When your gut bacteria move house: Understanding SIBO

Small Intestinal Bacterial Overgrowth (SIBO) is a condition increasingly recognised as a root cause of chronic digestive issues. If you have struggled with persistent bloating, flatulence, or abdominal pain that just won't go away, SIBO might be the missing piece of your health puzzle.

Although the term sounds complex, the concept is quite straightforward. Let's take a closer look at what SIBO is, why it occurs, and what you can do about it.

What exactly is SIBO?

Your digestive tract is home to trillions of bacteria, a healthy community known as your **microbiome**. The majority of this microbial population should reside in your **large intestine** (colon). Your **small intestine** is designed to have only a much smaller, sparse population of microorganisms-this is primarily where your body digests and absorbs nutrients.

SIBO occurs when bacteria from the large intestine begin to grow excessively in the small intestine. It's like having a crowded, noisy intersection in the middle of a quiet motorway - it creates traffic jams and a lot of unwanted by-products!

These excess bacteria feast on undigested food (especially carbohydrates) passing through the small intestine, leading to a fermentation process that produces large amounts of gas-mainly **hydrogen** and/or **methane**.

Key Symptoms: Is it SIBO or just IBS?

The symptoms of SIBO often overlap with other gastrointestinal disorders, particularly Irritable Bowel Syndrome (**IBS**). In fact, research suggests that a significant percentage of people diagnosed with IBS may actually have SIBO.

Common SIBO Symptoms	Potential Complications
Severe bloating and abdominal distension: Often gets worse throughout the day, especially after meals.	**Nutrient deficiencies:** Bacteria consume essential nutrients like **Vitamin B12** and iron, which can lead to anaemia or neurological symptoms.
Excessive flatulence: Belching or gas.	**Malabsorption:** Impaired absorption of fats and vitamins, sometimes resulting in oily stools (**steatorrhoea**).
Abdominal pain or cramping	**Unintentional weight loss**
Altered bowel habits: Chronic diarrhoea, chronic constipation or alternating between both. (Methane-producing SIBO, now sometimes called **IMO** - Intestinal Methanogen Overgrowth - is strongly associated with constipation.)	**Fatigue and "brain fog"**

If you have been told you have IBS but treatments haven't helped, it is worth investigating SIBO with your healthcare professional.

What causes the bacteria to move? The root cause

SIBO is not a primary disease; it is a symptom of an underlying problem that has compromised the small intestine's natural "cleaning" mechanisms. The body has several ingenious ways to keep the small intestine clean, and SIBO occurs when one or more of these fail:

1. **Reduced gut motility ("The Cleansing Wave"):** The **Migrating Motor Complex (MMC)** is a wave of electrical activity that sweeps the small intestine clean of food debris and bacteria between meals. If this process is sluggish (often due to food poisoning, stress, or certain conditions), bacteria can stagnate and multiply. **This is considered one of the most common underlying causes.**
2. **Low stomach acid:** Stomach acid is a natural barrier that kills incoming bacteria. Medications that reduce stomach acid (such as PPIs) or low natural production can increase the risk of bacterial survival in the small intestine.
3. **Structural or anatomical issues:** Surgery (such as certain bariatric procedures) or conditions like Crohn's disease or abdominal adhesions can create physical "pockets" or areas where flow is restricted, allowing bacteria to establish themselves.
4. **Underlying medical conditions:** Diabetes, coeliac disease, and hypothyroidism can all affect gut motility and nerve function, creating an environment predisposed to SIBO.

Diagnosis and Treatment: Back on track

Diagnosis

The most common and non-invasive test for SIBO is the **Hydrogen/Methane Breath Test**. You drink a specific sugar solution (usually lactulose or glucose), and your exhaled air is tested at regular intervals. A significant, early rise in hydrogen or methane gas indicates that bacteria in your small intestine are fermenting the sugar, confirming the overgrowth.

Treatment: A two-step approach

Successful SIBO treatment involves two main steps:

1. **Eradication of the Overgrowth:**
   - **Antibiotics:** A short course of targeted antibiotics (such as Rifaximin) is the standard medical treatment to kill the excess bacteria.
   - **Herbal remedies:** Some practitioners use specific herbal protocols as an alternative to or alongside prescription antibiotics.
2. **Addressing the Root Cause and Preventing Relapse:**
   - **Dietary support:** A short-term, symptom-relief diet, such as the **low-FODMAP diet** or the **Specific Carbohydrate Diet (SCD)**, can starve the overgrowing bacteria. A qualified nutritionist or dietitian is essential for handling this.
   - **Prokinetics:** Medications or natural supplements used to help restore and strengthen the Migrating Motor Complex (MMC) to prevent bacteria from building up again.
   - **Lifestyle changes:** Stress management, good sleep, and mindful eating habits (such as **leaving 4-5 hours between meals** and avoiding late-night snacking) are crucial to allow the MMC to work.

A Final Note

If SIBO is suspected, it is vital to work with a skilled doctor or gastroenterologist who can correctly diagnose the condition and identify the **underlying cause**. While you can manage symptoms with diet, it is only by addressing the root problem that you can hope for long-term relief and prevent the common issue of relapse.

Reference List: Small Intestinal Bacterial Overgrowth (SIBO)

1. Definition, Overlap with IBS and Pathophysiology

1. **Definition, Etiology and Overlap of SIBO with Irritable Bowel Syndrome (IBS):**
   - **Source:** Rezaie, A., Pimentel, M., & Rao, S. S. C. (2017). How to Test and Treat Small Intestinal Bacterial Overgrowth: An Evidence-Based Approach. *Current Gastroenterology Reports*, 19(4), 18.
   - **Link:** https://pubmed.ncbi.nlm.nih.gov/28364186/
   - **Supports:** The definition of SIBO, that it is an overgrowth in the small intestine, and that a significant percentage of IBS patients may have SIBO.

2. **The Role of the Migrating Motor Complex (MMC) as a Preventive Mechanism:**
   - **Source:** Pimentel, M., Lin, H. C., & Rezaie, A. (2020). The role of the migrating motor complex in small intestinal bacterial overgrowth. *Neurogastroenterology and Motility*, 32(11), e13953.
   - **Link:** https://pubmed.ncbi.nlm.nih.gov/32770857/
   - **Supports:** The claim that reduced gut motility, particularly dysfunction of the MMC ("the cleansing wave"), is a primary cause of SIBO.
3. **Methane-producing Overgrowth (IMO) and the Connection to Constipation:**
   - **Source:** Triantafyllou, K., & Chang, C. (2021). Is Intestinal Methanogen Overgrowth Associated With Constipation, Diarrhea, or Both?. *American Journal of Gastroenterology*, 116(9), 1797-1799.
   - **Link:** https://pubmed.ncbi.nlm.nih.gov/34460596/
   - **Supports:** The new understanding that methane-producing microorganisms (now often called IMO) are strongly associated with constipation, in contrast to hydrogen-producing SIBO, which often causes diarrhoea.

2. Diagnostics and Treatment

4. **Hydrogen/Methane Breath Test as the Standard Diagnostic Tool:**
   - **Source:** Ghoshal, U. C., & Riaz, A. (2020). Hydrogen breath tests in the diagnosis of small intestinal bacterial overgrowth. *Journal of Gastroenterology and Hepatology*, 35(3), 392-399.
   - **Link:** https://pubmed.ncbi.nlm.nih.gov/31889422/
   - **Supports:** The use of the Hydrogen/Methane Breath Test with sugar solution (lactulose/glucose) as the primary non-invasive test to diagnose SIBO.
5. **Rifaximin (Antibiotic) as First-Line Choice in the Treatment of SIBO:**
   - **Source:** Shah, S. C., & Ringel, Y. (2018). Small Intestinal Bacterial Overgrowth (SIBO): Clinical Features and Therapeutic Management. *Clinical and Translational Gastroenterology*, 9(5), 159.
   - **Link:** https://pubmed.ncbi.nlm.nih.gov/29720516/
   - **Supports:** The use of **Rifaximin** as the targeted antibiotic treatment to eradicate bacterial overgrowth.

6. **The Role of the Low-FODMAP Diet in Symptom Relief and SIBO Management:**
   - **Source:** Rao, S. S., & Bhagatwala, T. (2019). Small Intestinal Bacterial Overgrowth: Clinical Features and Therapeutic Management. *Clinical and Translational Gastroenterology*, 10(9), e00078.
   - **Link:** https://pubmed.ncbi.nlm.nih.gov/31518349/
   - **Supports:** Dietary strategies, including the Low-FODMAP diet, as a symptom-relieving element in the overall SIBO treatment plan.

https://www.mayoclinic.org/diseases-conditions/small-intestinal-bacterial-overgrowth/symptoms-causes/syc-20370168

See also

Low-FODMAP diet · Bile acid malabsorption · Inflammatory bowel disease

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See also

Bloating