

# Get Cultured on Fermented Dairy Foods

## What are Fermented Foods?

Fermented foods are made by extensive and controlled microbial growth. During fermentation, “starter cultures” of bacteria, yeast and/or molds convert nutrients like starch or sugar into an alcohol or acid. These live and active cultures can improve food safety and lengthen shelf life. Microbial growth can also enhance taste, texture, digestibility and may help improve nutritional quality. And while they’re topping the trends lists today, it’s estimated that humans have been eating fermented foods for over 10,000 years.<sup>1</sup>

## Are Fermented Foods Also Probiotics?

Fermented foods may or may not contain live cultures. Probiotics must meet the definition set forth by set forth by the World Health Organization: “Live microorganisms that, when administered in adequate amounts, confer a health benefit on the host.” Because many of the live microbes in fermented foods have not been tested for specific health benefits, they cannot be called probiotics.<sup>2</sup>



### Fermented Foods

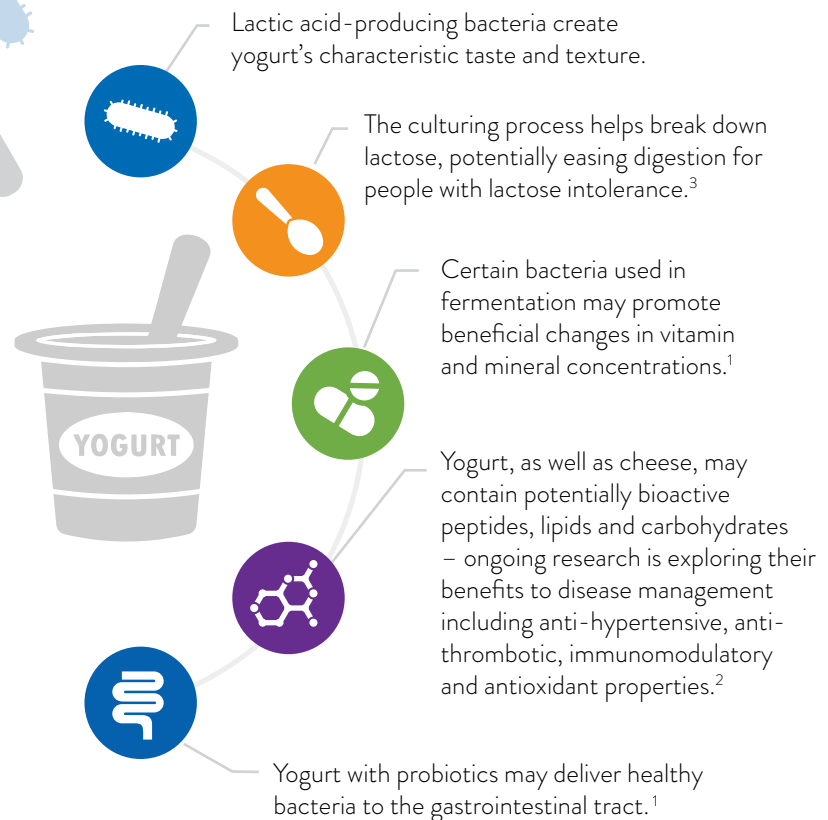
Examples: Natural cheese, tempeh, fresh kimchi, dill pickles, sauerkraut, canned sauerkraut, kombucha, most soy sauces and most wine and beer.



### Probiotic Foods

Examples: Yogurt that specifies on the ingredient list that it contains a specific probiotics strain (e.g., B. Bacterium 12); or yogurt containing the live and active cultures L. Bulgaricus and S. Thermophilus.

## The Power of Yogurt



# The Benefits of Fermented Dairy Foods

A strong and growing body of evidence demonstrates fermented dairy foods (i.e., natural cheese and yogurt) play an important role in health and reduced risk of disease, including:



**Digestion:** Fermented foods containing live cultures can add beneficial bacteria to the digestive tract and contribute to a healthier microbiota impacting digestion and gut barrier function.<sup>2,4</sup>



**Type 2 Diabetes:** Eating yogurt is associated with reduced risk of type 2 diabetes. Eating approximately 1/3 to 1/2 cup a day of yogurt was associated with a 14% reduction in type 2 diabetes risk.<sup>5,6</sup>



**Cardiovascular Disease:** Eating at least 5 servings of yogurt per week has been shown to help lower blood pressure, and studies show a positive relationship between eating yogurt and improved cardiovascular health.<sup>7,8</sup> Research also indicates no association between cheese consumption and cardiovascular disease risk despite its saturated fat content.<sup>9</sup>



**Inflammation:** The body of research indicates dairy foods like milk, cheese and yogurt are neutral to beneficial in reducing inflammation.<sup>10-12</sup>

## References:

1. Marco ML, Heeny D, Binda S, et al. Health benefits of fermented foods: microbiota and beyond. *Current Opinion in Biotechnology*. 2017;44:94-102.
2. Fermented Foods. (2020). Retrieved from: [www.yogurtinnutrition.com/tag/fermented-food](http://www.yogurtinnutrition.com/tag/fermented-food)
3. Savaiano DA. Lactose digestion from yogurt: mechanism and relevance. *Am J Clin Nutr*. 2014;99(5 Suppl):1251S-5S. doi:10.3945/ajcn.113.073023.
4. Pei R et al. Low-fat yogurt consumption reduces biomarkers of chronic inflammation and inhibits markers of endotoxin exposure in healthy premenopausal women: a randomised controlled trial. *Br J of Nutrition*. 2017;118:1043-51
5. Chen et al. Dairy consumption and risk of type 2 diabetes: 3 cohorts of US adults and an updated meta-analysis. *BMC Med*. 2014;92:215.
6. Gijbbers et al. Consumption of dairy foods and diabetes incidence: a dose-response meta-analysis of observational studies. *Am J Clin Nutr*. 2016;103(4):1111-24.
7. Buendia JR et al. Long-term yogurt consumption and risk of incident hypertension in adults. *J of Hypertension*. 2018;36(8):1671-79.
8. Buendia JR et al. Regular Yogurt Intake and Risk of Cardiovascular Disease Among Hypertensive Adults. *Am J Hypertension*. 2018;31(5): 557 – 65.
9. Chen GC, Wang Y, Tong X, Szeto IMY, Smit G, Li ZN, Qin LQ. Cheese consumption and risk of cardiovascular disease: a meta-analysis of prospective studies. *Eur J Nutr*. 2017;56(8):2565-2575 <https://link.springer.com/article/10.1007%2Fs00394-016-1292-z>
10. Nieman KM, Anderson BD, Cifelli CJ. Effects of Dairy Product and Dairy Protein Intake on Inflammation: A Systematic Review of the Literature. *J Am Coll Nutr*. 2020;1-12.
11. Labonte ME, Couture P, Richard C, Desroches S, Lamarche B. Impact of dairy products on biomarkers of inflammation: a systematic review of randomized controlled nutritional intervention studies in overweight and obese adults. *Am J Clin Nutr*. 2013;97(4):706-17. doi:10.3945/ajcn.112.052217.
12. Bordonni A, Danesi F, Dardevet D, Dupont D, Fernandez AS, Gille D, Nunes Dos Santos C, Pinto P, Re R, Remond D, Shahar DR, Vergeres G. Dairy products and inflammation: A review of the clinical evidence. *Crit Rev Food Sci Nutr*. 2017;57(12):2497-2525.

# Finding More Ways to Enjoy Fermented Dairy

Fermented dairy foods – like cheese and yogurt – are a delicious way to incorporate dairy foods into your day.



## Breakfast

- Add yogurt, kefir or buttermilk to your smoothies, granola or oatmeal (hint: perfect for overnight oats)
- Create a savory breakfast bowl and top it with plain yogurt and shredded cheese
- Make an omelet with your favorite cheese and veggie combo (bonus: top with a heaping spoon of Greek or Icelandic yogurt mixed with hot sauce and a sprinkle of cumin)
- Whip up some quick and easy egg, veggie and cheese muffins



## Lunch/Dinner

- Use plain yogurt with a squeeze of lemon in place of mayonnaise on your sandwiches
- Try a yogurt-based salad dressing or make your own ranch dressing using buttermilk
- Top salads with flavorful cheeses
- Sprinkle your favorite cheese combo on Mexican, Greek, Italian, Mediterranean, French and other dishes – from soups, pastas, beans/lentils, casseroles and more
- Cook yogurt-based soups or top your favorite soup, tacos, curries or chili with a Greek or Icelandic yogurt dollop
- Marinade meat, chicken and fish in a yogurt-based sauce



## Snacks

- Create your own dips using buttermilk or yogurt as the base
- Create yogurt parfaits by layering yogurt with whole-grain cereal, nuts, chia seeds & fresh fruit
- Make a cheese or yogurt mini-pizza using a whole grain pita or bun (hint: top the yogurt pizza with fruit, nuts and a little honey and top the cheese pizza with veggies)
- Make a fun mix-and-match cheese board with veggies, fruits, your favorite cheeses, nuts, jams and whole-grain crackers
- Cut up cubes of cheese and mix in a small snack-bowl with nuts and pretzels



National Dairy Council's (NDC) mission is to bring to life the dairy community's shared vision of a healthy, happy, sustainable world with science as our foundation. On behalf of America's dairy farmers, NDC strives to help people thrive across the lifespan through science-based information on dairy's contributions to nutrition, health and sustainable food systems. For more information visit [USDAiry.com](http://USDAiry.com)