Reviewer’s report

**Title:** Lower hamstring extensibility in men compared to women is explained by differences in stretch tolerance

**Version:** 1  **Date:** 9 April 2014

**Reviewer:** Bernadette Murphy

**Reviewer’s report:**

This interesting study examined whether passive hamstring tissue stiffness and/or stretch tolerance explain the relationship between sex and hamstring extensibility. As the authors point out, passive hamstring stretching is often recommend as part of low back and lower limb rehabilitation programs, and yet there are major discrepancies in the literature as the reason for decreased hamstring extensibility as well as possible differences between males and females. The authors clearly acknowledged the body of work in this area as well as the gaps and discrepancies that they were attempting to address.

The methodology was very carefully applied. It is a major strength that the authors tested 90 healthy young participants (45 males and 45 females). The authors measured the relative stiffness (Megrad) through the common range of motion (20 to 50° based on hip flexion angle) which was calculated from the slope of a linear trend line fitted to torque values recorded from 20 to 50° hip flexion. All methods were were clear and well described, with careful detail paid to participant positioning and stabilization to standardize hip and low back angles. The manuscript adhered to relevant reporting standards.

A further strength of the work include clear descriptions of the participants’ exercise and sporting histories, including descriptions of those who stretched, as well as exclusion of those with previous injuries.

The study is well written, and addresses an important issue which is well summarized by the title “Lower hamstring extensibility in men compared to women is explained by differences in stretch tolerance”. I am happy to see it published without revision.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

'I declare that I have no competing interests’