

1. Mark your confusion.
2. Show evidence of a close reading.
3. Write a 1+ page reflection.

Everything I Thought I Knew About Nasal Congestion Is Wrong

Start with this: You really have two noses.

Source: Sarah Zhang, *The Atlantic*, October 30, 2023

Having caught a cold every month since my kid started day care, I've devoted a lot of time recently to the indignity of unclogging my nose. I'm blowing, always. I have also struck up an intimate acquaintance with neti pots and a great variety of decongestants. (Ask for the stuff that actually works, squirreled away behind the counter.) And on sleepless nights, I've spent hours turning side to side, trying to clear one nostril and then the other.

Nasal congestion, I've learned in all this, is far weirder than I ever thought. For starters, the nose is actually two noses, which work in an alternating cycle that is somehow connected to our armpits.

The argument that humans have two noses was first put to me by Ronald Eccles, a nose expert who ran the Common Cold Centre at Cardiff University, in Wales, until his retirement a few years ago. This sounds absurd, I know, but consider what your nose—or noses—looks like on the inside: Each nostril opens into its own nasal cavity, which does not connect with the other directly. They are two separate organs, as separate as your two eyes or your two ears.

And far from being a passive tube, the nose's hidden inner anatomy is constantly changing. It's lined with venous erectile tissue that has a "similar structure to the erectile tissue in the penis," Eccles said, and can become engorged with blood. Infection or allergies amplify the swelling, so much so that the nasal passages become completely blocked. This swelling, not mucus, is the primary cause of a stuffy nose, which is why expelling snot never quite fixes congestion entirely. "You can blow your nose until the cows come home and you're not blowing that swollen tissue out," says Timothy Smith, an otolaryngologist at the Oregon Health & Science University's Sinus Center. Gently blowing your nose works fine for any mucus that may be adding to the stuffiness, he told me. But decongestants such as Sudafed and Afrin work by causing blood vessels in the nose to shrink, opening the nasal passages for temporary relief.

In healthy noses, the swelling and unswelling of nasal tissue usually follows a predictable pattern called the nasal cycle. Every few hours, one side of the nose becomes partially congested while the other opens. Then they switch, going back and forth, back and forth. The exact pattern and duration vary from person to person, but we rarely notice these changes inside our noses.

"When I tell people about the nasal cycle, most people are not aware of it at all," says Guilherme Garcia, a biomedical engineer at the Medical College of Wisconsin. I certainly wasn't, and I have been breathing through my nose only my entire life. But the idea made sense as soon as I consciously thought about it: When I'm sick, and extra swelling has turned partial congestion into complete congestion, I do tend to feel more blocked on one side than the other.

Once you're aware of the nasal cycle, you can control it—to some extent. In fact, when I was turning from side to side during my sleepless nights, I was unknowingly activating receptors under my

arm, which open the opposite side of the nose. This could be an age-old survival reflex: When we lie down on our right side, our left nostril is farther from the ground and likely less obstructed. Yogis have learned to take advantage of this, using a small crutch under the arm, called a yoga danda, to direct breathing to one nostril or the other. And an online hack for stuffy noses suggests squeezing a bottle under the opposite arm. The effect is not instantaneous, though. When I tried this recently, my arm got tired before my nose unclogged. And when I tried again with an old crutch I had from a knee injury, it took several minutes, by which time I'd already reached for a tissue out of impatience and habit.

No one knows exactly why humans have a nasal cycle, but cats, pigs, rabbits, dogs, and rats all have one too, according to Eccles. One hypothesis proposes that this cycle helps guard against pathogens. When the venous erectile tissue shrinks, antibody-rich plasma is squeezed out onto the inner lining of the nose. Each cycle might replenish the nose's defense. Eccles also pointed out that upper-respiratory viruses seem to prefer temperatures just below body temperature; when one side of the nose becomes partially congested, it might warm up enough to ward off viruses. Or, he said, the cycle allows one half of the nose to rest at time. Unlike our eyes, ears, and mouths, noses have to function 24 hours a day, every day, constantly filtering and warming air for the delicate tissue of our lungs. The nose's job might not sound that hard, but consider what it has to do: The air we breathe is maybe 70 degrees Fahrenheit and 35 percent humidity, Smith said. "By the time that air goes in my nose and gets back to my nasopharynx—which is, what, maybe three to four inches—it is 98.7 degrees Fahrenheit and 100 percent humidity." The nose is quite the powerful little HVAC system.

But it's fallible, too. Our noses don't measure airflow directly; instead, they rely on cold receptors that are activated when cool air passes by. These cold receptors can be tricked by, say, menthol. Eccles has found that people given menthol lozenges can hold their breath longer, possibly because the minty coolness fools them into thinking they are still getting air. And it's why Vicks VapoRub might make congestion *feel* better, despite having no positive effect on the opening of the nasal passages. The opposite may happen in a baffling condition called empty-nose syndrome, in which a very small proportion of patients who have surgery to improve airflow in their noses end up feeling completely clogged—possibly because of damage to cold receptors and other changes in sensation. The lack of a feeling of airflow can be so disturbing that these patients feel like they're suffocating, even though their noses are perfectly unobstructed.

To a lesser extent, we are all unreliable narrators of our nasal congestion. When patients go to be examined, a doctor might see that one side of their nose is clearly more swollen than the other—but it's not necessarily the same side that the patient *feels* is more congested. "This still baffles clinicians," Smith told me. Other factors, such as temperature, must play a role. The inner workings of the nose are complicated and still mysterious. I'll be thinking about all of this the next time I'm lying awake at night, once again sick, once again congested.

Possible Response Questions

- What are your thoughts about having "two" noses? Explain.
- Did something in the article surprise you? Discuss.
- Pick a word/line/passage from the article and respond to it.
- Discuss a "move" made by the writer in this piece that you think is good/interesting. Explain.