

## **Diet for Those with Symptomatic Small Bowel Bacterial Overgrowth**

### **What is small bowel bacterial overgrowth (SBBO or SIBO for short)?**

We all have bacteria in our intestines, but some people have too much. These extra bacteria can cause problems. Good movement of food through the small bowel helps avoid this problem, and so does having normal amounts of stomach acid. So, people with slow bowel motility or who make too little gastric acid are at risk for bacterial overgrowth.

### **What are the symptoms?**

Symptoms include gas, abdominal pain, distention, bloating, fullness, diarrhea, nausea, and/or pain after eating foods that are high in sugars, like sodas, sweets and desserts, or high in fiber, such as pinto beans, kidney beans, bran cereals, etc.

### **How does what I eat make my symptoms worse?**

When there are too many bacteria high up in your intestine near your stomach, they get “first dibs” on the food that you eat – instead of you! The bacteria use your food for fuel, and they make gas in the process. This is what makes you uncomfortable.

Foods that do not contain carbohydrates or fiber do not usually cause problems. This includes meats (beef, pork, lamb, venison); poultry (chicken, turkey, duck); fish and shellfish; eggs; and butter, oils, and hard cheeses.

### **How to best use this diet:**

Look over the list of foods below and cut out the foods and drinks you eat a lot of. Start by at least cutting out concentrated sugars and sweets. If you feel a lot better, that may be all you need to do. Then add back a small amount of one food at a time if you want. You should wait 3 days before trying a second food again. If your symptoms come back, then that may be a food you need to just avoid.

### **Additional Information:**

Visit [www.GInutrition.virginia.edu](http://www.GInutrition.virginia.edu) and go to link to Nutritional Articles. Find the article: DiBaise JK. Small Intestinal Bacterial Overgrowth: Nutritional Consequences and Patients at Risk. *Practical Gastroenterology* 2008;(12):15.

KEEP EATING THESE FOODS:	CUT OUT THESE FOODS:
<b>Protein Foods (meat, fish, poultry)</b>	
<ul style="list-style-type: none"> <li>• Beef, pork, lamb, chicken, turkey, duck, fish, shellfish, eggs, milk</li> </ul>	<ul style="list-style-type: none"> <li>• All allowed!</li> </ul>
<b>Plant protein foods</b>	
<ul style="list-style-type: none"> <li>• Tofu, tempeh, unsweetened peanut butter, unsweetened almond butter, nuts and seeds (1oz or less per serving)</li> </ul>	<ul style="list-style-type: none"> <li>• Dried beans such as black, pinto, kidney, refried, Lima, lentils, etc.</li> <li>• Nuts and seeds in servings bigger than 1oz (a small handful)</li> <li>• Sweetened nut butters like Jiffy, etc.</li> </ul>
<b>Grains</b>	
<ul style="list-style-type: none"> <li>• Breads: sandwich, pita, rolls, biscuits, naan, bagels, English muffins, corn bread, tortillas, bread sticks</li> <li>• Starches: pasta, noodles, rice, bread stuffing</li> <li>• Unsweetened breakfast cereals: Cheerios, Corn Flakes, Total, Rice Crispies, Chex, Special K, Kix</li> <li>• Hot unsweetened cereals: oatmeal, Cream of Wheat/farina, cream of rice, grits</li> <li>• Breakfast breads: pancakes and waffles (without syrup—both regular and sugar free), plain, corn, and English muffins, rice cakes</li> <li>• Snack foods: crackers (saltines, club, soda, matzo), cheese nips, goldfish, potato chips</li> </ul>	<ul style="list-style-type: none"> <li>• High fiber cereals (any that contain 2 or more grams of fiber per serving): All-Bran, oatmeal, granola, any whole grain cereal</li> <li>• Cereals with dried fruits, coconut, nuts or seeds</li> <li>• Sweetened cereals and kids' cereals such as: Honey Nut Cheerios, Cocoa Puffs, Frosted Flakes, Fruit Loops, etc.</li> <li>• Bran, faro, barley, brown rice, wild rice, quinoa</li> <li>• Bran muffins, granola bars, fiber bars</li> </ul>
<b>Fruits</b>	
<ul style="list-style-type: none"> <li>• No more than ½ cup applesauce daily OR 1 <b>small</b> piece of fresh fruit daily.</li> <li>• Talk to your Registered Dietitian about whether you should cut fruit out altogether when starting this diet.</li> </ul>	<ul style="list-style-type: none"> <li>• All dried or candied fruits (raisins, dates, Craisins, figs, banana chips, mango, pineapple, prunes)</li> <li>• All fruit juices and fruit drinks</li> <li>• Blended smoothies with fruit such as Odwalla, Naked, or freshly prepared smoothies</li> <li>• All canned fruit in its own juice or syrup</li> </ul>
<b>Vegetables</b>	
<ul style="list-style-type: none"> <li>• Starchy vegetables (no more than ½ cup at a meal): white potato, butternut squash</li> <li>• Non-starchy vegetables (no more than ½ cup at a meal): green beans, carrots, spinach, kale &amp; other greens, tomato</li> </ul>	<ul style="list-style-type: none"> <li>• High fiber or sugar vegetables: artichokes, asparagus, beets, broccoli, Brussels sprouts, cabbage, cauliflower, corn, fennel, garlic, green peppers, leeks, okra, onions, peas, shallots, sweet potato, tomato paste</li> </ul>

<b>Dairy</b>	
<ul style="list-style-type: none"> <li>• Plain milk, plain yogurt, plain kefir, cottage cheese, hard cheeses, soft cheeses</li> </ul>	<ul style="list-style-type: none"> <li>• Sweetened milk drinks: chocolate milk, strawberry milk, Yoo-hoo, Ovaltine</li> <li>• Carnation Instant Breakfast or store brand equivalent</li> <li>• Hot cocoa such as Swiss Miss</li> <li>• Flavored yogurts such as Yoplait or similar, sweetened kefir</li> </ul>
<b>Beverages (nondairy)</b>	
<ul style="list-style-type: none"> <li>• Water!</li> <li>• Diet sodas</li> <li>• Unsweetened tea or tea sweetened with Splenda, Equal, Sweet N Low, or Stevia</li> </ul>	<ul style="list-style-type: none"> <li>• All fruit juices and fruit drinks like Kool-Aid or Gatorade (including G2)</li> <li>• Regular soda, sweet tea made with sugar</li> <li>• Blended smoothies with fruit such as Odwalla, Naked, or freshly prepared smoothies</li> <li>• Ensure, Boost, or store brand equivalents</li> <li>• Flavored (such as vanilla) soy or other cow's milk alternatives</li> <li>• Sweetened coffee drinks such as vanilla lattes or Starbucks Frappuccinos, etc.</li> <li>• Hot cocoa such as Swiss Miss</li> </ul>
<b>Sweets</b>	
<ul style="list-style-type: none"> <li>• Avoid all.</li> </ul>	<ul style="list-style-type: none"> <li>• Cakes, cookies, candies, pies, donuts, pastries, chocolate</li> <li>• Ice cream, sherbet, popsicles, Italian ice, frozen yogurt</li> <li>• Jell-O or gelatin desserts (regular and sugar free), Cool Whip</li> <li>• Trail mix (dried fruit, seeds, nuts, coconut, granola, chocolate, etc.)</li> </ul>
<b>Condiments and sweeteners</b>	
<ul style="list-style-type: none"> <li>• Mayonnaise, mustard, salad dressings that do not contain any of the ingredients to the right, oil, vinegar</li> <li>• Splenda, Equal, Sweet N Low, Stevia</li> </ul>	<ul style="list-style-type: none"> <li>• Jams and jellies (regular and sugar free)</li> <li>• Honey, agave, Karo syrup, molasses, brown rice syrup, granulated (white) sugar, brown sugar, maple syrup, pancake syrup (including sugar free and fruit flavored)</li> <li>• Ketchup made with high fructose corn syrup</li> <li>• Tomato paste</li> </ul>

**Other words that mean “sugar”**

**Check the ingredients list for these, especially in processed or packaged foods**

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|--|---|--|
| <ul style="list-style-type: none"> <li>• Avoid all.</li> </ul> | <ul style="list-style-type: none"> <li>• High fructose corn syrup</li> <li>• Crystalline fructose</li> <li>• Granulated sugar</li> <li>• Agave nectar</li> <li>• Brown sugar</li> </ul> | <ul style="list-style-type: none"> <li>• Brown rice syrup</li> <li>• Pure maple syrup</li> <li>• Corn syrup</li> <li>• Honey</li> <li>• Evaporated cane juice</li> </ul> |
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**Other words that mean “sugar alcohol”**

**Check the ingredients list for these, especially of diet or diabetic foods!**

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|--|---|---|
| <ul style="list-style-type: none"> <li>• Avoid all.</li> </ul> | <ul style="list-style-type: none"> <li>• Sorbitol</li> <li>• Isomalt</li> <li>• Lactitol</li> <li>• Maltitol</li> </ul> | <ul style="list-style-type: none"> <li>• Mannitol</li> <li>• Xylitol</li> <li>• Erythrytol</li> <li>• Lactatol</li> </ul> |
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**Avoid Medications or Supplements with Sugar or Sugar Alcohols**

- Liquid medications often have sugar alcohols for flavor, especially those for diabetic people. Check labels for any of the ingredients listed above: cough syrups, liquid Tylenol or ibuprofen, codeine.
- Lactulose—talk with your physician before restricting this—there are some patients who will need to keep taking this medication.
- Stop taking these Fiber supplements: Metamucil, Benefiber, Perdiem, Citrucel

**SAMPLE MENU**

Breakfast

- Cornflakes or Oatmeal with unsweetened milk alternative (soy, almond, rice, etc)
- Coffee or tea with or without an allowed artificial sweetener and/or unsweetened milk alternative
- Turkey sausage patty
- Small banana

Lunch

- Ham sandwich on wheat bread with mayonnaise and pickles
- ½ cup baby carrots with ranch dressing made without high fructose corn syrup
- Handful of potato chips

Dinner

- 4-6 oz of poultry, lean meat, or fish
- ½-¾ cup white rice or pasta
- ½ cup green beans

Snack

- Plain rice cake with unsweetened nut butter with a glass of water or unsweetened tea