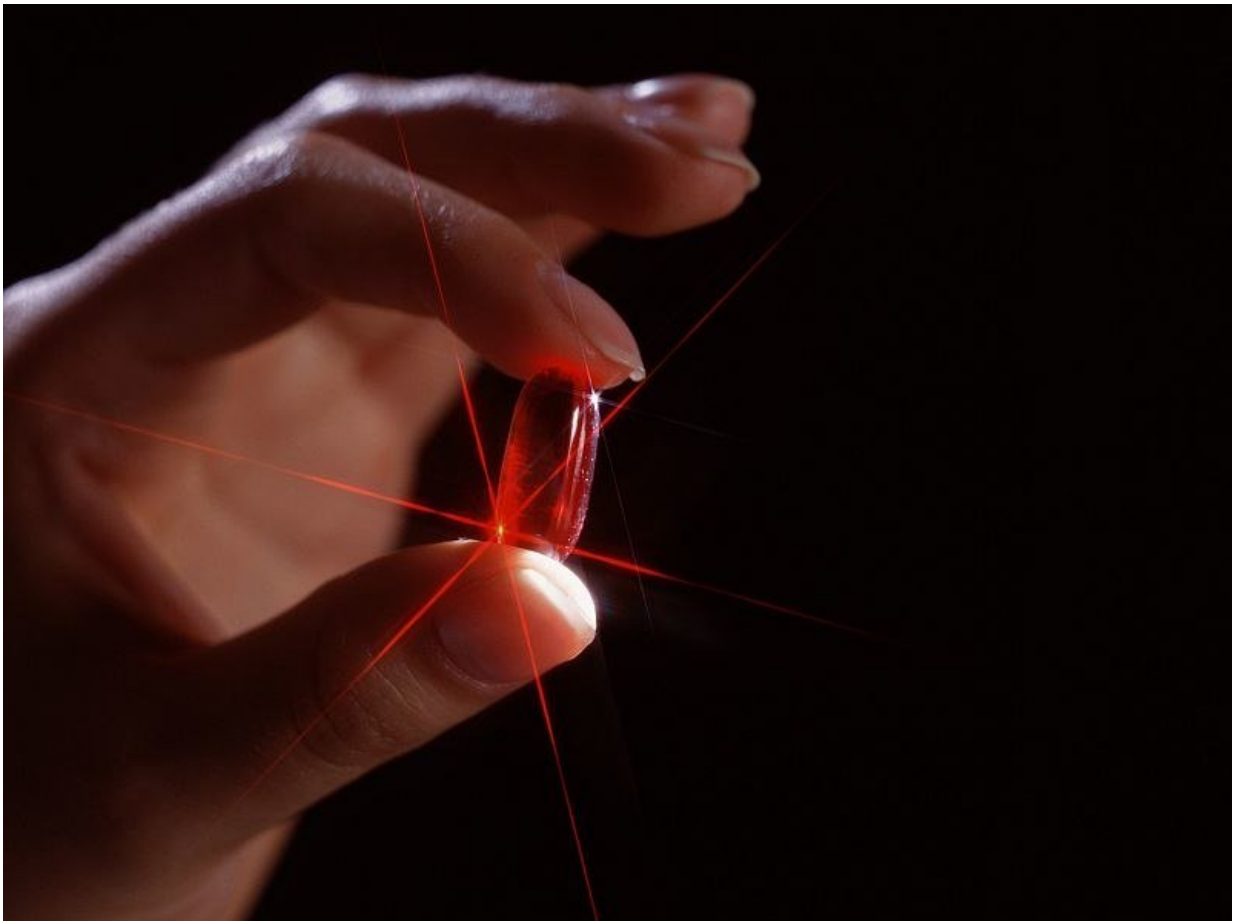


Microbiome intervention with niacin aids insulin sensitivity

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(HealthDay)—A targeted microbiome intervention, accomplished

through microencapsulated delayed-release niacin, beneficially affects insulin sensitivity in humans, according to a study published online Dec. 6 in *Diabetes Care*.

Daniela Fangmann, Ph.D., from the University of Kiel in Germany, and colleagues assessed the gut microbiome and niacin in more than 500 participants with different metabolic phenotypes.

The researchers found that reduced α -diversity and *Bacteroidetes* abundance in the microbiome of obese human subjects were associated with a low dietary [niacin](#) intake. In response, the researchers developed delayed-release microcapsules to deliver increasing amounts of nicotinic acid (NA) and nicotinamide (NAM) to the microbiome while preventing systemic resorption. In vivo studies showed that the gut-targeted delayed-release NA, but not NAM, produced a significant increase in the abundance of *Bacteroidetes*. These favorable microbiome changes were associated with an improvement of biomarkers for systemic [insulin sensitivity](#) and metabolic inflammation.

"Targeted [microbiome](#) intervention by delayed-release NA might represent a future therapeutic option for prediabetes and type 2 diabetes," the authors write.

One author disclosed financial ties to the pharmaceutical industry, and several are inventors on a patent describing controlled-release formulations for NA and NAM.

More information: [Abstract/Full Text \(subscription or payment may be required\)](#)

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