



## CONTROLLING GAS

Everyone produces gas, and everyone needs to pass gas, either by belching (burping) or passing it through the anus (flatulence). The amount depends on the individual, and there is a wide range of “normal”. Many people think they have too much gas when they really have normal amounts. Although having gas is common, passing it can be uncomfortable and embarrassing. Understanding causes, ways to reduce symptoms and treatment will help most people find relief.

### What is gas?

Gas is primarily made of odorless vapors – carbon dioxide, oxygen, nitrogen, hydrogen, and sometimes methane. The unpleasant odor comes from bacteria in the large intestine that release small amounts of gases that contain sulfur.

### What causes gas?

Gas in the digestive tract comes from one of two sources. Air swallowing (aerophagia) is a common cause of gas in the stomach. Everyone swallows small amounts of air when eating and drinking. However, eating or drinking rapidly, chewing gum, smoking, or wearing loose dentures can cause some people to take in more air.

The normal breakdown of certain undigested foods by harmless bacteria naturally present in the large intestine (colon) also produces gas. Some carbohydrates (sugar, starches, and fiber) are not digested in the small intestine but pass into the large intestine. Normal colonic bacteria break down the food, producing hydrogen, carbon dioxide, and, in some people, methane. Eventually these gases exit through the anus. Foods that produce gas in one person may not cause gas in another.

### What causes uncontrollable gas?

Anal incontinence (solid, liquid or gas) can have several causes.

- Damage to the anal sphincter muscles caused by injury. These muscles keep stool inside, and when damaged, are not strong enough to do their job. In women, damage most often happens when giving birth. The risk of injury is greatest if forceps

were used to help deliver the baby, or if an episiotomy was done. Hemorrhoid surgery can also damage the sphincter.

- Damage to the nerves of the anal sphincter muscles or the rectum. If the nerves that control the sphincter are injured, the muscles don't work properly. If the nerves don't sense that stool is in the rectum, you won't feel the need to use the bathroom until stool has leaked out. Nerve damage can be caused by childbirth, a habit of straining to pass stool, stroke, and diseases that affect the nerves such as diabetes or multiple sclerosis.
- Loss of reservoir (storage) capacity in the rectum. Normally, the rectum stretches to hold stool until you can get to the bathroom. Rectal surgery, radiation treatment, and inflammatory bowel disease can cause scarring that makes the walls of the rectum stiff and less elastic. The rectum then can't stretch as much, can't hold stool, and anal incontinence ensues.
- Diarrhea. Diarrhea, or loose stool, is more difficult to control than solid stool that is formed. Even people who don't have anal incontinence can have an accident when they have diarrhea.
- Pelvic Floor Dysfunction. Abnormalities of the pelvic floor can lead to anal incontinence. Often the cause of pelvic floor dysfunction is childbirth, and incontinence doesn't show up until the mid-forties or later.

Frequent or involuntary passage of gas (flatus) without loss of fecal material, while not clinically defined as incontinence, may also impair a person's quality of life.

### Is there any treatment for this embarrassing problem?

First, check with your physician to rule out any other medical causes for excess gas. The most common ways to reduce the discomfort of gas are changing diet, taking medications, and reducing the amount of air swallowed.

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### Diet

The amount of gas caused by certain foods varies from person to person. Effective dietary changes depend on learning through trial and error which foods cause you problems, and how much of the offending foods you can handle. Sometimes food may not have to be completely eliminated, only limited. For instance, you may be able to have one carbonated beverage a day, but more than that causes you problems. Foods that commonly cause increased gas are:

- Legumes: especially dried beans and peas, baked beans, soy beans, lima beans.
- Milk products: milk, ice cream and cheese.
- Vegetables: cabbage, radishes, onions, broccoli, Brussel sprouts, cauliflower, cucumbers, sauerkraut, kohlrabi, asparagus.
- Root vegetables: potatoes, rutabaga, turnips.
- Fruits: prunes, apricots, apples, raisins, bananas.
- Cereals & breads: cereals, breads, pastries and all foods containing wheat and wheat products.
- Fatty foods: pan-fried or deep fried foods, fatty meats, rich cream sauces and gravies, pastries, and any high-fat foods.
- Liquids: carbonated beverages.

You will notice that most of these same foods are recommended as good sources of fiber to prevent constipation. You will reduce the chance of bloating, discomfort and increased gas if you gradually increase fiber in your diet over a period of several weeks.

You can either eliminate one category of gas producing foods for a week to see if you experience less gas. If there is no difference, add back this category, and try eliminating another. Or you can eliminate all foods for 3-4 days then gradually add back one food at a time every 3-4 days. If you develop increased gas after adding back a certain food, you have found a culprit.

### Medications

Many nonprescription, over-the-counter medicines are available to help reduce symptoms. Antacids, such as Mylanta II, Maalox II, and Di-Gel, contain simethicone,

a foaming agent that joins gas bubbles in the stomach so that gas is more easily belched away. However, these medicines have no effect on intestinal gas.

The enzyme lactase, which aids with lactose digestion, is available without a prescription (Lactaid and Lactrase). Chewing these tablets just before eating may help digest foods that contain lactose (milk, milk products and some starches).

Beano, an over-the-counter digestive aid, contains the sugar-digesting enzyme that the body lacks to digest sugar in beans and many vegetables. Beano has no effect on gas caused by lactose or fiber.

Activated charcoal tablets (Charco Caps, Charcoal Plux) may provide relief from gas in the colon. Studies have shown that when taken before and after a meal, intestinal gas is greatly reduced.

Products containing chlorophyllin copper (Nullo, Derifil) can help minimize offending odor.

### Reducing Swallowed Air

If swallowing air seems to be a problem for you, you may want to avoid chewing gum and avoid eating hard candy. Try eating at a slower pace. Smoking a cigar or pipe may increase the amount of saliva produced and swallowed, and may cause you to swallow more air. Check with your dentist to make sure any dentures fit properly because ill-fitting dentures can cause people to swallow more saliva which carries air bubbles. Post-nasal drip tends to make people swallow more often, carrying more air to the stomach.

### Pelvic Floor Exercises

If incontinence of gas is a symptom of pelvic muscle relaxation, strengthening these muscles with pelvic floor exercises may be helpful. Your physician will be able to tell you if this is a good treatment option for you, and refer you to a qualified physical therapist that specializes in these types of problems.

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