

Breathe easy

Your nose knows more than you might imagine.
Here's how to keep it happy and healthy.

By Leslie Garcia,
The Dallas Morning News

What helps us smell tomatoes at a farmers market, taste the corny dogs at the state fair? What reminds us to call the doctor when the air gets a bit stuffiness-inducing?

Our nose.

It helps us breathe, it helps us smell, it helps us taste.

"It is important in terms of quality of life," says Dr. Thomas Hung, an otolaryngologist in private practice at Medical City Dallas.

"You're miserable when you can't breathe through your nose. It's amazing how unpalatable food becomes when you can't smell."

Makes us reach for a tissue at the mere thought. Or at least have more respect for that protuberance — be it ski-jump, upturned, bulbous or button — in the middle of our faces.

Read on and see why we no longer look at a nose in quite the same way.

WHY DOES YOUR NOSE RUN?

Allergies and infections are the two most common causes. Viruses stimulate the nose to secrete more mucus, thus leading to the call for a tissue.

With allergies, the allergen (be it cats, dust, etc.) stimulates histamines to be released from cells lining the nasal cavity.

Mucus glands are thus stimulated, secreting more mucus. The histamine also causes blood vessels to dilate, which could cause congestion, not running.

Throughout history, theories of runny noses have included:

- Your brain must be liquefying. This courtesy of the second-century Greek physician Galen, whose theory, at the time, made sense because so many people died of colds.
- You must be lacking sexual self-restraint. This was from a 1920s Baltimore physician, who said it was the body's form of punishment.

THE TRUTH ABOUT MUCUS

Mucus membranes produce between a pint and a quart of mucus a day. We don't tend to notice the amount (thank goodness) because stomach acids dissolve it. But if a virus attacks these tissues, the mucus loses much of its water content (making it thicker), and it flows more slowly.

Mucus changes color depending on what's going on in your body. But contrary to what you may have heard, green or yellow mucus doesn't necessarily mean you have a bacterial infection. It could be viral.

"The truth is that mucus turns colors because of an increase in leukocytes, which are responsible for fighting infections," Hung says.

That increase, and the byproducts of leukocytes, give mucus a green, yellow or brown color.

Olfactory bulb
This is under the front part of your brain, just above the nasal cavity. It sends signals to parts of your brain, which interpret what type of smell the odor molecules are.

Olfactory epithelium
Located on the roof of the nasal cavity, this contains receptors that are sensitive to odor molecules that travel through the air.

Nasal cavity
This air-filled space behind the nose connects with the back of your throat. Only the roof of your mouth separates the nasal cavity from the inside of your mouth.

Sinuses
These air-filled pockets help lighten the weight of the otherwise heavy skull. They help filter, moisten and warm the air we breathe before it gets to the lungs.

Section of the lining of the nose magnified.

Septum
This cartilage wall dividing the nostrils starts deep within the skull.

NOSE FACTS

- During a normal day, we breathe nearly 25,000 times.
- Many people inhale mainly through one nostril at a time, alternating nostrils every one to three hours.
- About 80 percent of what we taste is affected by what we smell.
- When we're hungry, our sense of smell becomes stronger.
- After a year, we can recall smells with 65 percent accuracy. By comparison, after only three months, visual recall of photos drops to 50 percent.
- We have about 5 million olfactory receptor cells. Rats have 10 million, rabbits 20 million and bloodhounds close to 220 million.
- We smell many more odors than our brains register. Only when an aroma pleases, irritates or reminds us of something do we take notice.
- When we breathe, our noses warm the inhaled air to our body temperature and humidify it to 100 percent saturation. The moistness and dampness help keep the air from damaging our lungs.
- Nose jobs — excuse us, rhinoplasties — hail from the Renaissance. The Catholic Church excommunicated the most celebrated surgeon because he was believed to be tampering with God's work.
- Describing a smell is infinitely more difficult than describing a sound or a scene. One reason: The area of the brain that deals with odor competes with that used for language.
- Anosmia is the inability to smell; phantosmia is smelling something that isn't really there.
- Last year, about 300,000 rhinoplasties were performed in the United States.

SNORING FACTS

- About a fourth of adults are habitual snorers. Why? Being overweight can contribute to it. So can bulky throat tissue and poor muscle tone in the nose and throat. But we're interested in these nose-related reasons:
- When your nose is blocked or stuffy, you need extra effort to pull air through it. This makes a vacuum in the throat, pulling together the throat's floppy tissues. Voilà! Snoring.
- Deformities in the nasal septum, the wall separating your nostrils, can cause an obstruction that leads to snoring.



KEEPING THE NOSE HEALTHY

Nasal irrigation is a simple way to minimize the effects of colds, allergies and other nasal conditions.

Nasal irrigation

Regular flushing of the nose with a salt-water solution, using a neti pot, left, was originally developed in India.

Directions:

1. Lean over sink, turn head to side.
2. Insert pot spout into one nostril, tip pot so solution flows into one nostril, out the other; insert pot into other nostril and repeat.
3. Blow out through both nostrils to clear nose.

SOURCES: MERCK MANUAL, INTELIHEALTH, HEALTHEGOODS.COM, MCT

Questions for an ear, nose & throat doctor

We had a few delicate questions about noses. Here's how Dr. Thomas Hung, a physician in private practice at Medical City Dallas, answered them.

Q: What is it about the nose that interests you?

A: The nose has an aesthetic quality. When we look at people, one of the first things we're attracted to is their nose. We're sensitive to picking up the symmetry, so we focus on it. It gives the face contour, character, yet also has a function in terms of breathing, as well as taste.

Q: Why do our noses run when we cry?

A: We have tear ducts in the corners of our eyes, close to the nose, which drain tears from the eyes into the nose. Thus, when we cry, some tears spill over and run down our face, but tears also drain into the nose, thus making our nose run.

Q: What's the best way to stop a nosebleed?

A: Sit upright and pinch your nostrils shut for 15 minutes. No peeking. Then let go. If your nose continues to bleed, pinch again

for 15 minutes. If it's still bleeding, perhaps go to the emergency room. People on blood thinners and those taking aspirin daily, where the clotting ability is diminished, can have a nosebleed for hours.

Q: What happens when we smell?

A: The molecules of a certain scent make their way to the top of the nose. They go straight up to where the nose meets the brain, to the small perforations where the olfactory nerve endings sit. The smell molecules trigger these to fire. Then the molecules go to the part of the brain responsible for smell in the frontal lobe, where you recognize, "Oh! That's a rose." Or, "That's gasoline."

Q: How can we keep our noses healthy?

A: For allergies, once you recognize you have them, especially if they're seasonal, get yourself on medications. Antihistamines work best before exposure. It's almost too late once you get the runny nose. I generally recommend a regimen of nasal humidification, more frequently in the winter. ... It takes a little getting used to, but once you do it, it feels pretty good.

SOURCES: SCI.RUTGERS.EDU; WWW.STJOHNS.ORG; WWW.ENTNET.ORG; DR. THOMAS HUNG; "THE NOSE: A PROFILE OF SEX, BEAUTY AND SURVIVAL" (ATRIA BOOKS, \$24)

Illustration by Michael Hogue, The Dallas Morning News