

Animal study suggests ketone supplement more effective for weight loss

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New study suggests ketone supplement more effective than lowcarbohydrate, high-fat ketogenic diets at reducing body weight in mice

A study published in *The FASEB Journal* found that ketone supplementation decreased body fat and body weight in mice placed on a high-fat diet. The findings could have implications for an alternative to low-carbohydrate, high-fat ketogenic diets to help lower body fat and weight.

To conduct the study, researchers fed all mice in the study a high-fat diet for 12 weeks. After 12 weeks, they placed the obese mice in three random groups and observed them for another 12 weeks. During this time, the first group (which served as the control group) remained on the high-fat diet. The second group remained on the high-fat diet but were given a ketone supplement that replaced 30 percent of their prior caloric intake. The third group remained on the high-fat diet but were given approximately 25 percent fewer calories to closely match the caloric intake produced by the ketone supplement.

The study showed that the mice in the second group that received ketone supplementation experienced greater weight loss than the <u>mice</u> in the third group that received similar <u>caloric intake</u>. The novel findings suggest that the ketone supplementation used in this study either increased calories expended or decreased calories available for storage.

"The difficulties of losing and keeping off weight are well known," said



Eric P. Plaisance, Ph.D., an assistant professor of exercise science and nutrition at The University of Alabama at Birmingham's Department of Human Studies. "This study forms the basis for developing human studies to explore how ketone supplements could help people lose and keep off weight."

"This new lead is a welcome development," said Thoru Pederson, Ph.D., Editor-in-Chief of *The FASEB Journal*.

Provided by Federation of American Societies for Experimental Biology

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