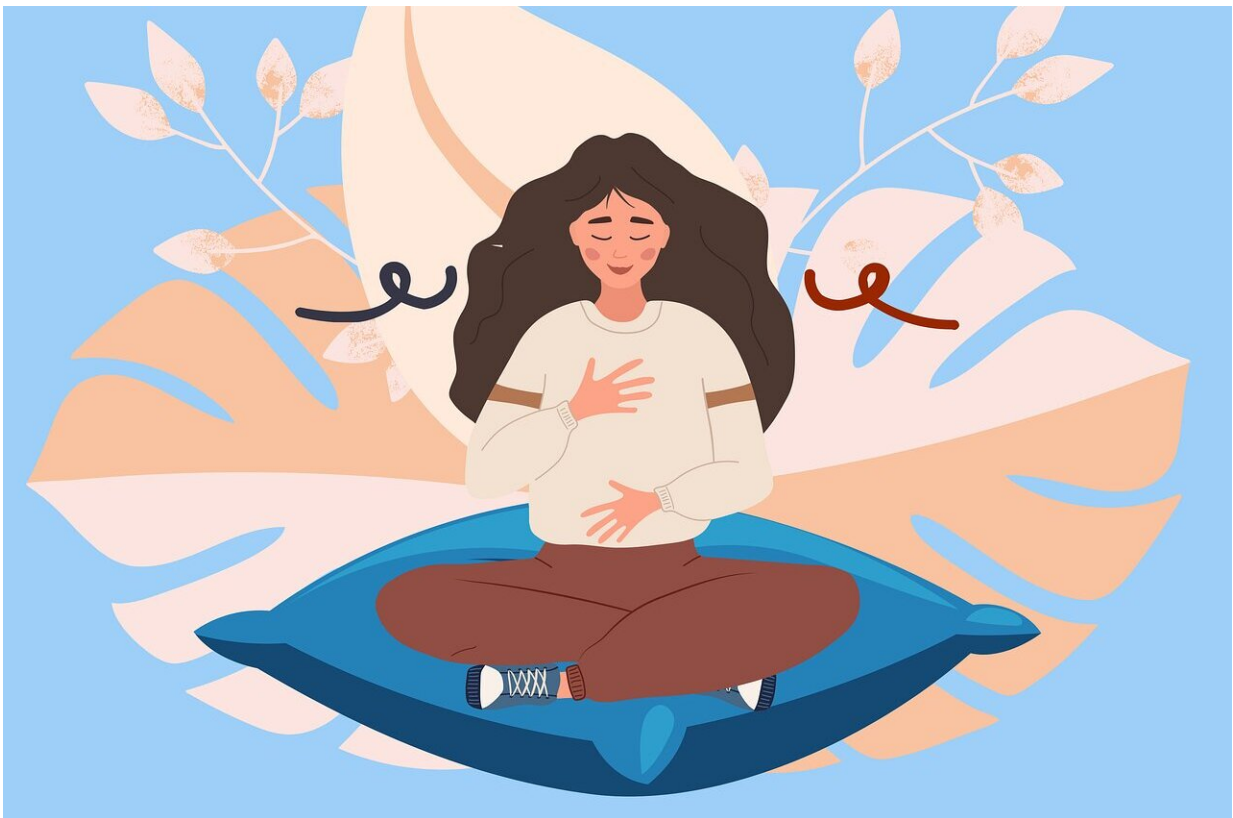


Review suggests the Wim Hof method may reduce inflammation, but has mixed effects on exercise performance

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The Wim Hof method may produce a beneficial anti-inflammatory response, according to the new systematic review. Credit: RosZie, Pixabay, CC0 (creativecommons.org/publicdomain/zero/1.0/)

The Wim Hof method may produce a beneficial anti-inflammatory response characterized by increased epinephrine levels and a reduction in pro-inflammatory cytokines, according to a systematic review published in the open-access journal *PLOS ONE* by Omar Almahayni and Lucy Hammond from the University of Warwick, UK.

The Wim Hof method is touted by founder and extreme athlete Wim Hof as a practical way to improve physical and [mental health](#). It consists of three pillars—the Wim Hof breathing method, cold therapy, and commitment.

Several studies have assessed the impact of the Wim Hof method on immune and stress responses, exercise performance, and [psychological responses](#), but independent studies are generally too small to draw clear conclusions. No one has synthesized the results of these studies to identify consistent trends.

In this [systematic review](#), researchers evaluated both physiological and psychological outcomes of the Wim Hof method across eight trials. The most prominent changes were seen in stress and anti-inflammatory response parameters.

Multiple studies found significant increases in epinephrine, a stress response hormone. Two studies found significantly lower levels of the [pro-inflammatory cytokines](#) TNF- α , IL-6, and IL-8 and higher levels of the anti-inflammatory cytokine IL-10.

The impact of the Wim Hof method on [exercise performance](#), as measured by respiratory parameters such as breathing frequency was less clear, with some studies showing a benefit and others finding no significant difference.

While the results suggest that the Wim Hof method may have

physiological benefits, researchers stressed the need for more robust, confirmatory research before the method can be recommended given the small sample sizes and the high risk of bias in current trials.

The authors add, "Our systematic review underscores the need for further investigation into the Wim Hof method's effects on stress, inflammation, and overall health, offering valuable insights into its potential as a complementary approach to wellness."

More information: Does the Wim Hof Method have a beneficial impact on physiological and psychological outcomes in healthy and non-healthy participants? A systematic review, *PLoS ONE* (2024). [DOI: 10.1371/journal.pone.0286933](https://doi.org/10.1371/journal.pone.0286933)

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