



Understanding Bloating and Distension

By: Max Schmulson, M.D., Professor, Faculty of Medicine, National Autonomous University of Mexico (UNAM) and Laboratory of Gastroenterology, Hepatology, and Motility, Department of Experimental Medicine, General Hospital of Mexico, Mexico City, Mexico



International Foundation for Gastrointestinal Disorders (www.iffgd.org)

© Copyright 2013 by the International Foundation for Gastrointestinal Disorders

Bloating can be described as the feeling that there is an inflated balloon in the abdomen. It is a commonly reported symptom and is sometimes associated with distension, or the visible increase in the width of the area between your hips and chest (abdominal girth).

Both bloating and distension cause discomfort, and sometimes pain, and have a negative impact on the quality of life for some individuals. The symptoms may be linked with other gas related complaints, such as burping or belching (eructation), swallowing air (aerophagia), and passing intestinal gas (flatulence).

Some people with functional gastrointestinal disorders (FGIDs) and motility disorders frequently experience bloating, distension, or both as symptoms of their conditions. There is also something called functional bloating, which is fullness and or/distension of the abdomen, *not* associated with changes in bowel movements.

Causes

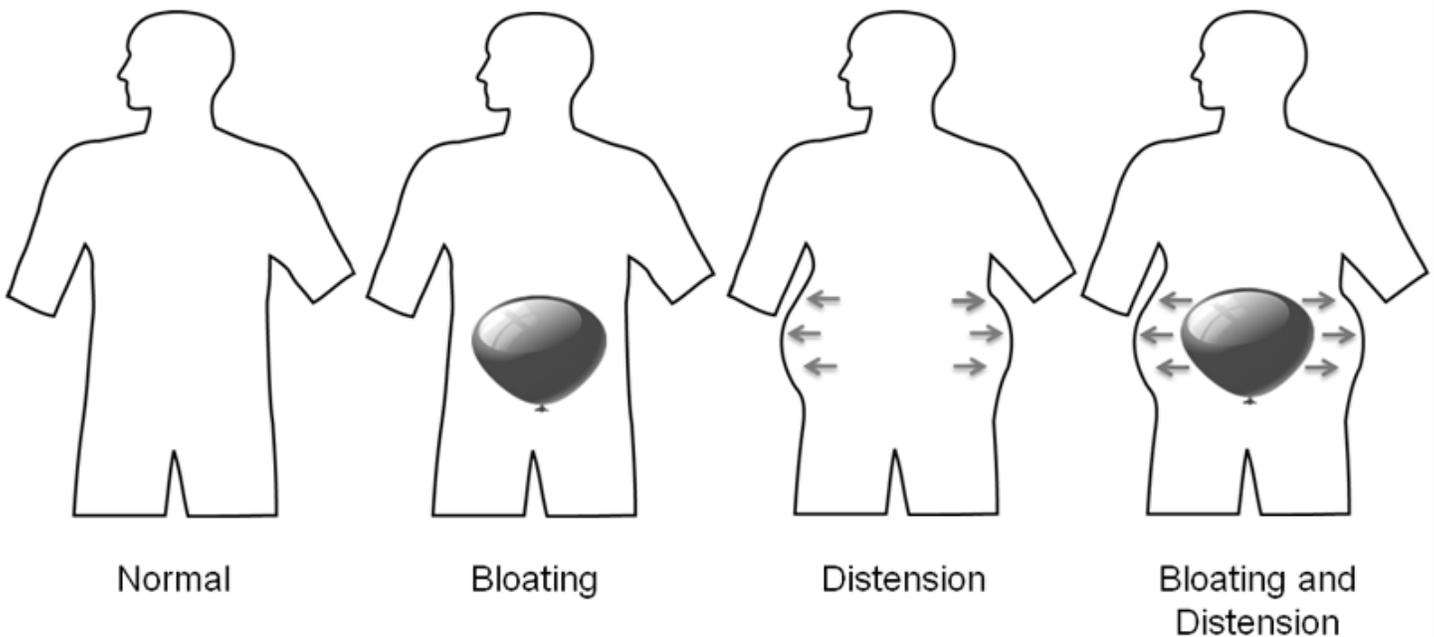
Frequency of reporting of abdominal bloating in individuals with FGIDs

- IBS: 23%-96%
- Functional dyspepsia: 50%
- Chronic constipation: 56%

While researchers have proposed several different explanations for bloating and distension, there is no conclusive answer as to why the two symptoms occur.

Possible reasons for bloating and distension include:

- Too much gas in the intestine
- Abnormal levels of bacteria in the small intestine (Small Intestinal Bacterial Overgrowth – SIBO)
- Imbalance of microorganisms that usually live in the bowel (Dysbacteriosis); sometimes the result of taking antibiotics
- Food intolerance
- Difficulty absorbing (malabsorption) carbohydrates from food, such as FODMAPs (Fermentable Oligosaccharides, Disaccharides, Monosaccharides, and Polyols)
- Increased perception and sensitivity to what is happening in the digestive tract
- Increased curvature of the lumbar region of the spine (lumbar lordosis), which decreases the capacity of the abdomen to hold gas



Treatment

There is no universally effective treatment for bloating and distension. Treatment availabilities vary from country to country and there are many underlying possibilities as to what is causing the symptoms. However, despite the

fact that there isn't an easy answer for bloating or distension, there are things that people can do with the help of their physicians to try and alleviate the symptoms.

Working with a Doctor

It is important to speak openly and honestly with your physician to express a clear picture of your experiences and symptoms. FGIDs present special challenges when communicating, specifically because of their vague symptoms and sensitive subject matter.

There isn't a diagnostic test for bloating or distension; however your doctor may run some tests to rule out underlying problems or associated disorders.

These tests include:

- Stool analysis
- Blood workup
- Abdominal x-rays
- Barium swallow
- Small transit follow through
- Barium enema
- Gastric emptying tests
- Esophageal, antroduodenal, or anorectal manometry
- Colonic transit studies
- Breath test
- Upper endoscopy
- Colonoscopy with biopsies

Did you know that Spanish and some other languages don't have a word for "bloating"?

People use the words "swelling" and "inflammation," or describe it as "feeling pregnant." Using the balloon analogy can be the most helpful. Let your doctor know exactly whether you have the sensation of having a balloon in your abdomen (bloating), the truly visible increase in your abdominal girth (distension), or both.

Individuals can help their physicians by describing their complaints as accurately and concisely as possible. With regard to bloating and distension, here are some important questions to ask and details to tell your health care provider (keeping track of the things that trigger your symptoms is a good way to discover the answers):

Things to Ask your Doctor:

- Am I bloated?
- Am I distended?
- Am I both bloated *and* distended?

Things to Tell your Doctor:

- Is the symptom located in the upper or lower abdomen? Is it in a concentrated area?
- Is your bloating or distension associated with burping?
- Do you experience nausea or vomiting?
- Is the symptom associated with pain in your abdomen? Upper or lower?
- Does the bloating or distension relate to passing gas or a change in your bowel habits (diarrhea, constipation, or alternation of both)?
- Are your symptoms related to food? Which ones?
- Do they occur right after eating?
- Do your symptoms increase during the day or improve during night hours?

Medications and other therapies

Some medications and other treatments have been found to help ease the symptoms of bloating and distension. Your doctor may talk to you about some of these options, depending on your symptoms and other health related considerations.

Antispasmodics: These can relax the muscles of the bowel and provide relief. Examples include dicyclomine (Bentyl) and hyoscyamine (Levsin) in the United States and otilonium bromide or pinaverium bromide available in Latin America and some countries in Europe and Asia and a combination of pinaverium bromide with simethicone (Alevian Duo) in some Latin America countries.

Probiotics: These dietary supplements contain live bacteria that help balance out the existing bacteria of the intestines. Some that include a relatively low level of probiotic bacteria are available over the counter or in yogurt varieties. Other options include *Bifidobacterium infantis* 35624 for individuals with Irritable Bowel Syndrome (IBS) in general, and *Bifidobacterium animalis* DN-0173 10 for patients with IBS with Constipation (IBS-C).

Rifaximin: This antibiotic is only slightly absorbed and can be used for short periods of time. Usually it is used (off-label) to lessen bloating in people with IBS whose symptoms do *not* include constipation, or in those with small intestinal bacterial overgrowth.

Prokinetics: These are medications that improve the time it takes for food to travel through the digestive tract. Some prokinetics have been shown to improve bloating. A person's age, health and other considerations must be taken into account for these therapies and availabilities vary from country to country.

Antidepressants: These drugs affect receptors in the gut and in the brain. Given in lower dosages than what is used to treat depression, they have been shown to help alleviate bloating and distension. For example, citalopram (Celexa), an SSRI (Selective Serotonin Reuptake Inhibitor), has been shown to help improve bloating in individuals with IBS. Amitriptyline (Elavil), a tricyclic antidepressant, is commonly used to treat pain and discomfort, as well as diarrhea, and may be helpful for bloating.

Other options: Medications that increase fluid content in stools, lubiprostone (Amitiza) or linaclotide (Linzess) for example, may also be used.

Psychological therapies: Treatments including hypnotherapy and cognitive-behavioral therapy can be useful and help with symptoms and mood.

Low FODMAP diet: Working with a doctor or registered dietitian to determine a diet low in FODMAPs is an option for alleviating bloating and distension symptoms. Foods that are rich in FODMAPs include:

- Fruits such as mangoes, apples, pears, avocados, blackberries, and plums
- Dairy products like cow, sheep, and goat milk, as well as yogurt, ice cream, and soft cheeses including cottage cheese, cream cheese and mascarpone
- Honey
- Vegetables and legumes such as asparagus, bell peppers, broccoli, Brussels sprouts, cabbage, cauliflower, eggplant, onion, garlic, baked beans, kidney beans, and lentils
- Sweeteners like sorbitol and maltitol (frequently used in gum and other candies)

What are FODMAPs?
FODMAPs are short-chain carbohydrates that are poorly absorbed in the small intestine and rapidly fermented by bacteria in the gut.

Conclusion

Bloating and distension are both very common, for the general population and for those with FGIDs and motility disorders. Either of the two may be very bothersome to individuals that are experiencing the symptoms, as well as challenging to those trying to treat them. There is not a conclusive cause for bloating or distension, nor is there a universally effective treatment. With the help of a physician, individuals can find different treatment options that may help alleviate their

For specific guidance regarding personal health questions, we advise consultation with a qualified healthcare professional familiar with your particular circumstances. Be sure to thoroughly discuss treatment options and the use of any medications for treatment with your physician. When prescribed a medication, disclose the use of all other drugs or supplements (whether prescription or over-the-counter) with your physician.

symptoms.

Suggested Reading

Current pharmacologic treatments of irritable bowel syndrome. IFFGD Fact Sheet No. 168. 2012.

Dietary triggers for IBS symptoms: the low FODMAP diet approach. IFFGD Fact Sheet No. 251. 2014.

Gastrointestinal motility disorders of the esophagus and stomach. IFFGD Brochure No. 510. 2013.

How to prepare for tests. IFFGD Fact Sheet No. 219. 2012.

About IFFGD

The International Foundation for Gastrointestinal Disorders (IFFGD) is a 501(c)(3) nonprofit education and research organization. We work to promote awareness, scientific advancement, and improved care for people affected by chronic digestive conditions. Our mission is to inform, assist, and support people affected by gastrointestinal disorders. Founded in 1991, we rely on donors to carry out our mission. Visit our website at: www.iffgd.org or www.aboutIBS.org.

IFFGD

537 Long Point Road, Suite 101
Mt Pleasant, SC 29464

About the Publication

Opinions expressed are an author's own and not necessarily those of the International Foundation for Gastrointestinal Disorders (IFFGD). IFFGD does not guarantee or endorse any product in this publication

or any claim made by an author and disclaims all liability relating thereto. This article is in no way intended to replace the knowledge or diagnosis of your healthcare provider. We advise seeing a healthcare provider whenever a health problem arises requiring an expert's care.

For more information, or permission to reprint this article, contact IFFGD by phone at 414-964-1799 or by email at iffgd@iffgd.org.
