American College of Gastroenterology  
Digestive Disease Specialists Committed to Quality in Patient Care

Common Gastrointestinal Problems  
A Consumer Health Guide

Intestinal Gas Problems

Although the mention of intestinal gas problems, such as belching, flatulence, bloating and “gas pains” often elicits some degree of amusement, all of us have gas in our intestinal tract and must expel it in some way. Some individuals are very sensitive to the effects of gas collections in the stomach and intestinal tract and may develop significant discomfort. If such complaints are troublesome and persistent and do not respond to simple measures, such as change in diet, a visit to your doctor could be helpful.

Where does the gas that we belch or burp come from?

The gas brought back by belching comes entirely from swallowed air. We all swallow some air when eating food and drinking liquids. Most of the gas mixes with the stomach content and either enters into the small intestine or is belched back. The air that enters the small intestine is either absorbed or it may continue through to the large intestine and is then passed rectally. Individuals may swallow more air (and thus increase stomach gas) if they have a post-nasal drip, chew gum, have poorly fitting dentures, suck on hard candies or smoke tobacco. Drinking carbonated beverages (soda or beer) or eating rapidly can also increase stomach gas.

What causes repetitive belching or burping?

Some people have episodes of repeated belching. Since belched gas comes from swallowed air, these individuals are usually unaware that they caused the problem by swallowing air into the esophagus and bringing it back rapidly. Often, the habit can be broken if the person is made aware of the air swallowing behavior.

What foods cause increased flatus passage?

The food we choose to eat can influence the amount of gas passed rectally. Although most of our food intake is absorbed in the small intestine, some foods, such as cauliflower, broccoli, cabbage, baked beans, and bran are incompletely digested. They are then broken down by bacteria in the large intestine, causing the formation of gas.

A high roughage diet is important to promote bowel regularity, but excessive roughage or fiber may lead to bloating and increased flatulence. When increasing the amount of fiber in your diet, do so gradually, allowing your intestinal tract time to adjust.

Milk sugar (lactose) requires an intestinal enzyme (lactase) for digestion. When individuals lack this enzyme the lactose in milk and other dairy products enters the large intestine where the lactose is broken down by bacteria, producing gas. Although milk is an excellent source of protein and calcium, many adults experience abdominal bloating, gas and diarrhea after consuming milk sugar. Persons from Asia and Africa are often extremely intolerant to the smallest quantity of dairy products.

Everyone passes some rectal gas, although the volume of gas is different each day. Much of the flatus comes from the nitrogen found in the air one swallows. The remainder of the flatus volume is the result of carbohydrates which are not absorbed in the small intestine and are broken down by bacteria in the large intestine. Therefore, the amount of flatus represents a combination of swallowed air and poorly absorbed carbohydrates. The unpleasant order of flatus is due to other gases, such as hydrogen sulfide, which is produced by the bacteria.

How can the volume of flatus be reduced?

In addition to the gas-forming foods cited above, some diet chewing gum and hard candies use sorbitol or fructose as sweeteners. These sugars can lead to excess gas production and should be avoided. Elimination of dairy products or the use of lactase-added milk can be helpful for those with lactase deficiency.

Where do I feel gas pains?

Individuals with irritable bowel problems (crampy pain and/or bowel irregularity) are often sensitive to excess intestinal gas. A common symptom is generalized abdominal cramping, sometimes relieved by passing flatus. If the gas accumulates in the right upper abdomen, the pain may radiate up into the right lower chest and could be
What Everyone Should Know About
Intestinal Gas Problems

confused with gallbladder disease. If the gas accumulates in
the left upper abdomen, the pain may radiate into the left side
of the chest and could mimic heart disease. If gas
accumulates in the stomach, the upper abdominal pressure
pain could radiate up to the lower chest and raise concern
about a heart disorder.

Is there treatment for gas pains?
Your physician may wish to obtain tests to be confident
that recurrent “gas pains” are not the result of some other
disorder. If the tests are normal, a diet designed to reduce
both air swallowing and the ingestion of gas forming foods
would be helpful. Anti-spasmodic medications may relieve
crampy discomfort, but these can have side effects on the
eyes, plus bladder and bowel function.

What causes abdominal distension
(bloating)?
Many individuals complain of abdominal distension
which increases during the day and is most uncomfortable
after the evening meal. Often distension is believed to be
caused by the build-up of intestinal gas; however, there are
other considerations. The tone of the rectus muscles (the
muscles which support the abdominal wall and run along the
length of the abdomen on either side of the navel) may be
decreased due to the stretching of the abdominal wall in
women who have had one or more pregnancies. If these
muscles have become thinned, the abdomen may distend as
food (and gas) moves through the intestine. This is most
noticed after the evening meal. This explanation for
distension (bloating) is most likely if the uncomfortable
feeling is absent when the individual is lying down (you don’t
need the rectus muscle for a “flat” abdomen when lying
down) but is apparent when standing or sitting erect. There
is no effective medical therapy for this type of abdominal
bloating but exercise directed toward strengthening the
abdominal muscles may be helpful, particularly in younger
women.

When should individuals with
gaseous symptoms consult a
physician?
Individuals with a long history of occasional
gaseousness and abdominal discomfort need not seek
medical attention. A change in the location of abdominal
pain, significant increase in the frequency or severity of
symptoms, or onset of new symptoms in individuals over the
age of 40 are some of the reasons to see your doctor.

What over-the-counter drugs
provide relief for gaseous
symptoms?
Despite the many commercials and advertiseme
medications which reduce gas pains and bloating, very few
have any proven scientific value. Simethicone, a common
additive to antacid preparations, shows some benefits when
being tested in a lab, but many individuals feel little relief.
Several scientific studies have found some benefit from
activated charcoal preparations in gassy or flatulent
individuals, but other studies have failed to show symptom
improvement.

10 Steps to Decrease Symptoms of Intestinal Gas
1. Develop a regular routine of diet, exercise, and rest.
2. Correct bad habits:
   - Chew food thoroughly
   - Eat slowly and leisurely in a quiet atmosphere
   - Avoid washing solids down with a beverage
   - Avoid gulping and sipping liquids
   - Avoid drinking out of small mouthed bottles or straws
   - Avoid drinking from water fountains
   - Avoid carbonated beverages—sodas and beer
   - Eliminate pipe, cigar, and cigarette smoking
   - Avoid gum chewing and sucking hard candy
   - Check dentures for proper fit
   - Attempt to be aware of and avoid deep sighing
3. Do not attempt to induce belching.
4. Do not overload the stomach at any one meal.
5. Avoid gaseous vegetables: navy beans, cabbage, brussel
   sprouts, cauliflower, broccoli, turnips, cucumbers, radishes,
   onions, melons, and excess raw fruit and vegetables.
6. Avoid foods with air whipped into them—souffles, sponge cake,
   milk shakes.
7. Avoid long-term or frequent intermittent use of medications
   intended for relief of cold symptoms—cough, nasal congestion,
   post nasal discharge.
8. Avoid tight fitting garments, girdles, and belts.
9. Do not lie down or sit in a slumped position immediately after
   eating.
10. Take a leisurely stroll after meals.

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