NASAL POLYPS

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FIRST PERSON: ONE WOMAN'S 8-YEAR JOURNEY WITH NASAL POLYPS Page 14

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CARING FOR YOU: MEDICATIONS AND OTHER THERAPIES PAGE 22



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DUPIXENT (dupilumab)Injection 300mg

THE NON-SURGICAL TREATMENT THAT HELPS YOU:

DUNDR FROM SCRATCH WITH LESS NASAL POLYPS

- REDUCES CONGESTION AND NASAL POLYP SIZE
- CAN IMPROVE SENSE OF SMELL IN AS LITTLE AS 3 DAYS
- CAN REDUCE ORAL STEROID USE
- IS AN ALTERNATIVE TO SURGERY

*Don't stop taking your corticosteroid medicines unless instructed by your doctor.

Ask your doctor how **DUPIXENT** can help you **DU MORE** with less nasal polyps.

sanofi REGENERON

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INDICATION

DUPIXENT is a prescription medicine used with other medicines for the maintenance treatment of chronic rhinosinusitis with nasal polyposis (CRSwNP) in adults whose disease is not controlled. It is not known if DUPIXENT is safe and effective in children with chronic rhinosinusitis with nasal polyposis under 18 years of age.

IMPORTANT SAFETY INFORMATION

Do not use if you are allergic to dupilumab or to any of the ingredients in DUPIXENT.

Before using DUPIXENT, tell your healthcare provider about all your medical conditions, including if you:

- have eye problems.
- have a parasitic (helminth) infection.
- are scheduled to receive any vaccinations. You should not receive a "live vaccine" right before and during treatment with DUPIXENT.
- are pregnant or plan to become pregnant. It is not known whether DUPIXENT will harm your unborn baby.
 A pregnancy registry for women who take DUPIXENT during pregnancy collects information about
 - the health of you and your baby. To enroll or get more information call 1-877-311-8972 or go to https://mothertobaby.org/ongoing-study/dupixent/.
- are breastfeeding or plan to breastfeed. It is not known whether DUPIXENT passes into your breast milk.

Tell your healthcare provider about all the medicines you take, including prescription and over-the-counter medicines, vitamins and herbal supplements.

Especially tell your healthcare provider if you are taking oral, topical, or inhaled corticosteroid medicines or if you have CRSwNP and asthma and use an asthma medicine. **Do not** change or stop your corticosteroid medicine or other asthma medicine without talking to your healthcare provider. This may cause other symptoms that were controlled by the corticosteroid medicine or other asthma medicine to come back.

DUPIXENT can cause serious side effects, including:

- Allergic reactions. DUPIXENT can cause allergic reactions that can sometimes be severe. Stop using DUPIXENT and tell your healthcare provider or get emergency help right away if you get any of the following signs or symptoms: breathing problems or wheezing, swelling of the face, lips, mouth, tongue, or throat, fainting, dizziness, feeling lightheaded, fast pulse, fever, hives, joint pain, general ill feeling, itching, skin rash, swollen lymph nodes, nausea or vomiting, or cramps in your stomach-area.
- **Eye problems.** Tell your healthcare provider if you have any new or worsening eye problems, including eye pain or changes in vision, such as blurred vision. Your healthcare provider may send you to an ophthalmologist for an eye exam if needed.
- Inflammation of your blood vessels. Rarely, this can happen in people with asthma who receive DUPIXENT. This may happen in people who also take a steroid medicine by mouth that is being stopped or the dose is being lowered. It is not known whether this is caused by DUPIXENT. Tell your healthcare provider right away if you have: rash, chest pain, worsening shortness of breath, or a feeling of pins and needles or numbness of your arms or legs, or persistent fever.
- Joint aches and pain. Some people who use DUPIXENT have had trouble walking or moving due to their joint symptoms, and in some cases needed to be hospitalized. Tell your healthcare provider about any new or worsening joint symptoms. Your healthcare provider may stop DUPIXENT if you develop joint symptoms.

The most common side effects in patients with chronic rhinosinusitis with nasal polyposis include injection site reactions, eye and eyelid inflammation, including redness, swelling, and itching, sometimes with blurred vision, high count of a certain white blood cell (eosinophilia), trouble sleeping (insomnia), toothache, gastritis and joint pain (arthralgia).

Tell your healthcare provider if you have any side effect that bothers you or that does not go away. These are not all the possible side effects of DUPIXENT. Call your doctor for medical advice about side effects. You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/ medwatch, or call 1-800-FDA-1088.

Use DUPIXENT exactly as prescribed by your healthcare provider. It's an injection given under the skin (subcutaneous injection). Your healthcare provider will decide if you or your caregiver can inject DUPIXENT. **Do not** try to prepare and inject DUPIXENT until you or your caregiver have been trained by your healthcare provider.

Please see accompanying Brief Summary of Important Patient Information.

What is DUPIXENT?

DUPIXENT is a prescription medicine used:

- with other medicines for the maintenance treatment of chronic rhinosinusitis with nasal polyposis (CRSwNP) in adults whose disease is not controlled. DUPIXENT works by blocking two proteins that contribute to a type of inflammation
- that plays a major role in chronic rhinosinusitis with nasal polyposis. • It is not known if DUPIXENT is safe and effective in children with chronic
- rhinosinusitis with nasal polyposis under 18 years of age.

Who should not use DUPIXENT?

Do not use DUPIXENT if you are allergic to dupilumab or to any of the ingredients in DUPIXENT. See the end of this summary of information for a complete list of ingredients in DUPIXENT.

What should I tell my healthcare provider before using DUPIXENT? Before using DUPIXENT, tell your healthcare provider about all your medical conditions, including if you:

· have eye problems.

- have a parasitic (helminth) infection
- are scheduled to receive any vaccinations. You should not receive a "live vaccine" right before and during treatment with DUPIXENT.
- · are pregnant or plan to become pregnant. It is not known whether DUPIXENT will harm your unborn baby.
- Pregnancy Exposure Registry. There is a pregnancy exposure registry for women who take DUPIXENT during pregnancy. The purpose of this registry is to collect information about the health of you and your baby. Your healthcare provider can enroll you in this registry. You may also enroll yourself or get more information about the registry by calling 1-877-311-8972 or going to https://mothertobaby.org/ongoing-study/dupixent/.
- · are breastfeeding or plan to breastfeed. It is not known whether DUPIXENT passes into your breast milk.

Tell your healthcare provider about all of the medicines you take including prescription and over-the-counter medicines, vitamins, and herbal supplements.

Especially tell your healthcare provider if you:

- · are taking oral, topical, or inhaled corticosteroid medicines
- have asthma and use an asthma medicine
- have CRSwNP, and also have asthma

Do not change or stop your corticosteroid medicine or other asthma medicine without talking to your healthcare provider. This may cause other symptoms that were controlled by the corticosteroid medicine or other asthma medicine to come back

How should Luse DUPIXENT?

· See the detailed "Instructions for Use" that comes with DUPIXENT for information on how to prepare and inject DUPIXENT and how to properly store and throw away (dispose of) used DUPIXENT pre-filled syringes and pre-filled pens.

- Use DUPIXENT exactly as prescribed by your healthcare provider.
- · Your healthcare provider will tell you how much DUPIXENT to inject and how often to iniect it.
- · DUPIXENT comes as a single-dose pre-filled syringe with needle shield or as a pre-filled pen.
- DUPIXENT is given as an injection under the skin (subcutaneous injection).
- If your healthcare provider decides that you or a caregiver can give the injections of DUPIXENT, you or your caregiver should receive training on the right way to prepare and inject DUPIXENT. Do not try to inject DUPIXENT until you have been shown the right way by your healthcare provider.
- If you miss a dose of DUPIXENT, give the injection within 7 days from the missed dose, then continue with the original schedule. If the missed dose is not given within 7 days, wait until the next scheduled dose to give your DUPIXENT injection.
- · If you inject too much DUPIXENT (overdose), get medical help or contact a Poison Center expert right away at 1-800-222-1222.
- · Your healthcare provider may prescribe other medicines to use with DUPIXENT. Use the other prescribed medicines exactly as your healthcare provider tells you to.

What are the possible side effects of DUPIXENT? DUPIXENT can cause serious side effects, including:

- Allergic reactions. DUPIXENT can cause allergic reactions that can sometimes be severe. Stop using DUPIXENT and tell your healthcare provider or get emergency help right away if you get any of the following signs or symptoms: breathing problems or wheezing, fast pulse, fever, general ill feeling, swollen lymph nodes, swelling of the face, lips, mouth, tongue,
- or throat, hives, itching, nausea or vomiting, fainting, dizziness, feeling lightheaded, joint pain, skin rash, or cramps in your stomach-area. • Eye problems. Tell your healthcare provider if you have any new or worsening eye problems, including eye pain or changes in vision, such as blurred vision. Your healthcare provider may send you to an ophthalmologist
- for an eye exam if needed. • Inflammation in your blood vessels: Rarely, this can happen in people with asthma who receive DUPIXENT. This may happen in people who also take a steroid medicine by mouth that is being stopped or the dose is being lowered. It is not known whether this is caused by DUPIXENT. Tell your healthcare provider right away if you have: rash, worsening shortness of breath, persistent fever, chest pain, or a feeling of pins and needles or numbness of your arms or legs.
- Joint aches and pain. Joint aches and pain can happen in people who use DUPIXENT. Some people have had trouble walking or moving due to their joint symptoms, and in some cases needed to be hospitalized. Tell your healthcare provider about any new or worsening joint symptoms. Your healthcare provider may stop DUPIXENT if you develop joint symptoms.

The most common side effects of DUPIXENT in patients with CRSwNP include: injection site reactions, eye and eyelid inflammation, including redness,

swelling, and itching, sometimes with blurred vision, high count of a certain white blood cell (eosinophilia), gastritis, joint pain (arthralgia), trouble sleeping (insomnia), and toothache.

The following additional side effects have been reported with DUPIXENT: facial rash or redness.

Tell your healthcare provider if you have any side effect that bothers you or that does not go away.

These are not all of the possible side effects of DUPIXENT. Call your doctor for medical advice about side effects. You may report side effects to FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

How should I store DUPIXENT?

- Store DUPIXENT in the refrigerator at 36°F to 46°F (2°C to 8°C).
- Store DUPIXENT in the original carton to protect from light.
- DUPIXENT can be stored at room temperature up to 77°F (25°C) up to 14 days. Throw away (dispose of) any DUPIXENT that has been left at room temperature for longer than 14 days.
- Do not heat or put DUPIXENT into direct sunlight.
- Do not freeze. Do not shake.
- Keep DUPIXENT and all medicines out of the reach of children.

General information about the safe and effective use of DUPIXENT.

Medicines are sometimes prescribed for purposes other than those listed in a Patient Information leaflet. Do not use DUPIXENT for a condition for which it was not prescribed. Do not give DUPIXENT to other people, even if they have the same symptoms that you have. It may harm them. This is a brief summary of the most important information about DUPIXENT for

this use. If you would like more information, talk with your healthcare provider. You can ask your pharmacist or healthcare provider for more information about DUPIXENT that is written for healthcare professionals. For more information about DUPIXENT, go to www.DUPIXENT.com or call

1-844-DUPIXENT (1-844-387-4936)

What are the ingredients in DUPIXENT? Active ingredient: dupilumab

Issue Date: September 2022

Inactive ingredients: L-arginine hydrochloride, L-histidine, polysorbate 80, sodium acetate, sucrose, and water for injection Manufactured by: Regeneron Pharmaceuticals, Inc., Tarrytown, NY 10591 U.S. License # 1760; Marketed by sanofi-aventis U.S. LLC, (Bridgewater, NJ 08807) and Regeneron Pharmaceuticals, Inc. (Tarrytown, NY 10591) / DUPIXENT is a registered trademark of Sanofi Biotechnology / ©2022 Regeneron

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WHY DOESN'T **EVERYONE WITH SINUSITIS GET NASAL POLYPS?**

Why are polyps more severe in some people than in others? Scientists may have answers. In a study that looked at the genes of people with chronic sinusitis, researchers found that the people with polyps had an overactive gene called CRTH2. Those who had the most hyperactive CRTH2 gene tended to have stubborn polyps that came back after surgical removal. This discovery may lead drugmakers to develop a medicine that can calm this gene down.

1in50Estimated number of people in the U.S. who have nasal polyps.

Number of people with chronic rhinosinusitis in the U.S. who have nasal polyps.

SOURCE: National Library of Medicine

SOURCE: Scientific Reports

THE LATEST ON

SOURCE: National Library of Medicine

REGAIN YOUR VOICE

Nasal polyps can give you a nasal-sounding voice. So can removing the polyps bring your old voice back? A new study says "yes." Doctors measured the opening between the oral air passage and the nasal air passage—the velopharyngeal opening—both before and after surgery. Its size determines how nasal your voice sounds. They also had patients rate their satisfaction with the sound of their own voice both before and after the procedure. The velopharyngeal opening continued to expand up for up to 6 months after surgery and, during this time, people's satisfaction with their voice kept improving, too.

.....

SOURCE: Frontiers in Immunology

BREATHE EASIER

Do you have asthma that's difficult to get under control? Your nasal polyps may be to blame. A recent study looked at a group of 151 people who have both nasal polyps and asthma. They found that those who had the most severe nasal polyps were more likely than others to have difficult-to-control asthma. The study points to the need for a customized approach to the treatment of both asthma and polyps in each patient. If you have uncontrolled asthma, talk to your doctor about your entire treatment plan for both your asthma and your nasal polyps.

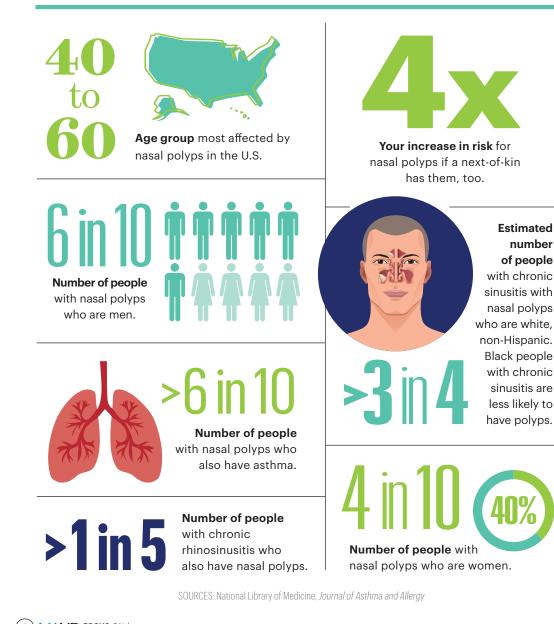
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Rx Only

1 in 4

NASAL POLYPS

By Sonya Collins Reviewed by Neha Pathak, MD, WebMD Lead Medical Editor





HOW MUCH DO YOU KNOW ABOUT NASAL POLYPS? TAKE THIS QUIZ TO FIND OUT

By Kendall K. Morgan Reviewed by Neha Pathak, MD, WebMD Lead Medical Editor

Talk to your doctor about your treatment options. But polyps often will come back despite surgery. need surgery to open their nasal passages back up. 5. FALSE. Many people with nasal polyps will

your nasal polyps can't give you asthma. conditions are related to chronic inflammation, nose, making it hard to breathe. While both have asthma. Nasal polyps can also block your 4. FALSE. Many people with nasal polyps also

not thought to be a main cause of nasal polyps. nasal polyps isn't known, and seasonal allergies are cells called eosinophils. But the exact cause of

SDI PRODUCTIONS/VIA GETTY IMAGES

FREEPIK.COM/GETTY IMAGES

O False

SUMMER 2023 | WEBMD.COM (9

unusually high number of allergy-related immune

under the microscope, they'd probably see an 3. FALSE. If a doctor looked at your nasal polyps

over-the-counter medicines without any issue.

to aspirin and related chemicals. But most people

people with nasal polyps have. People with this

rhinosinusitis will also have nasal polyps.

1. TRUE. About 20% of people with chronic

condition also have asthma and a specific sensitivity

bated respiratory disease (AERD) that about 1 in 10

2. TRUE. There's a condition called aspirin-exacer-

with nasal polyps can take aspirin and other

4. Nasal polyps can give you asthma. **O** True **O** False **O** True

5. Surgery is the cure for nasal polyps.

O False

you may get nasal polyps. O True **O** False 2. Aspirin can make nasal polyps worse. **O** True **O** False 3. Seasonal allergies are a main cause of nasal polyps. O True

1. If you have nasal congestion, cough, and runny nose that won't go away-

also known as chronic rhinosinusitis-

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NASAL POLYPS 101

CAUSES, SYMPTOMS, AND DIAGNOSIS

By Rachel Reiff Ellis Reviewed by Neha Pathak, MD, WebMD Lead Medical Editor

Your stuffy nose just won't seem to go away, and then you learn it's something more: nasal polyps. Here's what you need to know about these nose growths.

Nasal polyps are small, noncancerous sacs that form inside your nose and sinuses. Some people don't feel or notice them at all when they have them. In other people, they cause uncomfortable and long-lasting symptoms.

CAUSES

Doctors don't know exactly why nasal polyps form, but they're linked to having constant bouts of inflammation in your nose and sinuses, also called chronic rhinosinusitis. Inflammation can have different causes such as allergens, upper respiratory infections, or even secondhand smoke.

"Things we know about for sure include environmental allergies, such as grasses, trees, ragweed, and allergies to cats and dogs that are significant," says Meha Fox, MD, assistant professor of otolaryngology–head and neck surgery at Baylor College of Medicine in Houston. You may also get polyps if you have an underlying

disease such as cystic fibrosis or other autoimmune disease.

COMMON SYMPTOMS

Once your nasal polyps have grown to a certain size, you're likely to have a hard time breathing through your nostrils. You may have more mucus, cough, have headaches and sinus pressure, and you may lose some of your senses of taste and smell.

"Polyps tend to develop slowly over some time, and so it may either take a while for symptoms to develop or people may get so used to the slow changes in their upper airway that they never develop major symptoms," says Zara M. Patel, MD, director of endoscopic skull base surgery at

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Stanford University School of Medicine in California.

Nasal polyps don't typically cause any pain or bleeding, so if you have either, tell your doctor.

DIAGNOSING NASAL POLYPS

You might think that a doctor could simply take a glance in your nostrils to diagnose you, but it takes more investigation than that.

"It's rare that you can see polyps from just looking from the front of the nose, like a primary care or urgent care provider would be able to do," Patel says.

An otolaryngologist (ear, nose, and throat doctor, or ENT) can use a small, flexible tube with a camera on it called an endoscope to examine far enough back in your nostrils. This helps them see your nasal cavity and sinus drainage pathways.

If you've never had a sinus surgery before, your doctor may need to use a CT scan to look deeper

in your sinuses.

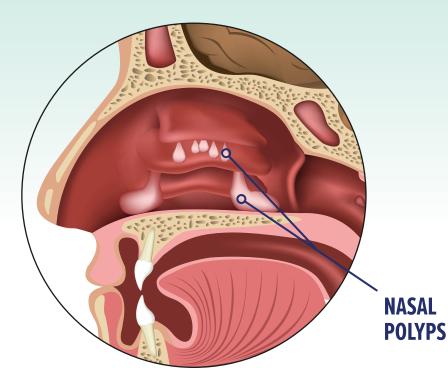
"Sometimes we get a CT scan to determine the extent of disease, such as how many sinuses are involved," Fox says. "This helps guide our treatment plan."

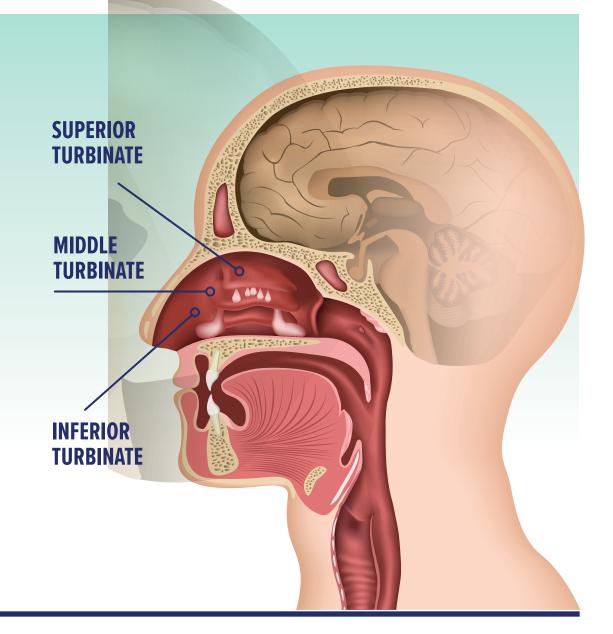
WHO'S AT RISK?

Meha Fox, MD, lists factors that increase your chances of nasal polyps.

- + Multiple allergies
- + Cystic fibrosis
- + Autoimmune conditions (such as granulomatosis with polyangiitis)
- + Cilia (nose hair) dysfunction

EXPLORE THE NASAL CAVITY





SOURCES: Mayo Clinic, World Allergy Organization, Pharmacy Times, Current Medical Research and Opinion, CDC, Stanford Health Care

NASAL POLYPS

These painless growths can develop along the lining of the nasal passages and sinuses in response to chronic inflammation.

RUNNY NOSE

When you have a sinus infection, fluid builds up in your nasal passages, which can lead to a runny nose.

SUPERIOR, MIDDLE, AND INFERIOR TURBINATES

These bony structures, surrounded by blood vessels and nasal lining, clean and humidify the air that enters the nasal passages. In chronic sinusitis, they can get swollen and inflamed, produce too much mucus, and lead to a stuffy nose.

NASAL INFLAMMATION

Swelling and irritation in the nasal passages can prevent proper drainage, cause a buildup of mucus and sometimes pus, and make it difficult to breathe.

MEDICALSTOCKS/VIA GETTY IMAGES

MY 8-YEAR JOURNEY

LIVING WITH NASAL POLYPS

By Edna Lenore Marson Canty Reviewed by Neha Pathak, MD, WebMD Lead Medical Editor

For me, it started with a flood.

My town flooded back in early 2015. My house flooded, and despite our best efforts, we got mold in our home. Before long, I started to get congested and started wheezing. I thought it was just a cold. But this felt different.

My doctor said I had asthma and prescribed a rescue inhaler. He also recommended sinus surgery, but I didn't have enough information at the time to proceed. I decided to wait and just use my inhaler, which I did often.

MY QUEST FOR KNOWLEDGE

I was referred to an ENT (ear, nose, and throat) doctor who officially diagnosed me with nasal polyps after a few months. I was given antibiotics to kill any infections that might have worsened my congestion. During this time, I could still see this small white bubble inside my nose. I would blow my nose, and nothing would come out!

I still wasn't ready for surgery, so my ENT put me on a steroid. It was shrinking the polyps for about 2 months. I was feeling better. I was happy! Then my smell dropped again. I became depressed after having



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so much hope. My doctor suggested I try prednisone again. The same thing—it worked, then stopped. I spoke to an ENT surgeon in the office who gave me two options. He explained that nasal polyps are from inflammation, which is what forms the teardrop. He described surgery as "mowing a lawn" and walked me through the post-surgery instructions. After getting my questions answered, I moved forward with the endoscopic sinus surgery in December of the same year. My recovery was intense, about a month, but my older children helped me a lot.

A SWEET SMELL

Before surgery, I would tell my doctors, "I can't smell!" I was burning food. I had a new baby at the time, and I couldn't even smell if he had a dirty diaper. Those were some tough times. People underestimate how much you need your sense of smell for daily life. I'm sure I was around people with lots of perfume or around smoke and I didn't know it. I'm guessing this made my asthma worse.

A few months after surgery, I got congested again and my doctor found some smaller polyps. It was so stressful. I felt like no one understood me. This was affecting my job. Because I was stuffy, it made me sound weird on the phone. I did a steroid series every 3 months for about 3 years. By 2021, the prednisone stopped working.

I went to a new ENT who did an imaging of my sinus cavity, which was full of polyps. He suggested another surgery that would remove some of my sinus bone. Again, all of this sounded scary. Plus, there's no guarantee they won't come back.

A NEW DAY

After some discussions of pros and cons, my doctor suggested a new drug. It targets the cells to prevent the growth of polyps. Another doctor confirmed this for me and said it was safe to take while breastfeeding. After 2 weeks, I was smelling hints of coffee and slight scents of perfume. After a few weeks, my sense of smell came back strong.

Today, I'm taking this drug via self-injections. I also watch my sugar intake to reduce inflammation. I take a maintenance inhaler and another prescription medication for my asthma and allergies. I'm even able to spend a little more time outside. I went camping in the backyard with my kids recently. I'm still deciding if I want to try surgery. In the meantime, I look forward to enjoying life.



EDNA'S TIPS

+ GET A THIRD OPINION

I don't just get a second opinion, I believe in third and fourth opinions. It helped me compare advice from different experts to make an informed decision.

+ ALWAYS WRITE DOWN YOUR QUESTIONS

When I'm prepared for my appointments, they go much better.

+ FIND RESOURCES

I researched nasal polyps, doctor success rates, medications, and more. This helped me make decisions when I had multiple options.

WHEN THE NOSE DOESN'T KNOW

NASAL POLYPS AND YOUR SENSE OF SMELL

By Sonya Collins Reviewed by Neha Pathak, MD, WebMD Lead Medical Editor

Nasal polyps can make it hard to breathe through your nose. But in some people, that's not their only effect. These noncancerous growths in the nasal passages can affect your sense of smell, too. And, of course, this can affect how foods taste.

Here's a look at how nasal polyps affect sense of smell and why it may not happen to everyone.

POLYPS BLOCK ODORS

You have specialized nerves inside your nose called olfactory nerves that detect odors. They live in narrow passages called the nasal cleft—one on each side of your nose—high up in the nose.

"One way that nasal polyps affect sense of smell is that they block odorants from finding the olfactory nerves," says Eric H. Holbrook, MD, director of the division of rhinology at Massachusetts Eye and Ear in Boston.

POLYPS DAMAGE ODOR-SENSING NERVES

Researchers also suspect, Holbrook adds, that the inflammation caused by nasal polyps can damage

the lining of the olfactory cleft, reduce the number of nerves, and make it less sensitive to smell.

NOT EVERYONE LOSES SMELL

Nasals polyps may only block and damage odor-sensing nerves when the polyps are located in or near the area where those nerves live.

"In some people, all the inflammation is in the sinuses and doesn't reach the rest of the nasal cavity, so they have a normal sense of smell," Holbrook says.

It also depends on the severity of inflammation in your nose. In some cases, the inflammation may not reach such a level that it affects your ability to pick up on odors and fragrances.

SMELL THE ROSES ONCE AGAIN

Fortunately, Holbrook says, when you get treatment for nasal polyps, in most cases as the inflammation and swelling are reduced, the ability to smell the world around you comes back.

"But there is evidence that over a long period of time, if not treated, it could be permanent," he says.

That's why it's important to get treatment. You might get topical steroids that only go into the nasal passages. If you need more help, you may try steroids in pill form. Surgery could also be an option. If your polyps come from allergy-related inflammation, your doctor will use medication to treat your allergies, too.

"If you have persistent polyp disease that doesn't respond to anything else, biologic medications are coming out that have been extremely helpful."

DO FOODS INFLAME NASAL POLYPS?

AN EXPERT WEIGHS IN

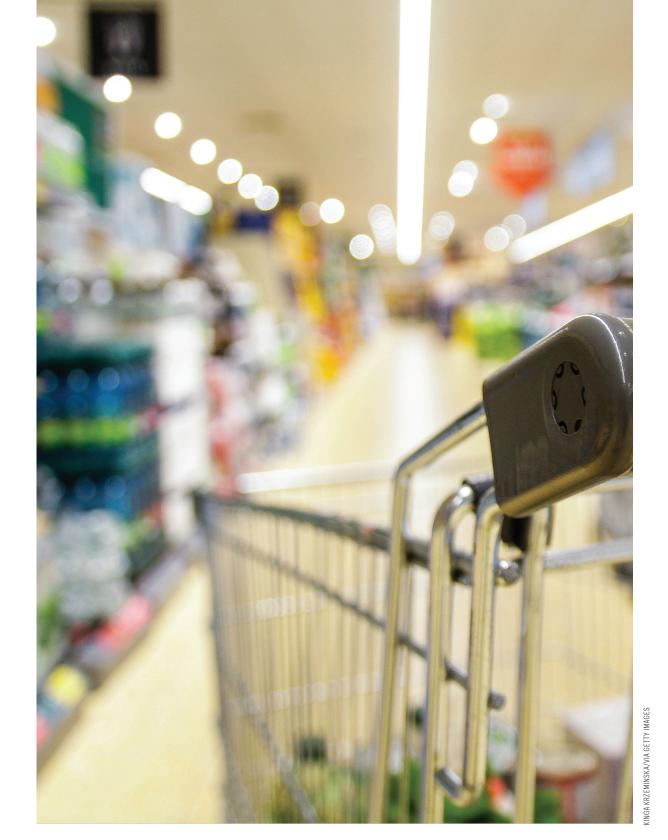
By Kendall K. Morgan Reviewed by Neha Pathak, MD, WebMD Lead Medical Editor

Eating a healthy diet is never a bad idea. But if you worry as many do that certain foods are the cause of your nasal polyps—or may be making your symptoms worse—don't. Food sensitivities or allergies generally aren't the cause of nasal polyps.

"Bottom line—diet doesn't affect things much," says Leigh J. Sowerby, MD, a head and neck surgeon at the University of Western Ontario in London, Ontario, Canada. "Very specific patients with aspirin sensitivity notice some improvement in symptoms following a low-salicylate diet, but that's it. It's minor and it is a hard diet to follow."

ASPIRIN SENSITIVITY AND SALICYLATES

The exception is if you have chronic nasal polyps plus asthma and you also have a severe reaction



or shortness of breath after taking aspirin, a condition known as aspirin-exacerbated respiratory disease (AERD). AERD often doesn't respond well to treatments that work for other people. If you think this might be you but aren't sure, talk to your doctor about it.

Sowerby ran a small study to see if a diet low in chemical salicylates might help people with AERD including nasal polyps. Aspirin is the most common salicylate, and many foods also have salicylates in them. People in the study ate a high- or low-salicylate diet for a week and then switched to the other diet. Biochemical tests didn't show any difference, but people eating less salicylates did report feeling better.

TRY THIS AT HOME?

Most people with nasal polyps find that alcohol makes symptoms worse, Sowerby notes. So you may want to limit or avoid alcohol and see if you get better.

If you think a certain food or food ingredient is causing a reaction and making your nasal polyps worse, it's likely safe to avoid it for a while and see what happens. Talk to your doctor, too. In most cases, though, this isn't likely to be your solution. Limiting salicylates won't help most people with polyps much and it's also a drag.

"All the good things in life tend to have higher levels of salicylates," Sowerby says.

FOODS HIGH IN SALICYLATES

+ Black pepper	+ Dried fruit
+ Basil	+ Raspberries
+ Chili powder	+ Blackberries
+ Peppermint	+ Honey
+ Olive oil	+ Almonds
+ Wine	+ Green olives

SLEEP WELL

WHAT YOU CAN DO FOR A GOOD NIGHT'S REST

By Sonya Collins Reviewed by Neha Pathak, MD, WebMD Lead Medical Editor

Nasal polyps make it hard to breathe. When you can't breathe, you can't sleep. Treating your polyps can get you sleeping again. Some steps you can take on your own might help, too. Here's what you need to know about nasal polyps, sleep, and how you can get the rest you need.

HOW NASAL POLYPS AFFECT SLEEP

Nasal polyps, when they're big enough or in certain places, can block airflow through your nose. "This leads to frequent arousals from sleep, mouth breathing, and dry mouth," says Shannon Sullivan, MD, a sleep specialist at Stanford Sleep Medicine Center in Redwood City, CA.

Mouth breathing is more than just uncomfortable when you're nodding off. It can lead to other problems. For starters, snoring, which can interrupt breathing and wake you up all night.

"If you have sleep apnea, polyps can exacerbate it," says Noah S. Siegel, MD, director of the sleep medicine and surgery division at Massachusetts Eye and Ear in Boston. "If you're not breathing through your nose, you might not get the benefit of your sleep apnea therapies like a CPAP or oral appliance."

When your mouth is open all night, it gets dry. That means waking up with a sore throat. It can even cause dental problems.

BETTER HABITS, BETTER SLEEP

Sleep experts recommend these habits for better sleep:

- + Follow a relaxing nightly bedtime routine. It might include meditation, soft music, or a warm bath.
- + Keep your bedroom cool, dark, and quiet.
- + Keep screens like smartphones and TVs out of the bed and bodroom
- + Avoid large meals, caffeine, and alcohol before bed.

DEDMITYAY/VIA GETTY IMAGES

+ Skip daytime naps.

GET HELP FROM YOUR HEALTH CARE PROVIDER

"If you have nasal polyps and are sleeping poorly, feeling unrefreshed when you wake, or feeling sleepy during the day, talk to your health care provider," Sullivan says.

If polyps are the cause of your tossing and turning, the first step is to get the polyps under control so you can breathe at night.

"By controlling nasal polyps, you'll get improvement in your symptoms both during the day and at night," Siegel says.

If you've tried treatments that haven't worked, it might be time to try something new. You may have other treatment options, including steroid sprays, steroid pills, and surgery.

Sometimes allergies are behind nasal polyps. You'll need to follow your doctor's treatment plan for your allergies, too.

WHAT YOU CAN DO

If you don't get medical care for your polyps, they will continue to keep you up at night. But while

you're between treatments or waiting for a new one to take effect, there are things you can do to move the needle toward better slumber.

Congestion and breathing problems often get worse when you lie down. Some people with polyps breathe easier when they sleep propped up on a pillow or a bed wedge.

Home remedies might help, too. "Sometimes nasal strips or saline rinses help out in certain situations," Siegel says.

If allergies are behind your nasal polyps, limit your exposure to triggers in your bedroom. How you do that depends on the allergy. You might need to keep pets out of the bedroom, vacuum frequently, or use zippered, allergen-resistant covers on your pillows and mattress. Your doctor can offer other tips.

WHY IT MATTERS

Sleep affects every aspect of your health. Ongoing bad sleep can raise risk for chronic diseases including diabetes, heart disease, obesity, and depression.

"Like diet and exercise, sleep is essential for physical health, mental health, and well-being," Sullivan says. "Healthy sleep helps you be your best."

TREATING NASAL POLYPS WITH MEDICATIONS AND OTHER THERAPIES

METHODS FOR MANAGING YOUR CONDITION

By Rachel Reiff Ellis Reviewed by Neha Pathak, MD, WebMD Lead Medical Editor

For some people, nasal polyps don't ever fully go away. But there are many treatment options to help reduce symptoms. Your doctor will choose a treatment based on the size of your polyps, how severe your symptoms are, and what's causing them.

"The goal with treatment is to reduce inflammation," says Amy Best, MD, an ear, nose, and throat specialist at Community Hospital East in Indianapolis, IN.

STEROIDS

Steroid sprays you inhale through your nose are the typical treatment doctors choose for nasal polyps. You can get some over the counter, or your doctor can prescribe them.

"These sprays can reduce the size of polyps, or in some cases, make them go away completely," Best says.

You can also take steroids in pill form, but because they go through your whole body, the side effects can be harder to deal with in the long term. Injectable steroids you get in your nose may be an option if your polyps are severe.

ANTIBIOTICS

"It's pretty common to get sinus infections when you have nasal polyps, especially if they're blocking your nasal passages,"

QUESTIONS FOR YOUR DOCTOR

Understand your treatment course.

+ What side effects should I expect?

+ Do I need to follow any restrictions?

Is there a generic alternative for my medication?

+ Where can I learn more about my treatment?

says David Tom, MD, an ear, nose and throat specialist at Oregon Medical Group in Eugene, OR.

If your sinus infection is bacterial, your doctor can prescribe an oral antibiotic to treat the infection and help inflammation go down, reducing the size of your polyps.

URIA/VIA GETTY

ANTIHISTAMINES AND ALLERGY SHOTS

Taking medications like antihistamines and regular allergy shots to tame your allergy symptoms won't address polyps themselves, but they can help keep inflammation and other issues at bay that lead to polyps forming.

BIOLOGICS

You take biologic medications as an injection every other week. Taking them may reduce your chance of needing surgery or oral steroids.

"Biologics work by targeting specific cells or proteins in your immune system to reduce the swelling and inflammation of nasal polyps," Tom says.

ALTERNATIVE MEDICINE

Always consult your doctor before trying new treatments.

Some studies show that when you apply capsaicin (the chemical that gives cayenne peppers their heat) inside the nose, it may help reduce the size of polyps. It may also cause irritation and burning in your nose.

Putting drops of tea tree oil in the water you use for steam inhalation may work as an antimicrobial and help reduce itching, infection, and inflammation.

In studies, turmeric helped calm airway irritation. You can add it to food or try turmeric tea.

If medications aren't working, your doctor may suggest surgery. This may be a

SINUS-FRIENDLY ROUTINES

These practices can help keep polyp size to a minimum.

- + WATCH FOR ALLERGENS Pinpoint and reduce exposure to triggers.
- + RINSE Saline nasal rinses help flush allergens and irritants.
- + AVOID ASPIRIN It can increase symptoms for some people.

permanent fix, or your polyps may grow back afterward. You'll also need to continue taking medications after your surgery.



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Tasty herb commonly thought to be a supportive hand to your overall health

ROSE HIPS

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ELDERFLOWERS

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