidence that confirms the effectiveness of [injury prevention](#) programs. These types of studies are difficult to conduct, and require significant resources to produce the research. The sports medicine community should continue research in this area, including NIH funded studies to conduct the high quality clinical trials.”

Provided by American Orthopaedic Society for Sports Medicine

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