



Sunfiber®

PREBIOTIC EFFECT OF SUNFIBER

By Derek Timm, Ph.D., RDN,
Technical Sales Director

EXECUTIVE SUMMARY

Sunfiber is a clinically proven prebiotic for maintaining digestive health and microflora balance. Sunfiber feeds the gut's beneficial bacteria, promoting a healthy gut microbiome which supports digestive health and overall wellness.* Sunfiber also supports regularity, helping food move through the gut at just the right pace, improving both occasional constipation and occasional diarrhea.*

Sunfiber is very well tolerated, promoting a healthy digestive balance without excess gas or bloating. The powder dissolves crystal clear in water, and can be added to most foods and beverages without changing their taste, aroma or texture. Sunfiber is the fiber that checks all the boxes for health benefits, tolerance and ease of use.

WHAT IS SUNFIBER?

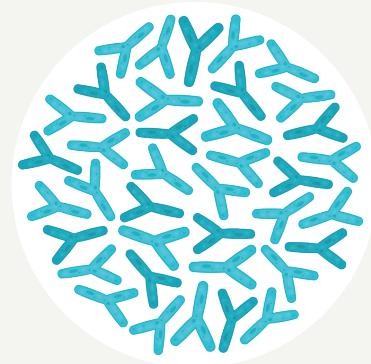
Sunfiber is a soluble dietary fiber made from guar beans. This powder dissolves crystal clear in water and can be added to most foods and beverages without changing their taste, aroma or texture. Sunfiber is non-GMO, certified organic, gluten free, low FODMAP and meets the FDA's definition of dietary fiber. Sunfiber is also gentle on your system. It supports digestive health without the excess gas, bloating and loose stools associated with some high-fiber foods and supplements. It's an easy way to increase prebiotic fiber in the diet.

WHAT IS A PREBIOTIC?

The term prebiotic is very popular today with both scientists and consumers alike. Simply put, prebiotic refers to fiber being fermented by good bacteria, also known as probiotics, promoting a health benefit. Many consider prebiotic fiber to be food for good bacteria.

The term prebiotic was first coined in 1995. Many changes and updates have been made to its definition over the years. The most up-to-date definition of prebiotic is "a selectively fermented ingredient that results in specific changes in the composition and/or activity of the gastrointestinal microbiota, thus conferring benefit(s) upon host health." (Gibson, 2017). This updated definition means benefits can also be derived by decreasing negative gut bacteria issues or promoting positive changes in the gut.

Over the last 25 years, many advances in the study have greatly expanded our knowledge and understanding of the gut microbiome. We now know that *Bifidobacteria* and *Lactobacillus* are two of the most commonly consumed probiotics associated with positive changes in the gut microbiome composition.



Bifidobacteria



Lactobacillus

WHAT IS THE GUT MICROBIOME AND WHAT DOES IT DO?



The gut microbiome is a complex ecosystem of somewhere between 100 to 400 bacteria species (probiotics) that live in the gut. These bacteria help

break down prebiotic fibers via fermentation in the colon for energy and to support their own growth.

This process is symbiotic in that the fermentation products – short chain fatty acids (SCFAs) acetate, propionate and butyrate – are beneficial for the body. The most important SCFA is butyrate because it is used by cells in the colon for energy, which promotes good health and barrier function. The amount of SCFAs produced depends on the type and amount of prebiotics consumed along with the composition of gut microbiome.

GAS AND THE MICROBIOME

Gases are another byproduct of bacterial fermentation. These gases are perfectly normal, but may cause undesirable side effects such as flatulence, bloating or stomach noise. Some prebiotics are rapidly fermented, which can cause an increase in the perception of gas, bloating and discomfort. Others are slowly fermented resulting in better gastrointestinal tolerance.

It's important to choose a prebiotic that maximizes benefits and minimizes negatives, such as gas production. Luckily, there is a prebiotic that promotes the good bacteria, produces high amounts of butyrate and has good tolerance. It's Sunfiber®. Sunfiber is slowly fermented which promotes a healthy gut without the excess gas or bloating.*



HOW MUCH PREBIOTIC FIBER SHOULD I CONSUME?

The current adequate intake for dietary fiber is 25 grams/day for women and 38 grams/day for men. The daily amount of Sunfiber that should be consumed by healthy people looking to meet the daily recommended fiber intake would be the difference between their fiber intake from food and that of the recommended fiber intake for men and women. The typical recommended single serving of Sunfiber is between 3 and 7 grams.

There is no daily recommended value for prebiotics; however, you should target a dose clinically shown to improve the gut microbiome. This amount will

vary based on the type of prebiotic you choose so you can do a little research yourself or ask your healthcare professional for a recommendation. The recommended dose for Sunfiber is at least 5 g per day to help promote the *Bifidobacteria* levels in your gut.

Sunfiber has been affirmed as GRAS (Generally Regarded as Safe) by a panel of experts at a level up to 60 grams per day.

PREBIOTIC BENEFITS OF SUNFIBER

The prebiotic effects of Sunfiber have been examined in five human clinical studies:

- A 1994 study provided volunteers with 21 g of Sunfiber per day spread out as 7 g servings 3 times a day for 2 weeks. The volunteers were healthy men who had not taken antibiotics prior to the study. Compared with baseline levels, both *Bifidobacteria* and *Lactobacillus* levels significantly increased after 2 weeks of Sunfiber consumption. This study also showed a decrease in the pH of the feces, which is an indirect measure of SCFA production.
- A second study examined the impact of 11 g of Sunfiber given twice per day for 3 weeks to constipated, yet otherwise healthy women. After 3 weeks the *Lactobacillus* levels significantly increased compared with the control period. In addition to increasing beneficial *Lactobacillus* levels, the participants reported significant constipation relief, an additional benefit of Sunfiber.
- Another study examined the impact of Sunfiber on 77 patients with small bowel intestinal overgrowth (SIBO) eradication. SIBO is a condition characterized by gas, bloating and discomfort due to high levels of bacteria fermenting food in the small intestine as a result of dysbiosis. This study divided SIBO patients into a group receiving the standard antibiotic treatment or the antibiotic plus 5 g of Sunfiber for 10 days. Eradication rates of SIBO in the antibiotic group alone were 62.1% whereas eradication rate was 87.1% in the Sunfiber plus antibiotic group. Although antibiotics are the first line of treatment for SIBO, Sunfiber plus

antibiotics showed increased efficacy indicating Sunfiber may be a useful adjunct therapy for SIBO (Funari, 2012).

- A 2015 study investigated the prebiotic benefits of Sunfiber, but at a lower dose than the earlier studies. In this experiment, healthy female volunteers consumed 6 g of Sunfiber each day for 2 weeks. Researchers compared the composition of their gut microbiome before and after Sunfiber supplementation. This study found Sunfiber caused a significantly increased *Bifidobacterium* levels as well as butyrate-producing bacteria (Ohashi, 2015). The *Bifidobacteria* levels even remained significantly elevated relative to baseline for 2 weeks after stopping Sunfiber, indicating some lasting benefits.
- A recently published randomized, double-blind, placebo-controlled study examined healthy adults with loose stools who received 5 g of Sunfiber over 12 weeks. Results showed significant increases in *Bifidobacterium* compared with the placebo group. Additionally, this study reported some normalization of stool form, which shows Sunfiber is not only a prebiotic fiber, but it aids with regularity as well (Yasukawa, 2019).

CONCLUSION

Sunfiber is a clinically proven prebiotic for maintaining digestive health and microflora balance. Sunfiber feeds the gut's beneficial bacteria, promoting a healthy gut microbiome which supports digestive health and overall wellness.* Sunfiber also supports regularity, helping food move through the gut at just the right pace, improving both occasional constipation and occasional diarrhea.*

Sunfiber is very well tolerated, promoting a healthy digestive balance without excess gas or bloating. The powder dissolves crystal clear in water, and can be added to most foods and beverages without changing their taste, aroma or texture. Sunfiber is the fiber that checks all the boxes for health benefits, tolerance and ease of use.

**These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.*

CONCLUSION

"It's clear that Sunfiber provides many benefits for overall wellness and digestive health to consumers looking to feel their best every day without issues sometimes associated with high fiber intakes (gas, bloating). I feel confident recommending it as a beneficial addition to eating habits that include fiber-rich foods."

– **Annette Maggi, MS, RDN, LD, FAND**

"Due to the amount of evidence supporting the benefit of Sunfiber on the gut microbiome, I am confident recommending it to my clients who are working to improve their digestive health and combat occasional diarrhea or constipation. It is an easy and enjoyable way to increase fiber in the diet without any negative effects, while consumers also work towards including more quantity and diversity of plants in their diet."

– **Erin Judge, RDN, IBS-Specialist Dietitian Nutritionist**

REFERENCES

1. Funari et al. Clinical trial: the combination of rifaximin with partially hydrolysed guar gum is more effective than rifaximin alone in eradicating small intestinal bacterial overgrowth. *Aliment Pharmacol Ther* 2010; 32: 1000-1006.
2. Gibson GR, Roberfroid MB. Dietary modulation of the human colonic microbiota: introducing the concept of prebiotics. *J Nutr* 1995;125(6):1401-12.
3. Gibson et al. Expert consensus document: The International Scientific Association for Probiotics and Prebiotics (ISAPP) consensus statement on the definition and scope of prebiotics. *Nat. Rev. Gastroenterol. Hepatol.* 2017; 14:491-502.
4. Ohashi et al. Consumption of partially hydrolyzed guar gum stimulates *Bifidobacteria* and butyrate-producing bacteria in the human large intestine. *Bene Micro*
5. Okubo et al. Effects of partially hydrolyzed guar gum intake on human intestinal microflora and its metabolism. *Biosci Biotech Biochem* 1994; 58:1364-1369.
6. Takahashi et al. Influence of partially hydrolyzed guar gum on constipation in women. *J Nutr Sci Vitaminol* 1994; 20: 251-259.
7. Yasukawa et al. Effect of Repeated Consumption of Partially Hydrolyzed Guar Gum on Fecal Characteristics and Gut Microbiota: A Randomized, Double-Blind, Placebo-Controlled, and Parallel-Group Clinical Trial. *Nutrients*. 2019 Sep 10;11(9).