Author's covering letter for initial submission

Title: Activity-Related Energy Expenditure during Lower Limb Cast Immobilization in Children

Authors:

Version: 1
Date: 28 February 2014

Comments:

Dear Editor,

Please find enclosed our manuscript entitled “Activity-Related Energy Expenditure Decrease during Lower Limb Cast Immobilization in Children”. This manuscript has been written by first and last authors and approved by all authors and requirements for authorship have been met. No honorarium, grant, or other form of payment was given to anyone to produce the manuscript. No conflicts of interest are to be declared. This work is original and has not been previously published. There are prior publications with overlapping information which are cited in the manuscript. It is not and will not be submitted to any other journal. Should it be published in BMC Health Services Research, it will not be published elsewhere—either in similar form or verbatim—without permission of the editors.

Physical activity (PA) is fundamental for children and adolescents’ normal health and development, whereas physical inactivity is recognized as a risk factor for the development of many chronic diseases. A decrease of PA is frequently associated with a sedentary lifestyle but also with immobilization. Results of this study demonstrate that immobilization leads to a decrease of activity related energy expenditure in injured adolescents compared to matched healthy controls. This energy gap represents each day a surplus of 125 kcal, which corresponds to 5.2 hours of light PA. We concluded that to limit fat mass accumulation, fractured children and adolescents should be warned about potential weight gain and coached to limit energy intake.

Thank you very much for considering this article for publication in BMC Health Services Research.

Yours sincerely,

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