

Is high-intensity training advantageous in individuals with chronic traumatic brain injury?

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A new study suggests that high-intensity training (HIT), compared to

conventional training, may improve walking ability in patients with chronic traumatic brain injury (TBI). Possible secondary benefits may include improved aerobic capacity/efficiency and cognition.

The work is [published](#) in the *Journal of Neurotrauma*.

T. George Hornby, PT, Ph.D., from Indiana University School of Medicine, and co-authors, evaluated the effects of HIT focused on stepping practice versus conventional [training](#) on walking in individuals with chronic TBI. HIT focused on maximizing stepping practice while trying to achieve higher cardiovascular intensities. The investigators observed greater increases in 6-minute walk test and peak treadmill speed during exercise testing following HIT vs. conventional training.

"The present and previous results suggest that such training interventions may be important components of rehabilitation interventions to improve walking and possibly other secondary outcomes for individuals with chronic TBI, consistent with data in [patients](#) with other acute-onset neurological injuries," stated the investigators.

"This is a small but important randomized controlled trial. It provides initial evidence that higher intensity cardiovascular training can be beneficial for people living with chronic effects of traumatic brain [injury](#). I am excited to see where this field goes in the future," says David L. Brody, MD, Ph.D., Editor-in-Chief of *Journal of Neurotrauma*.

More information: Abbey Plawecki et al, Comparative Efficacy of High-Intensity Training Versus Conventional Training in Individuals With Chronic Traumatic Brain Injury: A Pilot Randomized Controlled Study, *Journal of Neurotrauma* (2024). [DOI: 10.1089/neu.2023.0494](https://doi.org/10.1089/neu.2023.0494)

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