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The influence of joint rigidity on impact efficiency and ball velocity in football kicking

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1 Title

2 The influence of joint rigidity on impact efficiency and ball velocity in football kicking

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17 Abstract

18 Executing any skill with efficiency is important for performance. In football kicking,
19 conflicting and non-significant results have existed between reducing ankle plantarflexion during
20 foot-ball contact with impact efficiency, making it unclear as to its importance as a coaching
21 instruction. The aims of this study were to first validate a mechanical kicking machine with a non-
22 rigid ankle, and secondly compare a rigid to a non-rigid ankle during the impact phase of football
23 kicking. Measures of foot-ball contact for ten trials per ankle configuration were calculated from data

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