



# SIBO/SIFO Protocol

## Overview

Small intestinal bacterial overgrowth (SIBO) is defined as the overgrowth of bacteria in the small intestine. Initially thought to affect only a small number of people, it is now apparent that SIBO is far more common than previously realized.

Patients with small intestinal dysbiosis vary in presentation, from mildly symptomatic to suffering from chronic constipation, diarrhea, malabsorption, and weight loss. Prevalent symptoms – all representing upper gut dysbiosis – include unexplained and persistent bloating, distention, gas, abdominal pain with cramping sensation, and nausea.

Furthermore, SIBO can lead to or occur alongside small intestinal fungal overgrowth (SIFO). Dr. Satish Rao evaluated 134 patients using duodenal aspirate and found that 30% had SIBO, 25% had SIFO, and 45% had a combination of both.<sup>1</sup> Based on these numbers, 70% of patients have a fungal component – making it important to include therapeutics that address fungal as well as bacterial overgrowth.

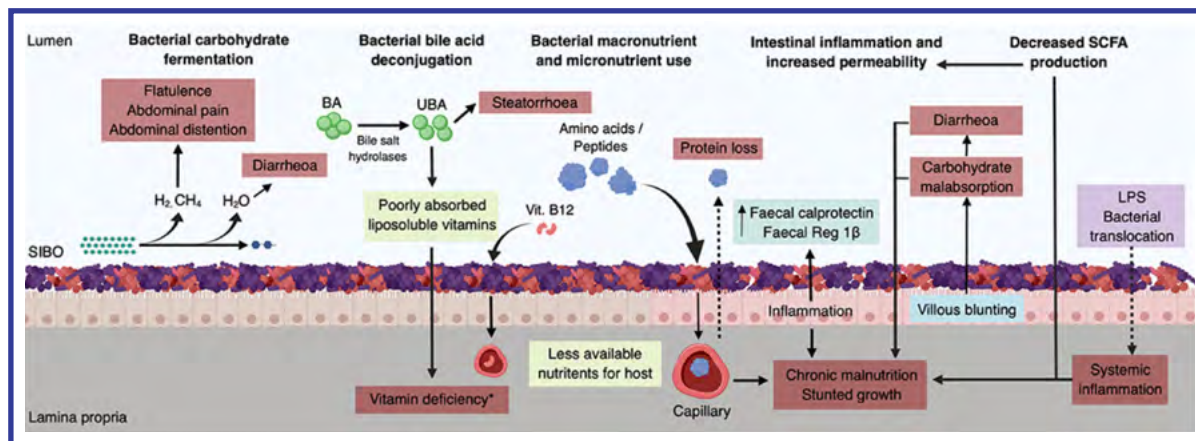
## Symptoms

- **Brain fog**
- Fatigue
- Low libido
- **Thrush**
- GI symptoms: nausea, indigestion, gas, bloating, cramping, constipation, diarrhea, IBS
- **Recurrent vaginal yeast infections**
- **Rectal itching**
- Recurrent bladder infections
- Thyroid dysfunction
- Allergies
- **Interstitial cystitis**
- **Chemical sensitivities**
- **Alcohol intolerance**
- Food sensitivities
- **Ear congestion**
- Poor immune function
- **Eczema, skin rashes**
- Psoriasis
- **Toenail fungus**
- **Carbohydrate and sugar cravings**
- Headaches
- Sleep disturbance

\*For bolded symptoms, SIFO is likely copresenting

<sup>1</sup><https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6955189/pdf/jnm-26-016.pdf>

## Mechanisms Through Which SIBO Affects the Host



**Figure 1.** Mechanisms through which SIBO affects the host. The dotted arrows indicate increased intestinal permeability. Includes vitamin A, D, E, and vitamin B12. Vitamin K is synthesised by the gut microbiota, and thus its deficiency in this context is very unlikely. BA, bile acids; UBA, unconjugated bile acids; LPS, liposaccharides.<sup>2</sup>

## Testing and Diagnosis

The standard method for diagnosing SIBO is breath testing evaluating hydrogen, methane and/or hydrogen sulfide gasses, using either glucose or lactulose.<sup>3</sup> However, without testing, clinical diagnosis and empirical treatment can be pursued with good outcomes for many patients.

## Risk Factors for SIBO/SIFO

- Adhesions from previous abdominal surgery
- Altered bile flow/cholecystectomy
- Celiac disease
- Crohn's disease
- Diabetes
- Diverticulosis of the small intestine
- History of eating disorders
- Hypothyroidism
- Low stomach acid
- Lyme disease
- Migrating motor complex dysfunction
- Food poisoning

<sup>2</sup> <https://doi.org/10.3389/fped.2019.00363>

<sup>3</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6955189/pdf/jnm-26-016.pdf>

## Clinical Pearl #1: Don't Forget the Mouth!

An often overlooked area when addressing SIBO is the oral microbiome. In the mouth, there is a complex interplay between microorganisms (bacteria, archaea, viruses, fungus, and protozoans), the immune system, and various habitats in the body. A flourishing microbial community is essential for both oral and systemic health. *Candida*, bacteria, and other microbes are commonly overgrown in the mouth, leading to an overgrowth in the gastrointestinal tract (SIFO). One study illustrating the relationship between oral and gut health showed that brushing teeth more frequently reduced levels of *Candida* in the stool! By balancing the gut microbiome and overlooking the oral microbiome, patients can struggle with recurrent flares. Both microbiomes must be addressed when addressing SIBO.

## Clinical Pearl #2: Identify Food Intolerances

SIBO and food intolerances have many overlapping symptoms, such as bloating, diarrhea, and postprandial fullness. Up to 20% of the adult population suffers from a food intolerance, the most well-known of which are histamine and lactose. Dysbiosis of any kind, including SIBO/SIFO, damages the intestinal epithelial lining, affecting the breakdown of food molecules, which then irritates the GI tract. The most common food intolerances are histamine, dairy, gluten, food coloring, preservatives, sugar alcohols, sulfites, and fructose. Food tolerances can be identified by elimination and symptom tracking. Often, after SIBO/SIFO have been resolved, food intolerances will improve as well, and these foods can be reintroduced.

See our [Histamine Protocol Sheet](#) for more information.

## Clinical Pearl #3: Lyme and Mold

When your patient has relapsing and remitting SIBO or sees little clinical improvement relative to what you'd expect – think chronic Lyme disease or mold illness. Lyme and mold cause a significant slowing of the migrating motor complex, and may result in SIBO and poorer outcomes. If Lyme and mold are not addressed, SIBO may continue to relapse.

See our [Lyme Protocol Sheet](#) for more information.

## Clinical Pearl #4: Migrating Motor Complex

It is important to consider the migrating motor complex (MMC) when addressing SIBO/SIFO. The MMC moves bacteria down into the large intestine between meals and at night during sleep, clearing them from the small intestines. This coordinated, mechanical, sweeping action can become deficient and contribute to SIBO/SIFO development. Ensuring 3-5 hours between meals and using prokinetic (motility promoting) agents (pharmaceutical or natural) is recommended.

## Clinical Pearl #5: Consider Biofilms

Biofilms are communities of bacteria embedded in an extracellular matrix, making them resistant to eradication. They are responsible for most chronic and recurrent infections and contribute to toxic load and inflammatory burden. They can be found almost anywhere in the body, including the mouth and gut, and are often involved in SIBO and SIFO.

See our [Biofilms Protocol Sheet](#) for more information.

## Lifestyle Recommendations

- Practice deep breathing before meals. This activates the parasympathetic nervous system, signaling the body to prepare to digest foods and absorb nutrients.
- Chew food thoroughly. Undigested foods contribute to SIBO. Eat smaller meals.
- Evaluate lifestyle habits. Smoking, alcohol, simple carbohydrates, and sugar all promote a SIBO-rich environment.
- Opt for a positive mindset. Bring a perspective of healing into daily practice!



## Therapeutic Plan Suggestions

SIBO/SIFO Support		
CORE PROTOCOL		
Biocidin® Liquid or Capsules	Titrate to 15 drops 2x/day	Titrate to 2 capsules 2x/day
G.I. Detox®+	2 capsules at bedtime. 1 hour away from food, supplements, and medications. Temporarily increase dose to 2 capsules 2-3x/day if <a href="#">Herxheimer reaction</a> observed/worsens.	
Olivirex®	Titrate to 2 capsules 2x/day (including for methane-dominant SIBO, SIFO, or persistent cases)	
ADDITIONAL SUPPORT		
Proflora™ 4R	1 capsule any time	
Biotonic®	20 drops 2x/day	
G.I. InnerCalm®	1 stick pack mixed in water, 1-2 times daily, taken any time	
Dentalcidin®	2x/day	
Dentalcidin® LS	2 pumps 2x/day	
Dentalflora®	Dissolve 1 tablet in mouth daily at bedtime, at least 30 minutes away from other oral care, food, or drinks	
Treatment period can vary between 8-12 weeks depending on severity.		

## Additional Therapeutics/Supplements

<b>Motility support</b>	Magnesium, Bitters, Triphala, Iberogast, Ginger
<b>Liver support</b>	Dandelion, Gentian, Burdock, Chelidonium, Schisandra
<b>Nutrient support</b>	Vitamins A, D, E, K, B's, Iron, Zinc

### Questions?

For clinical questions, email [clinical@biocidin.com](mailto:clinical@biocidin.com) or call 800-775-4140, x3.

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

