

# Cold plunging might help heart health, research suggests

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Scores of Instagram influencers claim that a dunk into a frigid bath will boost physical and mental health and help the body recover more quickly from exercise.

While it's not a miracle cure, there might indeed be some health benefits to the trend of cold plunging, new research from the University of Oregon suggests.

The [study](#) was published in the December 2023 edition of the *Journal of Thermal Biology*.

"We found that a 15-minute immersion can help specific biomarkers of physiological health, and improve participants' psychological well-being," said Chris Minson, the Kenneth and Kenda Singer Professor in Human Physiology at the UO, who led the work alongside graduate student Emma Reed.

Minson and his team tracked a variety of health measures in [college students](#) before, during and after a short cold-water immersion. They found a significant reduction in participants' heart rate, [blood pressure](#) and a common stress biomarker called cortisol after the cold plunge.

And they noted that participants reported better moods three hours after immersion, suggesting that the practice can help a variety of health and [psychological factors](#).

To understand how these chilly experiences really support cardiovascular health, Minson and his team then looked more closely at the way blood moved through participants' blood vessels.

Blood flow follows a specific pattern during rest. But during exercise, this pattern changes; the blood puts greater force on the vessels it's flowing through, increasing what's known as [shear stress](#). Over time, this can enhance cardiovascular health.

Minson and his colleagues speculated that the stress of cold immersion might alter the shear stress patterns in participants and provide a

potential link to health benefits.

The researchers found slight changes to shear stress patterns after cold-water immersion, measured through ultrasound, suggesting that the changes in shear stress may help drive the cardiovascular benefits of cold-water immersion.

Future work will continue to explore the full spectrum of benefits offered by this seemingly simple practice, including the relationship between cold-water immersion, cardiovascular health and psychological well-being.

This current study examined the impact of a one single 15-minute cold-water session, but Minson and his team have an ongoing interest in understanding what repeated cold-water immersions might do to [cardiovascular health](#) and psychological well-being. The lab is also exploring the effects of other environmental stressors on health and body function, including heat exposure.

"Together, this work advances our understanding of the tangible benefits that cold-water immersion may provide athletes and the broader spectrum of individuals seeking to improve their health and well-being," Minson said.

**More information:** Emma L. Reed et al, Cardiovascular and mood responses to an acute bout of cold water immersion, *Journal of Thermal Biology* (2023). [DOI: 10.1016/j.jtherbio.2023.103727](https://doi.org/10.1016/j.jtherbio.2023.103727)

Provided by University of Oregon

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