



GASTROENTEROLOGY
DEPARTMENT OF THE
CIUSSS de l'Estrie – CHUS

BLOATING

Treatment and advice

ABDOMINAL DISTENSION OR BLOATING?

Even if many people worry about having too much intestinal gas, its production in the digestive tract is a normal process in both the body and during digestion. Healthy gut bacteria, along with digestion processes, are partly responsible for producing gas.

However, it is important to distinguish real abdominal distension from functional bloating. Abdominal distension - an increase in the abdomen's volume that can be caused by air accumulation in intestinal motility disorders. It can also result from the accumulation of fluids in cases of liver cirrhosis or bowel obstruction. It may also be secondary to the presence of solids such as might occur during a pregnancy or during weight gain (abdominal fat).

Functional bloating, on the other hand, manifests as a sensation of having a swollen abdomen, without actual distension, and is a very common complaint. However, it is not associated with any quantifiable abdominal distension or fluid accumulation. Bloating is often associated with constipation and irritable bowel syndrome (IBS).

If your physician has a doubt on whether to diagnose abdominal distension or functional bloating, in some cases they might proceed with an abdominal x-ray or ultrasound. However, a simple physical examination is often sufficient to differentiate the two.

The foul odour of flatulence is normal and not necessarily a sign of digestive tract issues. Constipation is the most common cause of foul-smelling gas. The odour of the gas may become fouler depending on the food consumed and the time the bacteria spend fermenting residual fecal matter.

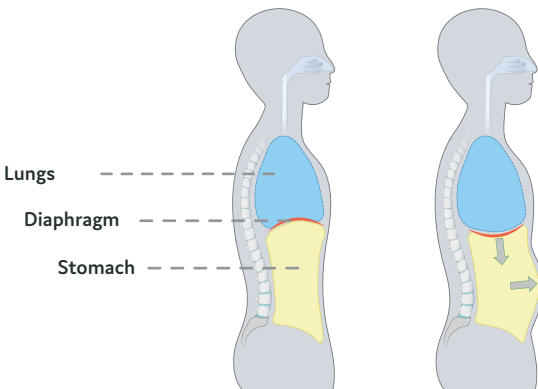
WHAT IS FUNCTIONAL BLOATING?

The intestine contains air that is either swallowed, produced during food digestion, or the result of gas retention. Swallowed air remains in the stomach and passes through the digestive tract in small amounts. Once the air enters the colon, the intestine propels gas toward the anus, where it is released. A healthy person may pass gas 12 to 25 times daily. A significant amount of gas is released overnight. In the morning, little gas remains in the intestine; however, it accumulates throughout the day. Gas that is not expelled regularly throughout the day may cause bloating.

Functional bloating creates a sensation of excess air or fullness. However, all studies show that the amount of air in the intestines of those with bloating is identical to that of the general population.

Abdominal hypersensitivity (oversensitivity to a normal process) explains the discomfort. Discomfort may be more pronounced in parts of the digestive tract where the gas has accumulated. Constipation (slow transit) can also exacerbate the feeling of discomfort.

The sensation of abdominal distension, however, is caused by the accumulation of air in the intestines when the diaphragm descends instead of rising and the abdomen relaxes instead of contracting.



To learn more about diaphragm movement, consult the booklet *Diaphragmatic Breathing*.

HOW IS FUNCTIONAL BLOATING TREATED?

The treatment involves reducing the amount of air entering the digestive tract (aerophagia), reducing the amount of intestinal gas, or improving stool and gas evacuation. The first step often consists in changing food habits. A two-week elimination of lactose (dairy products) is the first test and step to rule out lactose intolerance.

To reduce the amount of air in the digestive tract:

- Eat slowly and chew well.
- Do not drink soft drinks or chew gum.
- Stop smoking (as much as possible).
- Do not speak while eating.
- Do not use straws when drinking or suck on candy.
- Avoid drinking warm beverages in small sips.

To reduce intestinal gas, it is recommended to:

Reduce the consumption of gas-generating foods:

- nonabsorbable and malabsorbed sugars found in foods, candy, and certain medications;
- sorbitol (cherries, prunes, beer, candy for diabetics), lactulose (cookies, bread, medications), lactose (dairy products), and sucrose (candy, ice cream, soft drinks).
- FODMAPs* are a type of carbohydrate found in various foods (e.g., corn, legumes) and candied fruit.

It may be necessary to consult a nutritionist about this topic.

*To learn more about FODMAPs: monashfodmap.com

Take products such as:

- over-the-counter drugs for lactose intolerance (e.g., Lactaid®);
- probiotics;
- Antibiotics, under certain conditions, and with your physician's approval.

To improve stool and gas evacuation, the following techniques may be helpful:

- Take medications that promote gas evacuation (e.g., simethicone).
- Treat constipation with prokinetics or laxatives.
- Do not retain stools or gas.
- Increase physical activity and manage your stress to improve intestinal motility and reduce abdominal discomfort.

For **abdominal hypersensitivity**, the physician may prescribe an abdominal relaxant (antispasmodic such as trimebutine, dicyclomine, or pinaverium) or a neuromodulator (e.g., tricyclic antidepressants). It is also recommended to employ a variety of techniques to better manage stress, which can cause bloating.

There is rarely a single solution to functional bloating. Your physician will explain how to combine some the methods mentioned in this document. It is important to understand that functional bloating is not a serious condition, even if discomfort is present. Stress management, a proper diet, and evacuation hygiene are fundamental to the treatment. They also greatly influence the response to the drugs, if needed. It may also be worthwhile to consult a nutritionist.

Content editing:

Dr Marie-Pier Bachand, gastroenterologist

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Dr Laurence Guay, gastroenterologist

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