THE INFLUENCE OF FOOTWEAR ON BALL HANDLING IN SOCCER

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Introduction

Ball handling, the interaction between foot and ball, is a key component of soccer. Footwear was shown to influence ball velocity and accuracy during standardized kicking techniques [1, 2]. However, ball handling comprises all sorts of foot and ball interaction. Therefore, this research quantified footwear related general ball handling performance and respective perception of soccer players by use of an innovative ball handling protocol.

Methods

19 experienced soccer players (4^{th} to 10^{th} German league) performed subjective and objective ball handling tests. These included dribbling, juggling, lofted passing of stationary ball, one touch passing of rolling ball and one touch passing from aerial. Different footwear conditions were two soccer shoe models, a non soccer specific indoor court shoe and barefoot. Shoe performance and respective perception were analyzed using repeated measures ANOVA and Bonferroni post-hoc tests ($p < 0.05$).

Results & Discussion

Objective performance measurements revealed only few statistically significant differences between footwear. In contrast, subjective perception measurements showed statistical differences between footwear. Subjects perceived soccer specific footwear and barefoot to be better suited for ball handling performance than non soccer specific footwear ($p<0.01$). Additionally, subjects tended to judge ball handling between the two soccer shoes to be different (n.s). However, subjective ball handling perception did not generally reflect objective performance of players.

Conclusion

Footwear changes perception of ball handling performance. It may also alter actually measurable performance. Specific mechanisms allowing players to exhibit increased ball handling performance by use of footwear have not been identified yet. Thus, soccer research should also aim to establish suited biomechanical and mechanical protocols for the analysis of interface characteristics of foot and ball.

References

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