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Original Manuscript

Unmatched speed perceptions between overground and treadmill manual wheelchair propulsion in long-term manual wheelchair users

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Highlights

- Manual wheelchair users self-select a slower speed on a treadmill than overground.
- This may be caused by altered proprioception and control.
- This mismatch reduces power output and work on a treadmill.
- For training, the treadmill speed should match the overground self-selected speed.

Abstract

Background: Manual wheelchair (MWC) propulsion is increasingly assessed on a motorized treadmill (TM), which is often considered more ecologically valid than stationary rollers. However, no clear consensus on the similarities between overground (OG) and TM propulsion has yet been

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