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Why the eight glasses of water rule isn't real

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You've probably heard you should drink eight glasses of water a day – but that advice is not grounded in scientific evidence.



The 8x8 rule, as it's widely known, says people should drink eight metric cups of water a day (8 American 8-ounce cups) – not including coffee or beer. All up, that would mean you'd be drinking about 2 litres of water every 24 hours.

It's a catchy phrase, but it has no scientific basis. The myth of eight glasses-per-day is believed to have originated from the United States Food and Nutrition Board in 1945.

Back then, the board said

2.5 litres was a suitable allowance of water for adults – but just two sentences later, the board said most of that would be met through what you eat anyway.

Remember, water is in your fruits, your veggies, prepared foods, and your daily cup of tea or coffee.

The 8x8 rule has likely spread due to the illusory truth effect – a documented phenomenon where people believe something because they have heard it before. People incorrectly correlate frequency with truth. But the 8x8 rule is a myth.

A 2002 review sought to find scientific evidence supporting it, but none was found. In 2007, the peerreviewed British Medical Journal included the 8x8 rule as its first entry on a list of "medical myths".

A 2014 study published in another prestigious science journal, PNAS, found once people had satisfied their thirst through drinking, continuing to drink would actually become unpleasant.

So how much water should you drink? Well a one-size-fits-all recommendation for water intake isn't helpful because everyone has different needs. Body weight, temperature, and whether you've been exercising all affect how much water you need.

Associate professor Michael J. Farrell, one of the authors of the 2014 PNAS study, said if people just do what their body demands, they'll likely get it right. People should drink according to thirst, rather than an elaborate schedule, he said.

The Mayo Clinic, a US-based nonprofit providing health information, also says while the 8x8 rule is a reasonable goal, most people can stay healthy by just drinking water when they feel thirsty.

■ Reporting disclosure statement: University of Otago School of Physical Education, Sport and Exercise Sciences Professor Jim Cotter was consulted for expert advice. It was reviewed by The Whole Truth: Te Ma¯ramatanga expert advisory panel member Dr Lisa Te Morenga before publication.