

### Farts Q & A

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#### What is fart gas made of?

The composition of fart gas is highly variable.

Most of the air we swallow, especially the oxygen component, is absorbed by the body before the gas gets into the intestines. By the time the air reaches the large intestine, most of what is left is nitrogen. Chemical reactions between stomach acid and intestinal fluids may produce carbon dioxide, which is also a component of air and a product of bacterial action. Bacteria also produce hydrogen and methane.

But the relative proportions of these gases that emerge from our anal opening depend on several factors: what we ate, how much air we swallowed, what kinds of bacteria we have in our intestines, and how long we hold in the fart.

The longer a fart is held in, the larger the proportion of inert nitrogen it contains, because the other gases tend to be absorbed into the bloodstream through the walls of the intestine. A nervous person who swallows a lot of air and who moves stuff through his digestive system rapidly may have a lot of oxygen in his farts, because his body didn't have time to absorb the oxygen.

According to Dr. James L. A. Roth, the author of *Gastrointestinal Gas* (Ch. 17 in *Gastroenterology*, v. 4, 1976) most people (2/3 of adults) pass farts that contain no methane. If both parents are methane producers, their children have a 95% chance of being producers as well. The reason for this is apparently unknown. Some researchers suspect a genetic influence, whereas others think the ability is due to environmental factors. However, all methane in any farts comes from bacterial action and not from human cells.



### Where does fart gas come from?

The gas in our intestines comes from several sources: air we swallow, gas seeping into our intestines from our blood, gas produced by chemical reactions in our guts, and gas produced by bacteria living in our guts.

#### What makes farts stink?

The odor of farts comes from small amounts of hydrogen sulfide gas and mercaptans in the mixture. These compounds contain sulfur. Nitrogen-rich compounds such as skatole and indole also add to the stench of farts. The more sulfur-rich your diet, the more sulfides and mercaptans will be produced by the bacteria in your guts, and the more your farts will stink. Foods such as cauliflower, eggs and meat are notorious for producing smelly farts, whereas beans produce large amounts of not particularly stinky farts.

### Why do farts make noise?

The sounds are produced by vibrations of the anal opening. Sounds depend on the velocity of expulsion of the gas and the tightness of the sphincter muscles of the anus. Contrary to a popular misconception, fart noise is not generated by the flapping of the butt cheeks.

Why are stinky farts generally warmer and quieter than regular farts?

Most fart gas comes from swallowed air and consists largely of nitrogen and carbon dioxide, the oxygen having been absorbed by the time it reaches the anal opening. These gases are odorless, although they often pick up other (and more odiferous) components on the way through the bowel. They emerge from the anus in fairly large bubbles at body temperature. A person can often achieve a good sound with these voluminous farts, but they are commonly (but not always!) mundane with respect to odor, and don't feel particularly warm.

Another major source of fart gas is bacterial action. Bacterial fermentation and digestion processes produce heat as a byproduct as well as various pungent gases. The resulting bubbles of gas tend to be small, hot, and concentrated with stinky bacterial metabolic products. These emerge as the notorious, warm, SBD (Silent-But-Deadly), often in amounts too small to produce a good sound, but excelling in stench.

### How much gas does a normal person pass per day?

On average, a person produces about half a liter of fart gas per day, distributed over an average of about fourteen daily farts.

Whereas it may be difficult for you to determine your daily flatus volume, you can certainly keep track of your daily numerical fart count. You might try this as a science fair project: Keep a journal of everything you eat and a count of your farts. You might make a note of the potency of their odor as well. See if you can discover a relationship between what you eat, how much you fart, and how much they smell.

#### How does a fart travel to the anus?

One may wonder why fart gas travels downward toward the anus when gas has a lower density than liquids and solids, and should therefore travel upwards.

The intestine squeezes its contents toward the anus in a series of contractions, a process called peristalsis. The process is stimulated by eating, which is why we often need to poop and fart right after a meal. Peristalsis creates a zone of high pressure, forcing all intestinal contents, gas included, to move towards a region of lower pressure, which is toward the anus. Gas is more mobile than other components, and small bubbles coalesce to from larger bubbles en route to the exit. When peristalsis is not active, gas bubbles may begin to percolate upwards again, but they won't get very far due to the complicated and convoluted shape of the intestine. Furthermore, the anus is neither up nor down when a person is lying down.

### Why do farts come out of your butt?

The butt is the location of the anus in humans, and by definition, a fart is an anal escape of intestinal gas. We should be grateful that we are not crinoids. The crinoid is a marine creature with a U-shaped gut, and its anus is located next to its mouth.

### How long does it take fart gas to travel to someone else's nose?

Fart travel time depends on atmospheric conditions such as humidity, temperature and wind speed and direction, the molecular weight of the fart particles, and the distance between the fart transmitter and the fart receiver. Farts also disperse (spread out) as they leave the source, and their potency diminishes with dilution. Generally, if the fart is not detected within a few seconds, it will be too dilute for perception and will be lost into the atmosphere forever.

Exceptional conditions exist when the fart is released into a small enclosed area such as an elevator, a small room, or a car. These conditions limit the amount of dilution possible, and the fart may remain in a smellable concentration for a long period of time, until it condenses on the walls.

### Why is there a 13 to 20 second delay between farting and the time it starts to smell?

Actually, the fart stinks immediately upon emergence, but it takes several seconds for the odor to travel to the farter's nostrils. If farts could travel at the speed of sound, we would smell them almost instantly, at the same time we hear them.

### Is it true that some people never fart?

No, not if they're alive. People even fart shortly after death.

#### Do even movie stars fart?

Yes, of course. So do grandmothers, priests, kings, presidents, opera singers, beauty queens, and nuns. Even Yoda farts.

#### Do men fart more than women?

No, women fart just as much as men. It's just that most men take more pride in it than most women. There is a large variation among individuals in the amount of fart gas produced per day, but the variation does not correlate with gender.

I have read that men fart <u>more often</u> than women. If this is true, then women must be saving it up and expelling more gas per fart than men do.

#### Do men's farts smell worse than women's farts?

Based on what I have experienced of women's farts, all I can say is that I hope not. Scientific studies of farts show that women's farts have a higher concentration of odor-causing gases than men's farts, but men's farts have a larger volume. The two factors equalize out (the same number of stench molecules for both), so the odor is about the same.

### At what time of day is a gentleman most likely to fart?

A gentleman is mostly likely to fart first thing in the morning, while in the bathroom. This is known as "morning thunder," and if the gentleman gets good resonance, it can be heard throughout the household.

### Why are beans so notorious for making people fart?

Beans contain sugars that we humans cannot digest. The most offensive sugars, known as "flatulence factors" to scientists who research farts, are raffinose, stachiose, and verbascose. When these sugars reach our intestines, the bacteria go wild, have a big feast, and make lots of gas!

Other notorious fart-producing foods include corn, bell peppers, cauliflower, cabbage, milk, bread, eggs, beer, and raisins. People unable to digest milk due to lactose intolerance will suffer extreme flatulence if they consume dairy products.

A friend of mine had a dog who was exceptionally fond of apples and turnips. The dog would eat these things and then get prodigious gas. A dog's digestive system is not equipped to handle such vegetable matter, so the dog's bacteria worked overtime to produce remarkable flatulence.

## What things other than diet can make a person fart more than usual?

People who swallow a lot of air fart more than people who don't. This can be cured somewhat by chewing with your mouth closed, eating more slowly, and not gulping food or liquids. Chewing gum, smoking, and sucking on candy also can cause a person to swallow more air. Carbonated drinks give a person extra gas. Nervous people with fast moving bowels will fart more because less air is absorbed out of the intestines. Some disease conditions can

cause excess flatulence. Going up in an airplane or other low-pressure environment can cause the gas inside you to expand and emerge as flatus. Tilting your head back and pouring a drink straight down your gullet (chugging) also leads to an excess of swallowed air, and hence, farting.

### Is a fart really just a burp that comes out the wrong end?

No, a burp emerges from the stomach and has a different chemical composition from a fart. Farts have less atmospheric gas content and more bacterial gas content than burps.

#### Is it harmful to hold in farts?

There are differences in opinion on this one. Certainly, people have believed for centuries that retaining flatus is bad for the health. Emperor Claudius even passed a law legalizing farting at banquets out of concern for people's health. There was a widespread belief that a person could be poisoned or catch a disease by retaining farts.

Doctors I have spoken to recently have told me that there is no particular harm in holding in farts. Farts will not poison you; they are a natural component of your intestinal contents. The worst thing that can happen is that you may get a stomach ache from the gas pressure. But one doctor suggested that pathological distention of the bowel could result if a person holds in farts too much. And Dr. P. said that the effort involved in retaining flatus can cause hemorrhoids.

### How long would it be possible to not fart?

As I understand it, a captive fart can escape as soon as the person relaxes. This means that a lot of people who assiduously refrain from farting during the day do so at great length as soon as they fall asleep. Having been on a great many overnight field trips, long bus trips, and trans-Pacific flights, I can personally vouch for the fact that lots of people do fart voluminously as they doze off. So the answer to the question would be, you can refrain from farting as long as you can stay awake!

### Do all people fart in their sleep?

I have not made a scientific study of this, but I don't think all people fart in their sleep. I think mainly those who refuse to fart when they're awake do so when dozing off. For other people, toilet training takes such a strong hold that they let nothing pass their sphincters in sleep. For these people, the gas accumulates in the night and they vent it upon awakening.

### Where do farts go when you hold them in?

How often have you held in a fart, intending to release it at the first appropriate opportunity, only to find that the fart has disappeared when you are ready for it?

I asked several doctors where the fart goes. Does it leak out slowly without the person knowing it? Is it absorbed into the bloodstream? What happens to it?

The doctors agree that the fart is neither released nor absorbed. It simply migrates back upward into the intestine and comes out later.

It is reassuring to know that such farts aren't really lost, just delayed.

#### How can one cover up a fart?

There is a company called Fartypants that sells underwear designed to absorb the odor of farts. If you should be caught without your Fartypants, another ploy is to blame the dog or cat, if one should be present, or complain about how the wind must be blowing from the direction of the paper mill.

As for the sound... if you are in a large group of people, act oblivious and innocent, or glance quickly at the person next to you, as if you think he/she did it. Other strategies include coughing or suddenly moving your chair so that people think that they misheard the fart. If you are with one other person, you can act as if nothing happened, and the other person may believe he was mistaken in thinking he heard a fart.

CJT addresses the problem of farting loudly in a public restroom as follows: "My solution: use a handful of loose toilet paper, cover your butt hole and it will muffle the farting; my friends and I call it the 'Buff Muff'!"

Depending upon the company, another strategy is not to cover it up, but to proudly proclaim the fart as your own grand accomplishment and to issue a challenge to the others to outdo that one if they think they can.

### Is it really possible to ignite farts?

The answer to that is yes! However, you should be aware that people get injured igniting flatus. Not only can the flame back up into your colon, but your clothing or other surroundings may catch on fire. A survey done by Fartcloud (the site, alas! is no more) indicates that about a quarter of the people who ignited their farts got burned doing it. Ignition of flatus is a hazardous practice. However, if you want to try it, and you don't have a friend to light your fart for you, you might find it easier to accomplish the job using the Fartlighter.

There have also been cases in which intestinal gases with a higher than normal oxygen content have exploded during surgery when electric cautery was used by the surgeon.

### Why is possible to burn farts?

Farts burn because they contain methane (sometimes) and hydrogen, both of which are flammable gases. (Hydrogen was the same gas that was used in the ill fated Hindenburg dirigible.)

Farts burn with a blue or yellow flame. According to Dr. James L. A. Roth, a blue flame is indicative of the presence of methane in the flatus. Since methane producers are an elite group (only 1/3 of the population), an exclusive club called the Royal Order of the Blue Flame has been established that is open only to them. Mate-in-a-State has video footage of flatus ignition. Observe the color of the flames. These people are not methane emitters.

### Is it possible to light a match with a fart?

No, even strike-anywhere matches have their limits, unless the fart has the consistency of sandpaper! Any fart that rough I would hesitate to call a fart. Also, farts have the same temperature as the body from which they emerge, and aren't hot enough to initiate combustion.

### Are there any books about farting?

There are several! My favorite is the new book, Who Cut the Cheese: A Cultural History of the Fart by Jim Dawson. This book provides an entertaining and thought-provoking history of the fart in literature, language and society. It is very informative and very funny!

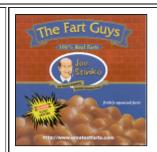
Ben Franklin's classic Fart Proudly is still in print.

There is a collection of suggestive photographs called Who Farted Now? by St. Martin's Press. Most of the photos come from old movies and political shots.

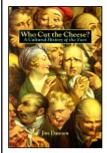
For children, we have the famous The Gas We Pass: The Story of Farts by Shinta Cho, and Amanda Mayer Stinchecum (Translator), and the Canadian picture book, Good Families Don't, by Alan Daniel and Robert N. Munsch, about a highly visible fart infesting a proper middle class family.



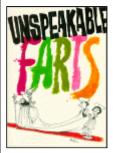
Aside from the other good stuff in Kids Shenanigans,



The Fart Guys are talented guys who bring us songs, skits and sound effects.



Here it is: Who Cut the Cheese?



The Unspeakably Worst Fart Book is an

### Is it possible for a talented person to earn a living through flatulence?

Few people earn their living directly via flatulence. But a friend of mine says that he saw a carnival act in which the performer whistled tunes with his farts, blew out candles on the opposite side of the stage, and sent flames all the way across the stage. A famous performer who earned his living this way was Le Petomane, who performed in France at the beginning of the 20th Century. However, my friend isn't old enough to have seen Le Petomane, so maybe he had a chance to see Mr. Methane. Mr. Methane lays claim to the distinction of being the world's only performing flatulist. Click here to listen to Mr. Methane, whose CD can be purchased at the FartMart.

However, people may also earn a living through the prevention of flatulence (as do the manufacturers and sellers of Beano and other products), through the practice of medicine specializing in the treatment of flatulence and other gastrointestinal problems, by writing books about flatulence (see the question before this one), and through the production and sales of various fart gags such as whoopee cushions and farts in a can.

Fartypants sells a fart filter and a number of other fart-related products.

Ultratech Products, Inc., sells the Flatulence Filter, "an activated carbon air filter disguised as a seat cushion." (This link was discovered by Steve of Boulder, CO.)

### What other fart products are available?

You can visit the FartMart to obtain an astounding number of wonderful fart products, including the famous Crepitation Contest CD, and several other recordings, Pull-My-Finger Fred (a doll that responds with farts and wisecracks), whoopie cushions and a variety of other fart-noise generating products (some of which are quite high tech), some products which produce a fart-like odor, prosthetic poop, fart sludge, and the famous Fart Machine.

You can buy fart-related t-shirts and other apparel at Heptune's very own cafepress.com store!

#### Why do dog and cat farts smell so bad?

A carnivore's protein-rich diet produces relatively small amounts of intensely stinky gas because proteins contain lots of sulfur. A dog's or cat's farts are rarely audible, but the odor is overwhelming. I have asked biologists why dogs and cats generally fart silently, and their theories include: (1) the amount of gas produced is small, but potent, (2) the horizontal

orientation of their gastrointestinal system puts less pressure on the anal opening, so the gas is expelled more slowly, (3) their anal sphincters don't close as tightly as humans' because it takes less force to hold in the contents of the colon -- again because of the horizontal orientation of the gastrointestinal system -- and a loose anus makes less sound, and, my favorite (4) dogs and cats don't feel embarrassed about farting, so their sphincters are more relaxed, leading to less noisy flatulence. My vet tells me that if a cat farts audibly, it could be a sign of pathology.

Mike F. points out that many dog foods are soy-based, so on top of all the above factors, add beans and stand back!

Large herbivorous animals such as cows, horses and elephants, on the other hand, produce vast quantities of relatively non-stinky fart gas. The farts of these animals are noisy and can go on for astoundingly long periods of time. Cows in particular are productive, in part because they swallow huge amounts of air. They need oxygen in their guts for the various protozoa employed there as digestive aids.

### Is it normal for dogs to like the smell of human farts?

Yes, any odor that we find disgusting smells delicious to a dog. Dogs respond to the smell of farts, rotting fish, and carrion the same way we respond to the smell of bacon frying or cookies baking. A dog will often sniff the butt of the farter in order to inhale as much of the odor as possible.

I have heard only one story about a dog being disconcerted by a fart. According to a friend, her brother once delivered a fart so evil that it made the dog sneeze, shake his head, and paw at his nose. That was either an unusual fart or an unusual dog.

#### Do fish fart?

According to our ichthyologist at the University of Guam, fish flatulence per se has not been studied, although people have investigated fish digestion. They find that although most fish have alkaline intestinal environments like our own, coral-eating fish have acidic intestinal contents. The acid serves to dissolve coral skeletal material. Coral has the same composition as Tums (calcium carbonate). One product of the reaction between acid and calcium carbonate is carbon dioxide gas. Therefore, it is logical to assume that coral-eating fish fart a lot.

The other fish probably fart also, for the same reasons that we do.

However, Mike Pulte, a great fish enthusiast, said that he has never seen a fish do it.

I asked our ichthyologist if it were possible that fish gas would go into the swim bladder instead of out the anal opening. He said that modern fish have an air bladder that is

independent of the gastrointestinal tract. The gas comes from enzymatic activity and not from the intestine. Older models of fish have their swim bladder connected to the gastrointestinal tract, but it is attached high up, closer to the mouth than to the other end, and these fish come to the surface and gulp air to fill the bladder. Therefore, we can assume that intestinal gas leaves the fish through the anal opening.

We also pondered the possibility of fish making noise via flatulence, but apparently most fish noises are made through belching rather than farting.

Lisa P., an aquarium enthusiast, reports that she <u>has</u> seen her fish fart: "I have four aquariums and many fish, and I have personally witnessed fish farting! My goldfish used to do it all the time! You'd see a little bubble come out of his anus and stay there, trapped in the mucus of a long string of poop. (Ugh!) And my opaline gourami does it too. Neither of these are coral-eating fish. I have only owned two coral-eating fish so far, but I have never seen either of them fart. It seems most likely to me that much of this gas comes from air swallowed during eating. Also, goldfish have a very simple digestive system and their food is absorbed inefficiently, so possibly the bacteria have more to feed on?"

#### Do turtles fart?

Yes, turtles do fart, and their farts smell incredibly bad, as do the farts of snakes. In fact, it is my opinion, based on personal experience with reptiles and not on any formal research, that many reptiles use farts as a weapon.

Reptile farts smell so bad that sometimes you can tell that one is nearby in the woods, even on a windy day, before you can see the animal. One day I was hiking through the woods in Arkansas with a friend and I told my friend, "I smell a snake fart." A second later, the snake crawled across the path. Astounding but true!

In an article published in the December 2000 issue of *Discover*, "the world's leading expert on snake sounds," Bruce Young of LaFayette College in Easton, Pennsylvania, affirmed that snakes do fart. The sonoran coral snake and the western hook-nosed snake fart with an audible popping sound when disturbed.

### Why do horse farts smell worse than people's farts?

I'm not sure that horse farts smell worse than our farts, but they do smell different. Horses have a different diet from us and different gut microbes, so their farts have a different composition. They also fart more voluminously than humans, and the volume of the gas can be overwhelming if one is unfortunate enough to be near a farting horse indoors.

What kind of animal has the highest worldwide output of flatus?

Believe it or not, the animal that wins this honor is the humble termite. Because of their diet and digestive processes (with more than the usual microbial assistance), they produce as much methane as human industry. Termite farts are believed to be a major contributor towards global warming.

### Is it true that cow farts contribute to global warming?

Recent research has shown that most methane produced by cows and sheep emerges from the mouth rather than the anus. So one could more accurately say that cow and sheep belches are contributing to global warming. New Zealand researchers are investigating methods of breeding methane-free sheep.

### Is there any kind of animal that doesn't fart?

If we define a fart to be an anal escape of intestinal gas, then it follows that animals that lack intestines or an anus cannot fart. Most animals possess intestines and an anus, but there are some that don't. These include:

Sponges: These organisms lack true tissues and organs. They have just a few types of cells organized into a bag with holes in it. Water flows into some holes and out other holes. Sponges are so different from other animals that some biologists think we shouldn't even call them animals.

Cnidaria: This phylum includes the jellyfish, corals, sea anemones and hydra. Their tissues are organized into a bag with a mouth surrounded by stinging tentacles. Food enters the mouth and is digested inside the bag, after which the leftovers are expelled via the same opening. In effect, the same hole serves as both a mouth and an anus. Any gas expelled by a cnidarian would be more appropriately termed a belch rather than a fart, since the animal lacks intestines and separate anus.

Pogonophoran worms: These remarkable animals, who dwell on the sea floor near active volcanic regions associated with mid-ocean ridges, possess no mouth, no stomach, no intestines, and no anus. Apparently they retain their svelte, worm-shaped figures by giving up on eating completely! They survive by means of a mutualistic relationship with chemosynthetic bacteria that live in their flesh. Anyway, these animals cannot possibly fart.

A second category of animals that probably don't fart are animals that live very deep underwater. At high pressures, gas remains in solution rather than forming bubbles. So there is a good chance that all those clams, echinoderms, fish and other animals living near the seafloor don't fart because their farts stay in solution and never emerge as bubbles, even though the animals possess perfectly good intestines and anuses.

# Is it possible to leave a brown spot on your pants because of a fart, and if so, what causes it?

Judging from what I see when I do the family's laundry, I'd say that the answer to the first question is definitely yes.

As for the causes, we must remember that what we call "fart" and what we call "poop" are just end-members of a continuum. That is, we can have a pure fart, or a pure poop, or anything in-between, depending upon the admixture of the two.

If a sample consists mostly of poop with only a small fart component, you get such things as jet-propelled bowel movements and spongy, floating fecal masses (you know, the ones that refuse to be flushed down the toilet -- they keep popping back up).

If the sample consists mostly of fart with only a small poop component, you get what is known as "skid marks" or "fart art." These can also result from inadequate wiping, but the shape of the stain is different in the two cases. Inadequate wiping leads to elongate marks parallel to one's crack, usually with well-defined edges, whereas fart art is generally more circular and has an air-brushed look.

Fart art is most likely to occur if (1) a person is suffering from diarrhea, (2) the person is trying too hard to fart, and (3) the person mistakenly perceives the pressure against his sphincter to be gas pressure rather than liquid pressure. Again, that last situation is most likely to occur if the person is afflicted with diarrhea.

# How can we tell when it's only gas needing to come out, rather than something more serious?

Our ability to distinguish between the need to fart and the need to poop is something that we learn gradually in the process of toilet training and early childhood. With the tactile nerve endings in the rectal area, we can actually feel different sensations depending upon what is waiting by the exit. Of course, sometimes we are fooled, especially if the substance at hand is extremely fluid in nature, and that is when we have the unfortunate accident of venting a squirt of diarrhea rather than an innocent fart.

### What is the best position for farting?

That depends on what you are trying to achieve.

Years and years ago, I read a novel (can't remember which) that had a character in it who was plagued with intestinal gas pain. The character would coax farts out by getting down on all fours with her butt in the air, pressing her thighs against her belly. So perhaps this is the best position for farting if you are having difficulty getting them to come out.

Back when I was in geology field camp, we would sit around the campfire in the evening and ignite our flatus. It was a ritual. When a fart was ready to emerge, the farter would announce, "I have one." And everyone else would intone, "Assume the proper position." The farter would lie back on his or her shoulders with back propped up, head between the knees, and posterior in the air. The purpose was to give the person with the match easy access to the critical vent.

Expert farters of my acquaintance often shift their weight onto one leg and lift the other slightly when farting. I assume that this position is adopted less to aid in the farting process than to signal that a fart is imminent.

### Why do chicks always deny farting?

I suppose I should start by saying that only <u>some</u> chicks deny farting. The rest of us acknowledge our gaseous accomplishments with pride.

However, a great many sisters do deny farting. The reason is that they have been misled into thinking that farts are not ladylike. It is a great mistake to say that farting is not ladylike. The reason is that all people fart, including ladies. Anything that ladies do is by definition ladylike, and that includes the emission of anal gases.

Is is possible that, by inhaling other people's farts all day long, my own farts will smell more?

No, inhaled farts would go into the lungs rather than into the digestive system, and would simply be exhaled again, although it might be possible that some of the fart components might be absorbed into the blood. If you wanted to benefit from other people's farts in the way you describe, you would have to swallow them somehow.

Is it possible to get stoned after inhaling two or three farts in a row?

I am not aware of any intoxicating agents in flatus. However, most farts contain very little oxygen, and you may experience dizziness if you are inhaling overly concentrated fart essence, simply from lack of oxygen. On the other hand, if you are inhaling farts in the open air and are breathing rapidly in order to inhale as much fart as possible, you may be hyperventilating, which also induces dizziness.

Then there is the intrinsic hilarity factor: farts are so funny in both sound and odor that you might feel high just from the basic entertainment value of farts.

Is it possible for a fart to kill you?

A great many of you have asked if farts can be fatal, or if you can die from smelling a particularly bad fart. My initial response to this question was "no," but I thought I'd better ask a doctor. So now it is official, the medical opinion I received is no, a fart can't kill you.

However, if you really work hard at it, you can manage to kill yourself with just about anything. I recently read of a man who hooked up his nose to his anus with a system involving a gas mask, rubber tubing and a hollow wooden post. He died of suffocation. This story comes from the Darwin Awards, and I personally cannot attest to the overall veracity of their stories.

The story of the bed-bound obese man who died from inhaling his own flatus (and whose farts almost killed the paramedics) is an urban legend that has been in circulation for some time.

But according to Buzzbomb43, whom I quote: "In World War Two, the Air Force estimates that around 1000 to 2000 airmen were killed because of flatulence. The reason is B-17 bombers were not pressurized, so when bomber crews operated around 20,000 feet, the gas would expand and rupture their intestines." Now, that is a nasty way to go!

### Can excessive farting cause impotence?

That depends on the tolerance level of the person with whom one is trying to be potent!

Fortunately for humans, farting doesn't cause tissue damage. Other animals aren't so lucky.

Soldier termites can actually turn themselves into bombs by detonating themselves via the explosive release of gas and feces, a process called "autothysis."

### Is it possible to inhale (suck in air) via one's anal opening?

Yes, but it's a rare talent. The great early 20th Century French flatulist, Le Petomane, was able to do this, and in fact was able to suck up an entire bowlful of water (just the water, not the bowl) into his colon and expel it again with considerable force. By sucking in large quantities of air, he was able to perform lengthy shows on stage, and could imitate musical instruments, farm animals, and bird songs, whistle melodies, and play the ocarina. His productions were said to be virtually odorless, which is to be expected from air obtained directly from the outside.

Here is a message I received regarding the skill of inhaling via the anus:

"i would just like you to know that i am part of a trio, who can suck in air in our anal openings. we are somewhat air-bandits. we can let the longest farts you have ever heard. our record holder, chad, stands at 24 sec. the record for most farts in a row is derek, at 492. and i, robert, have earned such nicknames as: Mad Crapper, gurglemeister, and old wetful. We have followed Le Petomane example, and have mastered the art of farting."

Jason W. says, "I am a 16 year old guy that is a part of a 3-man fart on command group. We get together every Saturday night and practice our talent to songs with a good beat. We

accomplish this by getting on our hands and knees, completely relaxing, and our butt hole just opens up and air just seeps into our colons. We then get into position and let them rip. We can so far play a song called "THE EYE OF THE TIGER" (Rocky 3 theme song). We came across another group of 4 guys that can do this during the winter of 2001. We started to get together with them more frequently, and now we have a full fledged band going all on farting...We are going to try to make a CD on some songs we know, but no one wants to let us...I personally have let a fart go for about 75 seconds. On average each Saturday night we let off about 1000 farts EACH! The only problem with flatulating when we want is that now 2 of us can't help but sucking in air through our anus when we sit down." Jason has also provided the following instructions for people who would like to acquire this skill:

- 1) Get a pillow and a soft surface.
- 2) Place your ear on the pillow with your head turned sideways.
- 3) Put your butt up in the air, bringing your knees as close up to your head as possible. This relaxes your anal opening.
- 4) Once you're relaxed enough, you should feel a strange sensation...this is air traveling into your colon.
- 5) Through practice you will be able to do this by just sitting down.

Adam reports that a student at his high school, known as "The King" could fart "God Save the Queen" by alternately inhaling and exhaling through his anus. The students referred to the inhaling process as "input."

# Is it possible to swallow smoke and then fart it out your anus?

No, smoke consists of solid particles suspended in air. When such a mixture enters the digestive system, the solids condense on the walls and other objects in the gut, or go into suspension in liquids in the system. However, for people capable of inhaling through the anus, it is possible to smoke a cigarette with the anal opening and then blow the smoke back out.

# What causes the burning sensation that sometimes accompanies a fart?

This is generally caused by a recent meal of hot peppers or related spices. The oils associated with these foods remain intact and active all the way through one's gastrointestinal system.

## If you fart in the bathtub, is the water polluted and should you refill the tub?

As long as what comes out is only fart and no poop, your bath water should not be significantly polluted. Most of the gas just bubbles up and contaminates the air rather than the water.

# Is it true that a woman can fart out of her, shall we say, frontal opening, and if so, where does the gas come from?

Yes, it is true! The gas that emerges is simply trapped air, for there is no gas production in the genitalia of a woman. The air can enter because the system is open to the outside. This highly specialized kind of fart is sometimes called a queef. This occurs especially frequently during the sex act, when air in the genitalia gets compressed and is forced out at high pressure.

In the British Isles, this phenomenon is known as a "fanny fart." Whereas, in the United States, "fanny" refers to the buttocks, in Great Britain, the word pertains to the female pudenda.

### Can a man fart out of his genital opening?

I have asked various men this question and they all deny it emphatically. However, elrondh contributed the information that under certain rare and artificially-induced circumstances, a man might pass gas through his penis. In this case, the man's bladder had been inflated for a medical procedure, the air introduced via catheter inserted through the urethra. This gas escaped during later attempts to urinate, "accompanied by a brief but sharp burning sensation."

### Is it possible to capture a fart in a jar and save it for later use?

It should be theoretically possible to do this, but there would be lots of logistical problems. I would suggest using a plastic bag instead of a jar. You might try the following as a science fair experiment:

Fart into several plastic bags and seal them carefully. Then fill several other plastic bags with ordinary air. Wait 24 hours. Then get volunteers to smell the contents of the bags to see if they can correctly identify which ones contain the farts. This should tell you if it is possible to store a fart in any useful way.

Malachi and Megaera have come up with a way to capture a fart in a jar. They say to do it in the bathtub while bathing. Fill the jar with bath water and then hold it with the open end downward. Lean back in the bathtub so that your fart bubbles will emerge in front of you rather than behind you where you can't see them. Catch the bubbles in the jar, and put the lid on the jar while it's still underwater. This way, you capture a fairly pure fart uncontaminated by atmospheric air. To enjoy your captured fart to the fullest extent, make sure that your jar does not already smell like whatever was in it before, like pickles or peanut butter.

Meep wrote to say that her fiancé was an expert fart collector at the age of ten. He used Kodak film canisters, and kept them on a shelf in his room. Experiments on his mother proved the efficacy of his method.

For those of you who are interested in professional-grade fart collecting, you need to know that \*Suarez et al. (1998) reported that hydrogen sulfide and other sulfur-containing (odor-causing) fart gases "rapidly reacted with glass, some plastics, and rubber, but were stable in polypropylene..." so choose your containers with care.

\*Suarez, F.L., J. Springfield, and M.D. Levin (1998) Identification of gases responsible for the odour of human flatus and evaluation of a device purported to reduce this odour; *Gut*, v. 43: 100-104.

### Is it weird to enjoy farting?

It is not unusual to enjoy farting. I believe that enjoyment of farting is a healthy attitude, since everyone has to fart. If a person is farting to the extent that it creates problems and unhappiness, then a visit to a doctor is in order.

### Is it common for people to enjoy smelling their own farts?

I believe that it is not only common, it is universal. A person farts and then thinks, at least subconsciously, "Wow, I made that!"

### Can farting be considered sexy?

Everything imaginable, and many things not imaginable, can be considered sexy by humans. However, the female southern pine beetle exudes a pheromone called frontalin in her flatus that not only serves to attract males but acts as a general gathering call to both males and females of her species. Her farts are an invitation to an orgy. Unfortunately for her, her frontalin-laden farts also attract predators.

#### What color is a fart?

Farts are, alas, colorless. All of the gases that make up farts have no inherent color. But just think of how interesting it would be if farts were bright orange like nitrogen dioxide gas! It would certainly take the mystery out of who farted.

Never-the-less, a high-personality gas like fart gas suggests color to people. Some people envision farts as brown, others as green or yellow. I have always thought of farts as brown, presumably because poop is brown. When someone farts in our car, that person might say, "You better not breathe through your mouth for awhile, or your teeth will turn brown."

I knew a toddler who used to draw pictures of farts as yellow rectangles full of holes, like a slice of Swiss cheese. She thought of farts as yellow, and said that she knew they were rectangular because she could feel the sharp corners scraping against her on the way out!

Ernie C. suggests that if farts were visible, they would look like pork rinds.

Helen says, "It always seemed to me like farts were lumps of coal, black in color and irregularly spherical in shape."

### Do other people smell a fart better than the farter?

The fart should smell just as much for the person who created it as it does for other people. However, the farter is somewhat protected by having the fart propelled away from his body in a direction opposite to his nose. Farting upwind nullifies this advantage.

# Why is it that when you scratch your ass through two layers of clothing (your underwear and your jeans) your fingers still stink?

As pointed out by Barb F., who contributed the term to the fart thesaurus, a fart can be regarded as "aerosolized poop," which means that microscopic fragments and droplets of poop are actually distributed throughout the gaseous matrix of the fart. When delivered from the anus with some force, the components of the fart can penetrate one's clothing and these tiny particles can be trapped in the fibers of the cloth. The particles are transferred to your fingers and then your nose when you scratch and sniff.

#### Can farts be filtered through your underwear or clothing?

The term "filtering" suggests that some components pass through and others are trapped. This is certainly the case to some extent. Very likely most of the gaseous particles pass through unimpeded (although some of the odor-causing molecules adhere to cloth), whereas some of the microscopic liquid and solid droplets are trapped in the cloth. The efficiency of clothing as a filter could be estimated by farting while wearing an increasingly large number of layers of underpants, with the assistance of a willing odor judge. The farter could also smell each successive layer of underwear to see if the fart odor diminished from interior to exterior layers.

### Why is it sometimes possible to taste farts?

The sense of taste detects substances that are either liquid or dissolved in liquid. You can taste a fart when the fart's constituent molecules go into solution in your saliva.

# Do fart particles disperse in the air and float around until they hit something and then stick to it?

The ultimate fate of fart particles depends on the nature of the particles. Gas molecules mostly mix into the atmosphere, although some may react chemically to form new substances. Aerosolized particles of liquid and solid poop probably do condense on surfaces. Most of these particles are polar (with a positively charged end and a negatively charged end) and are attracted to other polar substances or charged surfaces like a monitor screen. Other fart particles condense on microscopic water droplets in the air if the humidity is very high (as in a bathroom), and some particles go into solution in water.

### Is it possible to have bloody farts?

Yes, this can happen if you are suffering from an anal fissure, a split in the wall of the colon. It can also happen to a woman who experiences a queef during her period.

### Why do farts seem to follow the farter?

I'm sure that everyone has experienced this phenomenon, in which one delivers oneself forth of a silent but potent gaseous emission and then steps rapidly away, only to have the fart cling to one's person. Part of the reason for this annoying characteristic of farts is the turbulence that follows in the wake of a moving person. The fart "slip streams" or is actually pulled along in the farter's direction by the air currents behind the person.

Another factor is that part of the fart is caught in the farter's clothing, and diffuses out slowly after the main part of the emission has dispersed.

### Why do farts smell so much worse in a shower than anywhere else?

There are several factors. First of all, a shower is a small, enclosed space, so the fart gas is more concentrated, and the high turbidity of the air in the shower circulates the gas through the space effectively. Secondly, the high humidity and high temperature conditions in the shower enhance a person's sense of smell and taste. The farts don't actually smell worse, it's

just that we can smell them better than usual.

Similar conditions prevail in the bathtub.

### What would happen if someone farted on Venus?

If Venus's surface temperature were a mere 200 to 300 degrees Fahrenheit, liquid water could exist there because of Venus's extremely high atmospheric pressure. But the temperature on Venus is almost 900 degrees Fahrenheit. Because humans are mostly water, a person would not simply emit gas on Venus, but would become gas, a whole-body fart. Venus already has a lot of sulfur compounds in its atmosphere, so a fart on Venus probably wouldn't even produce much of a smell.

# If you were in space without a suit, would a fart have the energy to propel you forward?

Yes, a fart should propel you forward, since there is virtually no opposing force in the form of friction or gravity to counteract the force of the fart.

# Is it possible to freeze farts, and would they still be smelly after they are defrosted?

The water vapor component of farts would freeze quite readily, but to freeze the entire fart would require high pressure and low temperature conditions such as that used to produce dry ice. The fart's composition would be unchanged by the process, and hence would still be smelly upon reversion to the gaseous state.

### Are farts acid, neutral or alkaline?

Farts tend to be rich in carbon dioxide, and may also contain hydrogen sulfide, the substance primarily responsible for the stench of farts. If a fart were to be dissolved in water, carbon dioxide would interact with water to produce carbonic acid, and hydrogen sulfide would make hydrosulfuric acid. These are both weak acids, so farts (at least when in solution) are mildly acidic.

### Is it possible for a fart to rip your underwear?

This is unlikely, because most underwear is made of material with a fairly high tensile strength, meaning that it can endure a certain level of extensional stress without brittle failure.

Furthermore, the porous nature of underwear fabrics allows much of the fart's force to pass through the spaces rather than to stress the fabric.

#### Where does the word "fart" come from?

According to Eric Partridge in his excellent book of word origins (*Origins: A Short Etymological Dictionary of Modern English*), our word *fart* comes from the Old English word *feortan*, presumably of echoic origin, meaning that the word was chosen to sound like the object named.

# When it is cold outside and you fart, can you see it like you can see your breath?

Now, that's an interesting idea! My guess would be yes, since farts are nice and moist like our breath, but this is one question that I'm not in a position to answer. I live in the tropics, and it never gets cold here.

Several people have tried the experiment and have written to tell me the results. Most people said that they could indeed see their farts, but one person said that he couldn't see it even with his pants off.

Here is what anywhere 32 reported: "In the boys' locker room after morning water polo practice it was cold out and one of the players only had on his speedo and let out a fart. About four of us saw it and couldn't contain our laughter for the rest of the day."

John of the UK said, "Farts expelled in cold air leave what can only be described as a long bushy

tail. This is quite funny waiting on a train station platform on a cold dark frosty morning. A person will move away from everyone to a safe distance, and then release a long quiet fart, only to have a sudden and dramatic long bushy white tail coming from their anus; it goes down a little way and slowly curves up ending in a point, just like a dogs tail!"

### Is there such a thing as a fossil fart?

Fossil farts are extremely rare, but they have recently been discovered to exist by University of Massachusetts at Amherst biologist Lynn Margulis and her colleagues. The scientists had noticed that fossils of a particular species of termite, trapped in amber, were always accompanied by bubbles of gas. The scientists drilled into the trapped bubbles and analyzed the gases inside, and found them to be rich in methane and carbon dioxide. They had also found gut microbes fossilized within the termites' intestines. Their hypothesis is that the microbes continued to live and digest the termite's last meal, even after the termite had been trapped in tree sap and died. These intestinal gases then seeped out of the termite, forming

bubbles in the sap. Eventually the sap hardened into amber, containing fossil termites, fossil microbes, and fossil farts.

Author: Brenna Lorenz