

Drinking kefir may prompt brain-gut communication to lower blood pressure

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Drinking kefir may have a positive effect on blood pressure by promoting communication between the gut and brain. Kefir is a fermented probiotic milk beverage known to help maintain the balance of beneficial bacteria in the digestive system. Researchers will present their findings today at the American Physiological Society (APS) annual meeting at Experimental Biology 2018 in San Diego.

Previous research has shown that an imbalance in the gut's colony of bacteria (microbiota) may cause [high blood pressure](#) in some people. Similarly, probiotics—live bacteria supplements that are beneficial to the digestive system—have been found to [lower blood pressure](#), but the mechanisms by which this occurs are unclear.

A research team from Auburn University in Alabama, in collaboration with the University of Vila Velha in Brazil, studied three groups of rats to determine how kefir reduces high blood pressure (hypertension):

- One group had hypertension and was treated with kefir ("treated").

- One group had hypertension and was not treated ("untreated").
- One group had [normal blood pressure](#) and was not treated ("control").

After nine weeks of kefir supplementation, the treated rats had lower levels of endotoxins (toxic substances associated with disruption in the cells), lower [blood pressure](#) and improved intestinal permeability when compared with the untreated group. Healthy intestines allow some substances to pass through, but generally act as a barrier to keep out harmful bacteria and other potentially dangerous substances. In addition, kefir supplementation restored the natural balance of four different bacteria in the gut and of an enzyme in the brain essential for normal nervous system function, suggesting that the nervous and digestive systems work together to reduce hypertension.

"Our data suggests that kefir antihypertensive-associated mechanisms involve gut microbiota-brain axis communication during hypertension," the researchers wrote.

More information: Mirian Silva-Cutini, of Auburn University, will present "Probiotic kefir antihypertensive effects in spontaneously hypertensive rats involve central and peripheral mechanisms" on Wednesday, April 25, in the Sails Pavilion of the San Diego Convention Center.

Provided by Experimental Biology 2018

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