



## Mid-Maryland Internal Medicine

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# Probiotics – Separating Facts from Marketing

Probiotics are everywhere these days. From tried-and-true yogurt to countless dietary supplements, pills and exotic-sounding foods that all claim to contain health-enriching bacteria, the number of probiotic products on store shelves has skyrocketed. But separating the manufacturers' claims from the truth can be challenging.

### A Brief Background

Most of us grew up learning that germs were bad and cleanliness was good. That's probably still pretty good advice, but scientists have learned in recent years that bacteria and other microorganisms on our skin, in our mouth and throughout our bodies play a significant role in our health, and possibly in our moods and mental acuity. A large part of this research has been focused on the human gut – the digestive tract. There are a couple of pounds of microorganisms in our guts, representing trillions of cells.

It has been known for a long time that our guts contain good bacteria. For example, many of us have experienced digestive issues after taking antibiotics, which kill the good germs along with the bad ones. For years, doctors have suggest eating yogurt after a course of antibiotics to re-establish a colony of good gut bacteria using the same *Lactobacillus* that ferments milk to create the yogurt in the first place. But recent research has shown that our gut microbiomes are extremely complex and that the bacteria in our guts may be responsible for much more of our physical and mental health than was ever previously thought.

### The Probiotics Market

Industry has seen this as a great market opportunity and jumped in enthusiastically. Dietary supplements containing bacteria aren't regulated by the Food and Drug Administration as drugs. Rather, they're classified as food, which means that manufacturer claims of health benefits are generally not supported by clinical research or approved by the FDA. The result: probiotic butter, bottled water, tea, granola, pills and more, all of which are generating huge revenues for the supplement companies.

It's important to us to ensure that our patients understand the current state of scientific knowledge before diving into the world of probiotics. And of course, if you have any questions after reading this article, please contact Dr. Pierce or Dr. Afrookteh.

### Key Points

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- There is evidence that *Lactobacillus*- based probiotics like yogurt and kefir are helpful in preventing diarrhea caused by infections and antibiotics and in improving symptoms of irritable bowel syndrome

- There is little to no evidence that probiotics improve the health of healthy people, but probiotics generally have a good safety record when used by healthy people
- There is not much strong scientific evidence to support specific uses of probiotics for specific health conditions
- If you have an underlying health condition and are considering probiotics, consult with Dr. Pierce or Dr. Afrookteh before taking any probiotics
- According to NIH's National Center for Complementary and Integrative Health, "We still don't know which probiotics are helpful and which are not. We also don't know how much of the probiotic people would have to take or who would most likely benefit from taking probiotics. Even for the conditions that have been studied the most, researchers are still working toward finding the answers to these questions."

## New to Kefir?



One probiotic that is generally considered safe and effective for control of diarrhea is Kefir, a fermented milk drink that is a little thicker in consistency than regular milk, but not as thick as yogurt. There are lots of brands and varieties available that combine the natural tangy flavor of kefir with fruit or other natural flavors.

Many Frederick supermarkets carry at least one brand of kefir, but you can find a large selection at the [Common Market](#), 5728 Buckeystown Pike.

## Why the Uncertainty?

In short, research takes a long time, and because there is so much money to be made by selling probiotics, manufacturing and marketing has moved much faster than the science. Consider the following (from [Probiotics Won't Fix All Your Health Problems](#)):

- "There's a black box in between giving the [probiotic] and the health effects," said David Mills, a professor of food science and technology at the University of California, Davis. "There are a variety of possible ways they might work . . . But none of it is nailed down. We are just realizing how complex the gut is. We still don't even know what an ideal gut bacterial mix would look like, if there is such a thing."
- "Probiotic" doesn't refer to a single thing. Rather, it generically refers to hundreds of microorganisms, many of which may be combined in any single product.
- To validate even simple claims, for example, that probiotics can prevent diarrhea caused by antibiotics, researchers would have to isolate test groups by type of antibiotic, type(s) of probiotics, and existing gut bacteria, which can vary from person to person.
- Probiotic manufacturers are making "food," not "drugs," so there is no oversight regarding the accuracy of claims about which particular blend of bacteria is in a given product, or whether there is variation within a single product from one batch to the next.

## What we Do Know

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- There's no question that good bacteria in our guts is essential to healthy functioning of our digestive systems. [According to the Harvard Medical School](#), there is a growing body of evidence supporting the use of probiotics to treat different kinds of gastrointestinal distress, including infectious diarrhea in children and antibiotic-associated diarrhea in adults. In fact, two large studies suggest that [probiotics can reduce diarrhea symptoms by up to 60%](#).
- The good news there is that the probiotic treatment for those conditions is *Lactobacillus*, which is found in yogurt and kefir. There is virtually no risk of harm by eating those foods, so there's generally no reason not to try them when you're suffering from gastric distress.
- Additional good news is that this most tried-and-true approach doesn't involve fancy, expensive probiotic supplements. Just go to the grocery store and pick up some yogurt or kefir.
- There is also evidence that probiotics can help people with Crohn's Disease and irritable bowel syndrome. And although conclusive evidence isn't quite in yet, because those disorders are so frustrating to treat there's generally no harm in trying some *Lactobacillus*-based probiotics to see if they make a difference.
- That's the upside. On the downside, it is generally felt that if you are healthy and feeling good, there is no reason to jump into an expensive long-term program that provides a wide-range of probiotics on a prescribed schedule.

### Listen Now

Some fascinating research is taking place that suggests a strong link between gut health, emotions and cognitive ability. If you have a few minutes, we suggest you listen to [Gut Feelings](#), a fun and interesting report on some of the current early findings in this area.



## The Bottom Line

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- There's generally no harm in trying a *Lactobacillus*-based probiotic like yogurt or kefir if you have infectious or antibiotic-related diarrhea. It may help considerably.
- If you are healthy and feeling good, most probiotics probably won't hurt, but they also probably won't make you feel any better.
- If you want to explore probiotics further or want to try a new probiotic product, discuss it with Dr. Afrookteh or Dr. Pierce before you take the plunge.

## Resources

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[NIH National Center for Complementary and Integrative Health](#)

Information from the US Government's lead agency responsible for investigating treatments that are not considered part of conventional medicine.

[Mayo Clinic](#)

The latest word from the Mayo Clinic about the current state of knowledge around probiotics.

[Harvard Medical School – The Health Benefits of Taking Probiotics](#)

The Harvard Health Publications Family Health Guide on the benefits of probiotics.

[National Public Radio – Do we Really Need Probiotics in our Coffee, Granola and Peanut Butter?](#)

A summary of food-industry trends and scientific knowledge from April, 2016.

[Clinical Guide to Probiotic Products](#)

A searchable guide that allows users to identify specific probiotics, by brand, to treat specific populations or conditions. Note that while the information on this site is based on (and contains links to) clinical trials, the site is primarily funded by industry. The information can also be accessed the free, downloadable apps on iTunes or Google Play.

[Gut Science Week at 538](#)

A well-researched series of articles exploring the relationship between the gut and our overall physical and mental health, with additional information about probiotic foods.