



UNINJURED PEDIATRIC ATHLETES HAVE BASELINE LIMB ASYMMETRIES ON COMMON RETURN-TO-SPORT PHYSICAL PERFORMANCE TESTS

Leg differences in the uninjured pediatric population is prevalent on common physical performance tests



Why We Did This Study

Doctors struggle to know when children can return to sports after lower body injuries. Doctors and physical therapists usually use tests to compare strength and balance between the legs. The belief is that uninjured children have the same strength and balance on both sides.

We tested uninjured children to see if this is true. We looked at the differences between legs on common physical performance tests. We considered child traits such as age, size, and dominant leg.

We found differences between legs in uninjured children. This would suggest that doctors should be careful when using the difference between legs to decide if a child is fully recovered and ready to return to sports.

WHO PARTICIPATED IN THE STUDY?

- Participants (ages 6-18) were recruited from sports leagues, sports-medicine clinics, and the local community.

WHAT WERE THE STUDY RESULTS?

This study found that:

- Many uninjured children show differences in their legs during physical performance tests.
- Only between 23% to 73% of uninjured children achieve equal or more than 90% on the ratio. This is the commonly used clinical cutoff for deciding if an athlete can return to play.



WHAT THESE RESULTS MEAN

Many uninjured children have differences between their legs during common physical performance tests.

Our results do not mean that the differences between the legs should be ignored. Instead, doctors, parents, and athletes should also keep in mind leg strength and preference from before the injury. All three factors are important. This is especially the case for young athletes. Pre-injury leg strength and performance is not usually measured. But, this possibly could be done as part of preseason physicals.

These results may not affect or apply to each person. This study is one “piece of the puzzle” for this treatment; additional information may be available from other studies now or in the future. You should talk about these results with your personal provider to decide if the results should affect your clinical care.



Read more about this study at the [Orthopaedic Journal of Sports Medicine](#).