

SIBO Overview

What is SIBO?

SIBO (Small Intestinal Bacterial Overgrowth) is a condition where excessive bacteria colonise the small intestine — an area that should have relatively few bacteria compared to the large intestine. These misplaced bacteria ferment food that passes through, producing gases (hydrogen, methane, hydrogen sulfide) and inflammatory byproducts that cause a cascade of symptoms throughout the body.

Symptoms

Direct gut symptoms:

- Constant bloating — even from water
- Reflux / GERD
- Gas and abdominal discomfort
- Irregular bowel movements

Systemic symptoms (caused by the gut-lung axis and systemic inflammation):

- Post-nasal drip — SIBO triggers systemic immune responses including inflammatory cytokines that circulate through the body, causing inflammation that affects nasal passages and sinuses, leading to increased mucus production
- Tinnitus — from chronic mucus buildup in the head and eustachian tubes
- Inflammatory reactions to sugar — bacteria ferment sugars rapidly, producing inflammatory byproducts that enter the bloodstream and cause peripheral inflammation (e.g. itchy, inflamed legs and ankles)
- Fatigue and brain fog
- Skin conditions (acne, rashes, hives)

The reflux-mucus feedback loop: Acid reflux can cause post-nasal drip by irritating the throat, while chronic throat clearing from post-nasal drip worsens reflux, creating a self-reinforcing cycle. The bloating, reflux, post-nasal drip, and tinnitus are all interconnected, not separate issues.

Why Antibiotics Alone Fail

Standard pharmaceutical antibiotics (Rifaximin, Neomycin) can reduce bacterial load but have a ~67% relapse rate — meaning two out of three people end up right back where they started. One study found that up to 44% of patients experience SIBO recurrence within 9 months of completing antibiotics.

The reason: antibiotics address the overgrowth but not the underlying cause — impaired gut motility.

The Migrating Motor Complex (MMC)

The MMC is the small intestine's natural cleansing wave, responsible for sweeping bacteria and food debris out of the small intestine and into the colon between meals. It only activates during fasting — between meals — roughly every 90-120 minutes. If the MMC isn't functioning properly, even successful SIBO treatment will result in relapse.

Factors that impair MMC:

- Stress
- Sluggish thyroid
- Irregular eating patterns / snacking
- Post-infectious autoimmune nerve damage (e.g. food poisoning damaging the vagus nerve)
- Bacteria/immune imbalances
- Certain medications

Meal spacing rules for MMC support:

- Minimum 4-5 hours between meals
- No snacking between meals
- 12+ hours overnight fast
- No eating 2 hours before bed
- This allows the MMC to activate between meals and sweep bacteria out

Prokinetics are substances that stimulate the MMC. They are not laxatives — laxatives work on the colon and do not stimulate the MMC. Prokinetics primarily work on the oesophagus, stomach, and small intestine. Prokinetic support is critical for preventing SIBO relapse and should be maintained throughout treatment and potentially beyond.

How SIBO Develops

SIBO can develop from anything that slows gut motility or disrupts the natural bacterial balance:

- Constipation (from any cause) — when things slow down and food spends more time in the intestines, bacteria have more time to ferment and multiply
- Post-infectious IBS — food poisoning can damage the nerves that control the MMC
- Low stomach acid — stomach acid is a natural barrier against bacteria entering the small intestine
- Structural issues — adhesions, strictures, or anatomical variations
- Medications — PPIs (proton pump inhibitors), opioids, and others that slow motility
- Dietary factors — very low fibre diets can reduce bowel movement frequency, allowing bacterial overgrowth

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