



# A Noisy Tummy: What Does it Mean?



By: Darren Brenner, M.D., Associate Professor of Medicine and Surgery, Northwestern University  
Adapted from article by: W. Grant Thompson, M.D., Professor Emeritus, Faculty of Medicine, University of Ottawa, Ontario, Canada  
Edited by: Lin Chang, M.D., UCLA School of Medicine, Los Angeles

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Most of the time, our gastrointestinal (GI) system attracts little public attention if we appropriately fill and empty it at regular intervals. However, a noisy bowel may be, or seem to be, apparent to all within earshot. Even with a healthy gut, some people feel a rumbling, growling stomach can be a source of profound embarrassment. Technically called “borborygmi”, bowel sounds seem loudest to the owner. This can lead to embarrassment or anxiety during social functions. However, most of these noises cannot be heard by others. Many people are unaware of louder bowel sounds or at least unconcerned.

## What Causes Bowel Sounds?

The following causes a noise in the stomach:

- A muscular contraction of the intestinal wall
- The presence of liquid within the intestines
- The presence of gas within the intestines

The food we eat and the fluids we drink are mixed with GI secretions in the intestine. It takes about two gallons of enzyme-rich fluid to break down what we eat each day. Enzymes are substances that break down food and nutrients, most of which is then absorbed. When we are awake, our intestines rhythmically move as the walls contract and relax. This mixes foods we eat with secretions in the GI tract. The mixture helps break down food and transports it from mouth to anus. The anus is the lower opening of the GI tract. It is important to separate the noisy movement of fluid and gas from other gases that occur. Gases can include belching, bloating, and the passing of gas from below. While

these symptoms of gas may occur along with loud bowel sounds, they do not occur for the same reason. Gases are always present in the intestine. They originate either from swallowed air or the release of gases within the GI tract. These include hydrogen, carbon dioxide, and other gases released by the bacterial fermentation of undigested food in the lower gut. Fermentation is a chemical process where bacteria break down substances, such as sugar.

## Medical Importance of a Noisy Bowel

Whether audible or not, bowel sounds without other significant symptoms are normal. Typically, there is no medical significance of bowel sounds; however, in certain medical circumstances, hyperactive or absent bowel sounds can cause concern.

**Hyperactive Bowel Sounds** – Hyperactive is defined as being overly active or occurring more than usual. Bowel sounds are often noted to be hyperactive when someone is experiencing diarrhea. With diarrhea, muscle movements, fluid, and gas in the intestines increase. This causes the sounds of watery stool splashing through the gut to be louder. Some malabsorption conditions are also related to loud bowel sounds. One common example occurs with lactose intolerance. There are reduced levels of the small intestinal enzyme needed to digest the milk sugar

**Malabsorption** occurs when nutrients are not absorbed well by the small intestines.

Learn more about Belching with IFFGD Fact Sheet No. 511 *Belching: is it Normal?*

Learn more about diarrhea with IFFGD Fact Sheets No. 150: *Chronic Diarrhea: Could it have an Everyday Cause?*  
  
No. 258: *Patient Guide to Chronic Diarrhea*

lactose. This allows lactose to reach the colon intact. Bacteria in the colon then ferments the lactose. These organisms release hydrogen and other substances and gases into the gut. Fluids in the gut then increase, causing muscle contractions in the gut to increase. Thus, all of the conditions that produce abdominal sounds are increased (muscular contractions along with the presence of liquid and gas within the intestines) causing hyperactive bowel sounds. Other examples of conditions associated with malabsorption include celiac disease and exocrine pancreatic insufficiency (EPI).

**Celiac disease** is an autoimmune disease where the lining of the intestine is damaged from eating gluten.

**Exocrine pancreatic insufficiency (EPI)** occurs when there are not enough exocrine pancreatic enzymes, preventing food from being properly digested.

A more serious instance of hyperactive bowel sounds occurs when there is an obstruction of the gut. This can be a blockage that is just forming or partially blocks the gut. In this emergency situation, increased intestinal contractions attempt to force solids, liquids, and air through a narrowing of the intestine. The result is very loud bowel sounds. When obstruction occurs, illness is often obvious, and individuals suffer from symptoms including:

- Severe abdominal pain - pain varying from dull to sharp that occurs inside the stomach or intestines
- Nausea - a feeling of sickness with an urge to vomit
- Vomiting - bringing food back up from the stomach
- Constipation - having 3 or fewer bowel movements a week, and/or difficulty passing bowel movements
- Inability to pass gas from below
- A general feeling of discomfort or sickness

Although there is much variation from person to person, in most cases of loud noises from a hyperactive stomach is normal. However, your healthcare provider should be made aware of these sounds if you are also experiencing diarrhea, pain or other symptoms.

**Absent Bowel Sounds** – While the intestines may be quiet during sleep and at certain times of the day, they should not be silent for long. The complete absence of sounds in the GI tract during an attack of severe abdominal pain could be a sign of an emergency. This often requires immediate admission to hospital and sometimes surgery. Examples of such uncommon events include late-stage bowel obstruction or bowel perforation. With bowel perforation, sudden abdominal pain is due to an infection of the lining of the abdominal cavity. The result is a shutdown of all intestinal movements. The abdomen then becomes eerily quiet even when examined by a stethoscope. It is important to note that the intestines also become quiet after abdominal surgery. In this instance, returning bowel sounds is an early and reliable sign of recovery.

### Technology

There have been attempts to improve the use of bowel sounds to help with diagnoses. Various listening devices record the amount, frequency, and location of the sounds. These tools do not improve basic understanding of the cause. Interpreting bowel sounds do not replace the need to consider more traditional and accurate examinations if other symptoms are present. Ultrasounds and CT scans are important tools in GI diagnosis.

### What Can Be Done about a Noisy Bowel?

There is no specific treatment for a noisy movement of fluid and gas in the GI tract. Loud bowel sounds may occur with changes of intestinal function. Common conditions causing this are dyspepsia and irritable bowel syndrome (IBS). Dyspepsia is a condition with indigestion and upper abdominal discomfort. IBS is a common GI condition characterized by changes in bowel habits and abdominal pain or discomfort.

Some advertised treatments for a noisy GI tract may be harmful. The use of antibiotics has not been shown to help and are potentially dangerous. Unnecessary use of antibiotics can allow the growth of bacteria that may be harmful. Probiotics are promoted for many abdominal problems, but there is no evidence that they will help. Probiotics are live microorganisms such as bacteria.

These are often in the form of a pill and are present in yogurt.

Dietary adjustment may help if you have a malabsorption issue (such as lactose intolerance). It may also be helpful to change a diet high in fructose or the artificial sweetener sorbitol. These sweeteners are commonly present in diet gums, candies, and preserves. High amounts of these sugars may cause diarrhea, flatus, and increased intestinal noise. Flatus is gas occurring in the intestines or stomach.

While some believe that tummies should be seen and not heard, any expert will tell you that noise comes with the territory. However, if these noises are interfering with your enjoyment of life, you should discuss this with your healthcare provider.

#### Tip

Too much of certain sugars may cause a noisy tummy. Try reducing the amount of fructose and sorbitol that you eat.

- Fructose, naturally present in onions, artichokes, pears, and wheat, is also used as a sweetener in some soft drinks and fruit drinks.
- Sorbitol, found naturally in fruits, including apples, pears, peaches, and prunes, is also used as an artificial sweetener in many dietetic foods and sugar-free candies and gums.

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#### IFFGD

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

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