CONDITION

Ozena

Ozena is a chronic nasal condition that causes tissue thinning, dry crusts, reduced smell, and a strong unpleasant odour.

WHAT IT IS
Chronic thinning and crusting inside the nose

BODY SYSTEM
Nose and upper airways

MAIN SYMPTOMS
Thick crusts, foul smell, nasal blockage, reduced smell

WHAT CAUSES IT
Usually unknown; sometimes surgery, injury, infection, or radiation

HOW IT IS DIAGNOSED
Nasal examination or endoscopy; tests identify possible causes

MAIN TREATMENT
Nasal rinsing, moisturising care, antibiotics, sometimes surgery

CAN IT BE CURED?
No - long-term symptom control is possible

IS IT AN EMERGENCY?
Sometimes - severe bleeding or breathing difficulty

LONG-TERM OUTLOOK
Usually chronic, with symptoms often manageable

Overview

Ozena is a rare, long-lasting form of atrophic rhinitis. "Atrophic" means that tissue has become thin or has shrunk. In ozena, the moist lining inside the nose becomes dry and fragile. The nasal turbinates, which normally warm and humidify inhaled air, may also become smaller.

These changes leave the nasal passages unusually wide, but the nose may still feel blocked. This is sometimes called paradoxical nasal obstruction. Dry secretions collect as thick crusts, which can support bacterial growth and produce a strong unpleasant odour.

People with ozena often lose some or all of their sense of smell. As a result, you may not notice an odour that is clear to other people. This can affect confidence, relationships, work, and social activities.

Ozena usually refers to primary atrophic rhinitis, in which no single underlying cause can be found. Similar changes can develop after nasal surgery, injury, radiation treatment, or another condition. This is called secondary atrophic rhinitis.

Ozena is generally not life-threatening, but it usually needs assessment and long-term care from an ear, nose, and throat specialist, often called an ENT specialist.

Symptoms

Symptoms usually develop gradually. They may affect both sides of the nose and can become more noticeable in dry air.

Common symptoms include:

The crusts can stick firmly to the delicate nasal lining. Removing them forcefully may cause pain or bleeding.

The smell is produced mainly by crusted material and bacterial activity. It is not a sign of poor personal hygiene. Because smell loss is common, another person may notice the odour before you do.

These symptoms are not specific to ozena. Chronic sinus problems, a foreign object in the nose, previous surgery, certain infections, and other nasal conditions can cause similar symptoms.

- Thick, dry, yellow, green, brown, or blood-stained crusts
- A strong unpleasant smell from the nose
- A blocked sensation despite wide nasal passages
- Reduced or absent sense of smell
- Nasal dryness, burning, or irritation
- Recurrent nosebleeds
- Discharge from the nose or into the throat
- Headache or facial discomfort

Causes and risk factors

The cause of primary ozena is not fully understood. It is probably influenced by several factors rather than one clear cause. Proposed factors include differences in nasal blood supply,

long-term inflammation, nutrition, inherited susceptibility, and bacterial overgrowth. Research has not established one explanation that applies to everyone.

A bacterium called Klebsiella ozaenae is often found in people with ozena. Other bacteria may also be present. Finding bacteria does not prove that an infection started the condition; bacteria may colonise tissue that is already dry and damaged.

Secondary atrophic rhinitis has a more identifiable trigger. It may follow:

Not everyone with these exposures develops atrophic rhinitis. A clinician will consider your medical history, previous procedures, medicines, work exposures, and other symptoms when looking for a possible cause.

- Extensive surgery inside the nose
- Significant nasal injury
- Radiation treatment to the head or face
- Long-term exposure to irritating chemicals or dust
- Certain chronic inflammatory or infectious conditions
- Repeated use of substances taken through the nose

Diagnosis

There is no single blood test for ozena. Diagnosis is based mainly on the appearance of the inside of the nose and your history.

An ENT specialist may examine your nose with a lighted instrument or a thin nasal endoscope. An endoscope is a narrow tube with a camera. Typical findings include wide nasal passages, shrunken turbinates, thick crusts, and a thin, dry lining.

Crusts may need to be softened or gently removed so that the tissue underneath can be examined. A sample can be sent for a bacterial culture, particularly when there is discharge, worsening inflammation, or concern about infection.

A CT scan may show shrinking of the turbinates, widened nasal spaces, sinus changes, or evidence of previous surgery. It can also help rule out other explanations for the symptoms.

Blood tests or a small tissue sample, called a biopsy, may be needed when the appearance is unusual or an inflammatory, infectious, or other underlying condition is suspected. These tests are not required for every person.

Treatment and management

Treatment aims to keep the nose moist, limit crust formation, reduce odour, control bacterial overgrowth, and prevent bleeding. There is no single treatment that works for everyone, and improvement usually requires ongoing care.

Regular saline rinsing is a central part of treatment. Saline is salt water made at the correct concentration for body tissues. It softens crusts and washes away dried secretions. If you use a rinsing device, use sterile or distilled water, or tap water that has been boiled and cooled. Clean and dry the device after use.

Moisturising gels, sprays, or other nasal preparations may help reduce dryness. A room humidifier can also be useful, especially in a dry climate or during winter. Ask a healthcare professional which nasal products are suitable because some oily substances can be harmful if repeatedly inhaled into the lungs.

Firm crusts may need periodic removal by an ENT specialist. This is called debridement. Professional removal lowers the risk of tearing fragile tissue compared with picking or pulling at crusts yourself.

Antibiotics like amoxicillin or doxycycline may be used when bacterial overgrowth or active infection is contributing to discharge, odour, or inflammation. The choice may be guided by a culture. Antibiotics do not rebuild shrunken tissue, and they are not automatically needed whenever crusting occurs.

Any identified underlying cause also needs attention. For secondary atrophic rhinitis, treating the cause may stop further damage and sometimes improves symptoms.

Surgery may be considered when careful medical management does not provide enough relief. Procedures may narrow the enlarged nasal space, add supporting tissue, or temporarily reduce airflow through the nose so the lining can recover moisture. Surgery can improve crusting and odour, but results are not guaranteed and continued nasal care may still be needed.

Evidence comparing treatments is limited because ozena is uncommon and clinical studies have generally been small.

Complications

Repeated dryness and crusting can damage the nasal lining and cause frequent bleeding. Ongoing inflammation may lead to a hole in the nasal septum, the wall between the nostrils, or changes in the shape of the nose.

Other possible problems include chronic sinus inflammation, repeated local infections, and

further loss of smell. A reduced sense of smell can also make it harder to notice smoke, leaking gas, spoiled food, or other warning odours. Smoke and gas alarms are particularly important at home.

The odour associated with ozena can have a major emotional and social effect. Some people avoid close contact or worry that others will misunderstand the condition. Support for anxiety, low mood, or social isolation can be an important part of care.

Prevention

Primary ozena cannot currently be reliably prevented because its cause is not known.

Some cases of secondary atrophic rhinitis may be preventable. Avoid putting recreational drugs or irritating substances into the nose. Use protective equipment if your work involves airborne chemicals or heavy dust.

If you have nasal surgery, follow the aftercare plan and attend routine follow-up appointments. Report persistent crusting, increasing dryness, or an unexpected change in smell rather than repeatedly removing crusts yourself.

These steps may lower avoidable irritation, but they cannot prevent every case.

Living with it and what to expect

Ozena is usually a chronic condition. Symptoms may continue for months or years and may come and go in severity. Dry weather, indoor heating, smoke, dust, and gaps in nasal care can make crusting more noticeable.

Regular rinsing and moisturising care often reduce crusts, odour, and bleeding. However, established loss of nasal tissue may not reverse. Some people need periodic ENT visits for examination and crust removal even when their symptoms are otherwise stable.

Your care plan may change over time. New discharge or odour may lead to a culture, while repeated bleeding may require closer examination. Surgery may become an option if daily care is not enough.

Loss of smell may be lasting. Use working smoke and carbon monoxide alarms, check food dates, and ask someone you trust to help identify smells when safety is involved.

Most people can continue their usual activities, although daily nasal care can be time-consuming. If odour or smell loss affects relationships, work, or emotional wellbeing, tell your healthcare team. These effects are part of the condition and deserve attention.

When to get medical help

Arrange a routine medical appointment if you have persistent nasal crusting, an unexplained unpleasant smell, repeated minor nosebleeds, or a lasting reduction in smell. An ENT assessment is especially useful if you have had nasal surgery, injury, or radiation treatment.

Seek prompt medical advice if you develop increasing facial pain, swelling, fever, pus-like discharge, or bleeding that keeps returning. These changes may indicate infection or another problem that needs treatment.

Seek emergency care for:

Most ozena symptoms are managed through planned follow-up rather than emergency treatment.

- Heavy bleeding that does not stop with firm pressure
- Difficulty breathing
- Swelling around an eye, new vision problems, or severe eye pain
- Confusion, fainting, or a sudden severe headache with nasal symptoms

Common questions

Is ozena contagious?

Ozena itself is not generally considered contagious. Bacteria may grow in the nasal crusts, but this does not mean that ordinary contact will pass the condition to someone else. Normal hand hygiene and not sharing nasal-rinsing equipment are sensible.

Why can other people smell it when I cannot?

Crusts and bacterial activity can produce a strong odour. At the same time, damage to the nasal lining may reduce your sense of smell, so you may be unable to detect it yourself.

Is ozena the same as sinusitis?

No. Sinusitis is inflammation in the air-filled sinuses around the nose. Ozena mainly involves thinning and drying of the nasal lining and turbinates. The two conditions can occur together, but they are not the same.

Can ozena be cured permanently?

There is no reliable cure for primary ozena. Regular nasal care can often control crusting, odour, and bleeding. Secondary atrophic rhinitis may improve if its underlying cause can be treated, although existing tissue loss may remain.

Can I remove the crusts myself?

Saline rinses can gently soften and clear loose material. Do not pull at firmly attached crusts because the lining can tear and bleed. An ENT specialist can remove difficult crusts more safely.

Will I need surgery?

Not everyone does. Surgery is generally considered when consistent rinsing, moisturising care, professional cleaning, and treatment of infection do not provide enough relief. Its purpose is usually to reduce dryness and crust formation rather than restore a completely normal nose.

Sources

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