

## Are Health-Boosting Benefits Hiding in Some of Your Favorite Foods?

### Summary:

*Love yogurt, bread, wine, kimchi, and pickles? A new peer-reviewed paper supported in part by the California Dairy Research Foundation, reveals evidence that fermented foods, developed thousands of years ago for their ability to avoid contamination, may increase your sensitivity to insulin, lower your risk of developing type 2 diabetes, and decrease your overall risk of mortality*



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Bacteria and fungi are probably not the first ingredients that come to mind when thinking about healthy food. But not all microorganisms are bad for your health. In fact, including the right microorganisms in your diet can actually improve your health. And the good news is they may be hiding in some of your favorite foods.

This is the topic of a [new peer-reviewed paper](#) led by [Maria Marco, Ph.D.](#), University of California, Davis and [Robert Hutkins Ph.D.](#), University of Nebraska, together with an international team of researchers, including [California Dairy Research Foundation](#) Executive Director [Gonca Pasin, Ph.D.](#) The authors report on the numerous potential and known health benefits of consuming fermented foods. The paper developed out of discussions at the 2016 International Scientific Association of Probiotics and Prebiotics annual meeting to explain how these benefits—including weight maintenance, reduced risk of cardiovascular disease, and reduced risk of type 2 diabetes—are attributed to the actions of the microbes during the fermentation process.

“Fermented foods have regained popularity as part of Western diets that emphasize artisanal processes,” explain the authors. “One reason for this surge in interest is their health-promoting potential.”

What exactly are fermented foods? Yogurt, kefir, certain type of cheeses, kimchi, wine, beer, bread, olives, and others are commonly consumed fermented foods.

Fermentation is basically microbial carb-loading. When bacteria and yeasts are added to milk, fruit, or vegetables they break down the sugars into alcohols or organic acids. As they dine, they increase in numbers.

### Why does the fermentation process help people stay healthy?

Humans need healthy microbes for digestive health and to prevent the growth of harmful bacteria. Some fermented foods are chock full of microbes that are identical to or related to species that are well known for their probiotic

**You might eat fermented foods for their unique flavor and nutrient content, but you may also be stabilizing your weight or even reducing your risk of disease**

activity. Because of this, the authors suggest certain fermented foods containing living microbes could be especially beneficial for the intestinal health of populations, like Americans, who consume highly processed or sanitized food.

However, fermented foods are not simply probiotic versions of their starter foods. The acid and alcohol end products transform the food, and not just in taste and texture.

“The metabolic activity of microorganisms can change the nutritive and bioactive properties of food in a manner that has beneficial consequences for human health,” say the authors. “The microbes,” they explain, “provide additional properties beyond basic nutrition.”

Fermented dairy products provide a clear example of what the authors mean by “additional properties.” You might eat yogurt or drink kefir at breakfast because they taste good and contain a high amount of protein and calcium, but you are getting much more than just the benefits of protein and calcium; you may be stabilizing your weight or even reducing your risk of disease.

Several long-term prospective studies have demonstrated that consumption of fermented foods, including yogurt, fermented milk, and kimchi, can increase your sensitivity to insulin, lower your risk of developing type 2 diabetes, and decrease your overall risk of mortality. And, bioactive proteins isolated from fermented foods are being investigated for their anti-hypertensive, immuno-modulatory, satiety, and antioxidant effects.

Currently, there are no recommendations or national guidelines for consumption of fermented foods. More research is needed to understand the core properties and functions of the microbes and bioactive components, as well as the effects of their sum (that is, whole foods) on human health. But the evidence thus far suggests that fermented foods, developed thousands of years ago for their ability to avoid contamination, could be equally valuable to the modern human diet.

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About the [California Dairy Research Foundation \(CDRF\)](#): The [CDRF](#) is an independent non-profit organization that leads and delivers research and science-based programs towards a more innovative and sustainable California and U.S. dairy industry. For more information about the [CDRF](#) and the research it supports, visit <http://www.cdrf.org>.

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