



## Nutrition Nibbles

### Eating Like a Pro

#### (Probiotics, That Is!)

There's a lot of buzz around the drugstore aisles about probiotics and their relative, prebiotics. What's the difference between the two? Are they good for you? Since I recently received a question about probiotics from an avid **Nutrition Nibbles** reader, I thought I'd explore the topic in more detail for you.

Interestingly (or scarily, depending on how you look at it), your gut (intestines, especially the colon) is filled with many types of bacteria. Some of those bacteria are good for you, some of them are not. This is where probiotics and prebiotics come into play.

The word **probiotic** means "for life." As defined by the World Health Organization (WHO) and Food and Agriculture Organization (FAO), probiotics are "live microorganisms which when administered in adequate amounts confer a health benefit on the host." Typically probiotics provide health benefits in the form of gastrointestinal fitness, respiratory wellness, genitourinary health, and improved immunity. You may have heard probiotics referred to by their more scientific names of *Saccharomyces* (yeast), *Lactobacillus* (bacteria), and *Bifobacterium* (bacteria). Simply put, probiotics are good and friendly bacteria that edge out the bad bacteria in our body,

helping us to feel better.

**Prebiotics** work a little differently. They are "selectively fermented ingredients that allow specific changes, both in the composition and/or activity in the gastrointestinal microflora that confers benefits upon host well-being and health."<sup>1</sup> Huh? Prebiotics are fibers that nourish the friendly, "good" bacteria (probiotics) that live in your digestive system. Succinctly, prebiotics are food for the good bacteria in your body and primarily improve colon health. Inulin from chicory root and oligosaccharides are two common types of prebiotics.

Sometimes prebiotics and probiotics join forces to yield an even greater health benefit. They are referred to as **synbiotics** due to the synergistic effect they provide.

By scientific definition, prebiotics, probiotics, and synbiotics improve health. Who can benefit most? People who wipe out their body's good bacteria through antibiotic use and those whose immunity is weakened through frequent colds and flus may benefit from "biotics." Those who suffer from digestive woes like constipation or recurring yeast infections can also find some relief from pre/pro/synbiotics. Is there any downside though? Loading up

### College Corner: **60 SECOND HEALTH UPDATES**

I usually listen to the radio when I'm out on a power walk. I love catching the 60 second science updates that Scientific American broadcasts. I know it sounds nerdy but it keeps me abreast of recent studies that affect my nutrition counseling practice.

Here are a few recent topics you might find interesting. Click [here](#) to check these sound bites out.

**Anorexics Display Behaviors Common in Autism**

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**Confessional Tweeting May Help Dieters**

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## Eating Like a Pro cont...

on these organisms, whether in food or supplement form, may cause some intestinal distress in the form of gas and bloating. Whenever you increase the fiber and flora in your diet, you want to go slowly and drink plenty of water to minimize uncomfortable side effects. You'll experience health benefits for as long as you eat or take these biotics on a regular basis, meaning taking them today won't cure your constipation three weeks from now.

**I** always recommend ingesting your daily nutrients through food rather than supplements, and this holds true for prebiotics and probiotics. Food is generally the safer route, especially when compared to the supplement industry. While it may be easier to swallow a capsule or mix some powder with juice, you are missing out on the other vitamins and minerals that eating the whole food offers. In addition, the supplement industry is not well-regulated by the Food and Drug Administration (FDA). When it comes to probiotic supplements, the beneficial bacteria may not even be alive by the time you purchase it, let alone through the entirety of its shelf life. It is up to the consumer to make sure the prebiotic or probiotic supplement purchased has valid scientific research on humans to support its use. Dosage differs between the type of prebiotic or probiotic used. Some are potent in small quantities and some need to be ingested in larger amounts in order to be effective. Supplement users beware!

**H**ow can we get more prebiotics and probiotics on our plates and into our guts? The first key is recognizing where to find them and the second step is knowing how to incorporate them into your diet.

- **A** very well-known prebiotic is inulin; it is found in a wide variety of fruits, vegetables, and herbs including wheat, onions, bananas, leeks, artichokes, and asparagus. Two common oligosaccharides (also prebiotics) are fructo-oligosaccharides (FOS) and galacto-oligosaccharides (GOS). FOS can be found in Jerusalem artichokes (sunchokes), leeks, onions, asparagus, chicory and burdock roots. GOS are prevalent in soybeans, lentils, beans, and can be synthesized from the milk sugar, lactose.

- **O**ats, barley, and apples are not true prebiotics but can be fermented by our bodies to feed gut bacteria, thus acting like prebiotics.
- **P**robiotics and synbiotics are available in fermented foods, carrying the "live and active culture" seal, like yogurt and kefir. Because we heat treat many foods to protect the consumer from foodborne illness, bacteria (both the good and bad kinds) in our food supply are killed off. If your food doesn't contain the live and active culture seal, you can assume it does not contain prebiotics and synbiotics. Sauerkraut, kim chee, and miso are also fermented food sources of probiotics.

**Y**ou may be familiar with the middle ground between pre/probiotic containing foods and supplements, also known as functional foods. Activia yogurt, Yakult drinks, and LiveActive cottage cheese are all examples of functional foods or nutraceuticals. These foods (yogurt and cheese) have been given an additional function (health promotion) by adding new ingredients (pre or probiotics, like chicory root or lactobacillus). Fortunately, you do not even have to rely on these functional foods to get a daily dose of biotics in! Instead, try:

- Starting off your day with yogurt and old-fashioned oats.
- Snacking on an apple while sipping on some kefir.
- Whipping up a satisfying salad that includes asparagus, artichokes, and red onion.
- Enjoying a warm cup of miso soup on a cold afternoon.
- Making a "risotto" with barley, beans, onion, and dark greens. Serve with a side of roasted leeks.
- Eating a banana for dessert.

**B**oth prebiotics and probiotics are vital to gut health and work together to support intestinal wellbeing. Incorporating foods rich in pre and probiotics into your diet is a viable alternative to supplement use. Cheers to your gut and the good work it does!

**1** Gibson GR, Probert HM, Van Loo JAE, Roberfroid MB. Dietary modulation of the human colonic microbiota: Updating the concept of prebiotics. *Nutr Res Rev.* 2004;17:257-9.