

Author's Accepted Manuscript

Soldier-relevant body borne loads increase knee joint contact force during a run-to-stop maneuver

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PII: S0021-9290(16)31120-4
DOI: <http://dx.doi.org/10.1016/j.jbiomech.2016.10.022>
Reference: BM7932

To appear in: *Journal of Biomechanics*
Accepted date: 16 October 2016

Cite this article as: John W. Ramsay, Clifford L. Hancock, Meghan P. O'Donovan, Tyler N. Brown and John W Ramsay, Soldier-relevant body borne loads increase knee joint contact force during a run-to-stop maneuver, *Journal of Biomechanics*, <http://dx.doi.org/10.1016/j.jbiomech.2016.10.022>

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Title of this Original Article:

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Keywords: load carriage, knee contact force, run to stop, OpenSim, leg stiffness

Abstract:

The purpose of this study was to understand the effects of load carriage on human performance, specifically during a run-to-stop (RTS) task. Using OpenSim analysis tools, knee joint contact force, grounds reaction force, leg stiffness and lower extremity joint angles and moments were determined for nine male military personnel performing a RTS under three load configurations (light, ~6 kg, medium, ~20 kg, and heavy, ~40 kg). Subject-based means for each

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