

# Reduced non-dominant lumbar multifidi cross-sectional area is a precursor of low back injury in cricket fast bowlers

Scandinavian Journal of Medicine and Science in Sports  
2016 (published online)

Benita Olivier, Nadia Gillion, Aimee Stewart, Warrick McKinnon  
Physiotherapy Department, Faculty of Health Sciences, University of the  
Witwatersrand, Johannesburg, South Africa.

## BACKGROUND

Low back injuries are common in fast bowlers.

The multifidi muscle stabilises the low back prior to movement. Poor multifidi function increases the risk to and the recurrence of low back pain.

## HOW WAS THE STUDY DONE?

Low back ultrasound imaging was performed on 26 right-handed fast bowlers at the start of the cricket season and their injuries were monitored over the course of the cricket season.

## WHY WAS THE STUDY DONE ?

If a difference in side to side cross-sectional area of the multifidi muscle is associated with the incidence of injury during the cricket season, The measurement of multifidi muscle can be included in pre-season screening programmes. Consequent early identification of fast bowlers at risk of injury, can lead to effective preventative interventions.

## WHAT WAS FOUND?

Even though the fast bowling action is an asymmetrical action, the left and right low back multifidi muscle in injury-free fast bowlers were similar in size. A smaller multifidi muscle on the non-bowling side may be a precursor to low back injury.

## ACKNOWLEDGEMENTS

The Carnegie Foundation, the National Research Foundation and the South African Society of Physiotherapy for funding. The fast bowlers who participated in this study for their time and enthusiasm.