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What is small intestinal bacterial overgrowth (SIBO)?

SIBO (small intestinal bacterial overgrowth) is a common gut condition that's often confused with irritable bowel syndrome (IBS). What are the symptoms of SIBO and how is it treated?

What is SIBO?

Small intestinal bacterial overgrowth (SIBO) is thought to affect up to one in seven of us¹, yet it remains a poorly understood condition of the gut that is often confused with [irritable bowel syndrome \(IBS\)](#).

"SIBO is the presence of excessive numbers of bacteria in the small bowel (small intestine), causing gastrointestinal symptoms that can occur if the bowel is slow to empty or if there is an obstruction," explains [Dr Hana Patel](#), private GP, and mental health coach.

"These bacteria, called coliforms, are typically found in the colon. They break down carbohydrates which in turn produces an excess of gas."

What causes SIBO?

This overgrowth of bacteria in the bowel happens as a direct result of food and other waste products moving through the digestive tract at a slower rate than normal.

Usually, this is a consequence of surgery or a particular disease damaging the tubes and organs involved in digestion and their immunity from toxins. The result is that the digestive system becomes the perfect breeding ground for bacteria.

Several risk factors have been identified for SIBO:

- Bowel surgery such as small bowel resection.
- Stomach (abdominal) surgery – such as gastric bypass.
- Inflammatory diseases of the bowel – such as IBS and [diverticulosis](#).
- [Diabetes](#) – a problem with the way our body metabolises sugar that can cause inflammation in the gut.
- Connective tissue disorders – such as [fibromyalgia](#) and [rheumatoid arthritis](#).
- Drugs – such as anti-diarrhoea agents, [narcotic painkillers](#), and [proton pump inhibitors](#) taken to reduce stomach acid.

However, sometimes SIBO occurs in healthy people with no disease, surgery, or other circumstances that might explain why their digestive system isn't functioning properly.

What are the symptoms of SIBO?

The symptoms of SIBO can range from the uncomfortable and unpleasant, to longer-term serious health concerns².

Patel describes some of the common symptoms that may come and go:

- [Bloating](#).
- [Diarrhoea](#).
- [Stomach \(abdominal\) pain](#).
- [Gas \(flatulence\)](#).
- [Nausea](#).

Severe symptoms of SIBO include:

- [Weight loss](#).
- Malabsorption (difficulty absorbing nutrients) and resultant nutritional deficiencies.
- [Osteoporosis \(a condition that weakens the bones\)](#).

SIBO is a relapsing condition, meaning that symptoms can disappear for periods of time. These can range from days to months and even years at a time.

5 Common SIBO symptom FAQs

Can SIBO cause dehydration?

With SIBO, the build-up of bacteria in your small intestine interferes with the absorption of nutrients and minerals. This can cause **dehydration** and you may experience a dry mouth, so it's important to drink lots of water throughout the day.

Can SIBO cause food intolerances?

Yes, in fact, SIBO is one of the most common reasons for having **food intolerances**. This is because SIBO damages the cells in your intestinal wall, allowing more bacteria, food particles, and toxins to pass into your bloodstream.

This then triggers your immune system to attack these food particles, resulting in food sensitivity symptoms such as stomach pain, gas, bloating, diarrhoea, and skin rashes. Common food intolerances caused by SIBO include reactions to dairy, eggs, wheat, gluten, corn, and soy³.

Does SIBO cause bad breath?

Yes, this can be true for some people. The extra bacteria break down food in your gut, producing the gases hydrogen and methane. This is why people with small intestinal bacterial overgrowth experience bloating, excessive flatulence, and frequent burping. If the excess gas escapes your body through your mouth, this may cause **bad breath**.

Can SIBO cause breathing problems?

If gas enters the large intestine, it can build up and place pressure on the sides of your ribs. This may lead to discomfort or pain as your diaphragm and ribcage expand and contract as you breathe. In severe cases, pressure on your diaphragm can lead to **shortness of breath**, and even heart pain.

Can SIBO get into skin?

It's true that SIBO can affect your skin. According to one study⁴, people with **acne** were 10 times more likely to have SIBO compared to those with no acne. There is also evidence that people with rosacea are also more likely to have SIBO as well as other gut disorders like IBS⁵.

So, what's the link between stomach issues and your skin? 70% of your immune system can be found in your gut. SIBO compromises your immune system because your body is unable to take in adequate nutrients, and this can lead to skin complaints. SIBO can also trigger inflammation all over your body. Acne is your body's immune system reaction to this inflammation.

How to test for SIBO

As SIBO is not well understood, the diagnosis and treatment of this condition rely heavily on the clinical judgement of your doctor. For many years, lots of people with SIBO may have been misdiagnosed with IBS.

"The symptoms of SIBO are similar to those caused by other conditions such as IBS, [coeliac disease](#), and bowel infections," says Patel. "A doctor will try to exclude these first before considering a diagnosis of SIBO."

Adding to the confusion is the fact that a large group of people suffer with both IBS and SIBO. In fact, up to 80% of those with IBS may also have SIBO⁶.

As such, if you believe that you may have SIBO it's important to ask your doctor to test for it specifically: "To test for SIBO, you can be referred for a test at the hospital. The test involves measuring how much hydrogen is produced by these bacteria over a period of time. There will be more found in patients who have bacterial overgrowth - the hallmark of SIBO," advises Patel.

How to treat SIBO

According to Patel, the doctor will first see if there are any reasons why the bowel may be slow in movement - for example, anti-reflux medications such as lansoprazole or omeprazole.

Treating SIBO then usually involves a 1- to 2-week course of antibiotics. These can be very effective, but relapses are common. After treatment, it's possible that your symptoms can disappear for many months or even years before returning. In this case, your doctor may choose to prescribe the same antibiotics again.

Unfortunately for some people, antibiotics are less effective. If symptoms restart within a few days or weeks of stopping antibiotics, you may need to take 2–3 different antibiotics at a low dose every two weeks in order to prevent your body from developing a resistance to the medication⁷.

Several other at-home treatments and lifestyle habits have been explored for the prevention and management of SIBO:

- **Taking probiotic supplements** – these contain 'good gut bacteria' but there is no evidence that these supplements can prevent SIBO and there is limited evidence that they can improve SIBO⁷.
- **Following the elemental diet** – this is a short-term diet that replaces food and drink with special formulas containing pre-digested carbohydrates, proteins, and fats that can be digested more easily. Some studies report a high success rate of 85%⁸ but this very restrictive diet can be dangerous, particularly for those who are underweight.
- **Following the low FODMAP diet** – another temporary and restrictive food plan that sets out to eliminate [high FODMAP foods](#) known for causing intestinal distress.

Further reading

1. [London Gastroenterology Centre, "Overview of diagnosis and management"](#).
2. [Dukowicz et al. "Small intestinal bacterial overgrowth"](#).
3. [Sibi Doctors, "SIBO and food sensitivities"](#).
4. [Bowe et al. "Acne vulgaris, probiotics and the gut-brain-skin axis – back to the future?"](#).
5. [Weiss et al. "Diet and rosacea: the role of dietary change in the management of rosacea"](#).
6. [Kresser Institute, "SIBO – what causes it and why it's so hard to treat"](#).
7. [British Society of Gastroenterology, "Management of difficult-to-treat small-intestinal bacterial overgrowth"](#).

8. [Pimentel et al. "A 14-day elemental diet is highly effective in normalising the lactulose breath test".](#)

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