

Intermittent fasting protects kidneys of obese mice

June 27 2022



Credit: Unsplash/CC0 Public Domain

New research in a mouse model of diet-induced obesity finds that time-restricted feeding improves markers of kidney and vascular health. The research will be presented this week at the American Physiological

Society (APS) and American Society for Nephrology [Control of Renal Function in Health and Disease conference](#) in Charlottesville, Virginia.

A research team based out of the University of Alabama at Birmingham fed mice either a high-fat or normal diet. After the mice developed obesity, the researchers split the high-fat diet animals into two groups. Half maintained continuous access to food while the other half had access restricted to the 12 hours they were most active—7 p.m. to 7 a.m.

The time-restricted mice showed a number of improvements to their kidney health compared to the other high-fat diet mice. They excreted less of a key marker of kidney damage. They showed less damage to two different parts of the tissue and reversed damage in the space between cells. The [small blood vessels](#) in their kidneys had increases in the metabolic coenzyme, NAD⁺, and activation of the key metabolic enzyme, AMPK, was similar to that of normal-diet [mice](#).

"These data indicate that restricting timing of high fat intake reduces renal damage and increases renal vascular metabolism, perhaps associated with increased AMPK activation, during diet-induced [obesity](#)," the researchers concluded.

Provided by American Physiological Society

Citation: Intermittent fasting protects kidneys of obese mice (2022, June 27) retrieved 13 February 2024 from <https://medicalxpress.com/news/2022-06-intermittent-fasting-kidneys-obese-mice.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.