Author's response to reviews

Title: Swimming performances in long distance open-water events with and without wetsuit

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Extreme Physiology & Medicine
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Editors-in-Chief

Dear Editors

Swimming performances in long distance open-water events with and without wetsuit

We would like to submit this manuscript as an original research article for your journal

‘Extreme Physiology & Medicine’. This manuscript contains material that is original and not previously published in text or on the internet, nor is it being considered elsewhere until a decision is made as to its acceptability by ‘Extreme Physiology & Medicine’ Editorial Review Board. We are responsible for the research we have designed and carried out. All the authors have been involved in collecting data, writing, drafting and revising the manuscript and approve its content. The research reported in the paper was undertaken in compliance with the Helsinki Declaration. The authors have no conflict of interest.
Why should this manuscript be published in ‘Extreme Physiology & Medicine’? Existing literature showed an improved swimming performance for athletes wearing wetsuits while swimming in pools on short to middle distances under standardized conditions. Data about the influence of wetsuits on swimming performances in long and ultra-long open-water swimming are missing. Moreover, it is also unknown if the benefit of wearing wetsuits is equal in men and women. The aim of this study was to investigate the influence of wearing a wetsuit on swimming performances at the ‘Marathon Swim in Lake Zurich’ in Lake Zurich (26.4km) and the Lake Ontario Swim Team-Race (LOST-Race) in Lake Ontario (3.8km). The main findings were that on both race distances men were faster than women. In men, faster race times were observed for the overall top three swimmers wearing wetsuits (5.9%) in 26.4km. In the same race, swimming times of the top, the top three and the top ten swimmers ever were equal. In 3.8km, the fastest female swimmers (11.5%), the top three female swimmers (11.6%) and the top ten female swimmers (6.5%) wearing wetsuits swam faster than women without wetsuits. These results suggest that wearing a wetsuit had a positive influence on swimming speed for both women and men but the benefit of the use of wetsuits depends on additional factors like race distance. In long-distance open-water swimming women seemed to benefit more from wearing wetsuits than men.

Yours sincerely,

Beat Knechtle

Enclosure: Manuscript via central website
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