

## A Primer on Probiotics

Take a trip to the grocery store or pick up the latest health magazine, and you will see various foods identified as helping to promote digestive health. These products are likely to contain *probiotics*, meaning that “friendly bacteria” have been added. Probiotics are living microorganisms that help to maintain the positive balance of good bacteria in the intestines. Adding *specific* types of probiotics to foods can help to encourage *specific* health benefits.



bacteria in the body, including age-related factors, medications, stress, poor diet and disease. Over the past century, scientists have learned that eating or drinking certain friendly bacteria can help promote health; thus, the term *probiotics*, which means “for life,” was coined. Depending on the specific group, species and strain, probiotics may help to replenish and support the positive balance of good bacteria, help to maintain a healthy immune system or promote digestive health.

### Some Roles of Friendly Bacteria

While hearing the word “bacteria” may be off-putting to some, certain types of bacteria have a long history of use in food production. For thousands of years, bacteria have been used to make foods and beverages, such as fermented milk, cheese, wine and vinegar. These products are prized for their unique flavors and many culinary uses.

#### A Closer Look at Bacteria

Most bacteria in products with probiotics come from two groups, known as *Lactobacillus* or *Bifidobacterium*. Within each group, there are different species, and within each species, different strains or varieties. For example, *Lactobacillus rhamnosus* GG is a specific type of bacteria available in some yogurt products. Food manufacturers also may develop a marketing name for specific probiotic strains. For this probiotic, the commercial name is “LGG.”

Your body, too, is home to billions of tiny bacteria. Some of these bacteria are beneficial to health while others may be harmful. Many factors can upset the balance of good

### Getting to Know Related Terms

- *Prebiotic*: Although the name is similar, the term *prebiotic* is used to describe substances that help good bacteria thrive in the intestines. Simply put, prebiotics help stimulate the favorable growth or activity of probiotics. Although they work in different ways, both prebiotics and probiotics help keep the digestive system working smoothly and regularly.
- *Synbiotic*: This term describes a combination of prebiotics and probiotics in the same product.

### How Probiotics Promote Health

Probiotics added to foods follow the normal path through the digestive system to reach the intestines, where they thrive and combine with the billions of live microorganisms that already exist naturally to promote health. Because the health benefits of probiotics are “strain specific” (meaning that each strain of bacteria can have specific health-promoting effects in the body), it’s important to read the information on product labels and understand the benefits of probiotics in different products. Examples of different health-promoting effects

of probiotics that have been demonstrated by clinical research over the past 20 years include:

- Reducing the incidence of certain types of diarrhea, including traveler's diarrhea, rotavirus and diarrhea caused by antibiotics;
- Improving lactose digestion for people with lactose intolerance;
- Promoting digestive health by improving the positive balance of beneficial bacteria;
- Promoting regularity;
- Reducing growth of potentially harmful bacteria; and
- Strengthening the body's natural defenses by enhancing the immune system.

Although still in the very early stages of research, various probiotics are being studied to uncover and understand other possible health benefits. Some of these include reducing the development of allergies and eczema in children, decreasing the risk for stomach ulcers and helping patients cope with side effects of antibiotic therapy. Probiotics may also help in managing irritable bowel syndrome and inflammatory bowel disease, and preventing and treating infections of the urinary tract and female genital tract. They may also aid in preventing tooth decay and gum disease.

### **Where to Find Probiotics**

A growing number of foods contain probiotics. Examples of foods available with probiotics may include certain brands of yogurt, natural cheese snacks, fermented milk (kefir), juice, smoothies, cereal, granola bars and some infant/toddler formulas. Probiotics are also available as dietary supplements. Although the term *probiotic* on a food or supplement label does not have a regulatory definition established by the Food and Drug Administration, it is generally accepted as signaling the presence of live beneficial cultures in sufficient quantities to provide health benefits beyond basic nutrition.

On some yogurt products, you may see a "LAC" seal to indicate that the product contains *Live Active Cultures*. This means that a minimum level of starter bacteria was used to convert pasteurized milk to yogurt during fermentation—it is not intended to signal the presence of probiotics. Some yogurt products also contain additional probiotic bacteria that provide health benefits.

### **Shopping for Foods with Probiotics**

Many foods with added probiotic bacteria carry a statement on the label noting the benefit that the probiotic promotes, such as "helps to maintain digestive health." When you look closely at the label, you may also see names of specific bacteria that were added (one example: "With Bifidobacterium Lactis – Probiotic Culture"). There are many types of probiotic bacteria, each providing specific health benefits. These benefits vary, depending on both the type of probiotic bacteria used in the product and the amount eaten. Your physician or a registered dietitian can provide advice on foods that contain the specific types and levels of probiotic bacteria shown to produce a desired health benefit.

Even though probiotic bacteria naturally live in our digestive tract, they may need regular replenishing. To get the specific benefits of probiotic foods, daily intake is recommended. Also, be sure to eat foods with probiotics *before their expiration dates* and follow the manufacturer's guidelines for handling and storage.

### **Safety of Probiotics**

Probiotics are considered safe for most healthy people because they are bacteria that already are part of a normal digestive system. It's always wise to consult a physician or other healthcare professional if you have specific questions about using probiotics to obtain a health benefit. Scientists are studying the safety of probiotics for young children, older people and individuals with a compromised immune system. Initial side effects of some probiotics may include gas, bloating or diarrhea, but these generally subside as the body adjusts to intake of live cultures.

### *Probiotic Foods as Part of Healthy Eating*

Foods with probiotics offer several advantages. When probiotics are part of foods, such as yogurt, natural cheese snacks and other dairy products, this helps to buffer acids in the stomach and increases the chance that the bacteria will survive into the intestines. A probiotic food also offers other nutrients naturally found in that food product. For example, probiotic natural cheese supplies calcium and protein, and counts toward the recommended daily servings from the Milk Group. In addition, nutritious probiotic-containing foods can easily fit into daily food choices as part of an overall healthful eating plan.

### *Summary*

#### *Key Points to Consider:*

- Probiotics are live organisms, mostly bacteria, added to certain foods that help maintain the natural balance of beneficial bacteria in the body. They are also called “good bacteria” or “friendly bacteria.”
- The potential benefits of probiotics range from aiding in the digestion of lactose in milk products, to promoting digestive health, and contributing over time to improved health and reduced risk of disease.
- Health benefits obtained from probiotics are specific to the type and amount of bacteria ingested. More scientific knowledge is needed on probiotics, including more information about their safety for specific population groups and use in treating illness and disease.
- A growing variety of food products contain probiotics, including certain brands of yogurt and yogurt drinks, natural cheese, fermented milk (kefir), juices, smoothies, cereal, granola bars and certain infant/toddler formulas. To find foods with probiotics, look for a label statement such as “for digestive health.”
- Probiotic foods offer a way to enhance the benefits of a healthy diet.
- If you have specific questions about probiotics and how they fit into your lifestyle, check with a physician or registered dietitian. ■