

Intermittent fasting protects kidneys of obese mice

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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

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