CONDITION

Sinusitis

Sinusitis is inflammation of the sinus lining that causes nasal blockage, discharge, and facial pressure.

WHAT IT IS
Inflammation of sinus and nasal linings

BODY SYSTEM
Nose, sinuses, and airways

MAIN SYMPTOMS
Blocked nose, facial pressure, nasal discharge, reduced smell

WHAT CAUSES IT
Usually viral infection; sometimes bacteria, allergy, or inflammation

HOW IT IS DIAGNOSED
Symptoms and examination; endoscopy or CT for chronic cases

MAIN TREATMENT
Self-care, nasal sprays, and antibiotics only when appropriate

CAN IT BE CURED?
Sometimes - acute episodes often clear completely

IS IT AN EMERGENCY?
Sometimes - eye swelling, vision changes, or neurological symptoms

LONG-TERM OUTLOOK
Most acute cases settle; chronic symptoms can recur

Overview

Sinusitis is inflammation of the lining of the sinuses. The sinuses are air-filled spaces in the bones around your nose, cheeks, and forehead. They make mucus, which normally drains through small openings into the nose.

Because the nose and sinuses are usually inflamed together, clinicians may call the condition rhinosinusitis . "Rhino" refers to the nose.

Swelling can block normal mucus drainage. This may cause a blocked or runny nose, facial pressure, and a reduced sense of smell.

Acute sinusitis develops over a short time, often during or after a cold. Most acute cases are caused by viruses and improve without antibiotics. A smaller number are caused by bacteria.

Chronic sinusitis means symptoms have continued for at least 12 weeks. It involves ongoing inflammation rather than simply one infection that has failed to clear. Some people also develop nasal polyps, which are soft, non-cancerous growths inside the nose or sinuses.

Sinusitis can disturb sleep, concentration, exercise, and daily activities. Identifying whether symptoms are acute, recurrent, or chronic helps guide the next steps.

Symptoms

Common symptoms include:

You may also have a cough, headache, ear pressure, bad breath, tiredness, or aching upper teeth. Fever can occur, particularly with an acute infection, but many people with sinusitis do not have one.

Children may mainly have nasal discharge, cough, irritability, or poor sleep. Facial pain is less reliable in young children.

Yellow or green mucus can happen with viral or bacterial infections. Its colour alone does not show that antibiotics like amoxicillin or doxycycline are needed.

Symptoms on only one side, repeated nosebleeds, facial swelling, or persistent one-sided blockage are less typical. They need medical assessment because conditions other than ordinary sinusitis can cause them.

- A blocked or congested nose
- Thick mucus from the nose or down the throat
- Pressure, fullness, or pain around the cheeks, eyes, or forehead
- A reduced or lost sense of smell

Causes and risk factors

Most acute sinusitis begins with a viral respiratory infection, such as a cold. The infection causes swelling that narrows the sinus openings. Symptoms often improve as the cold settles.

Bacterial sinusitis is less common. It becomes more likely when symptoms continue for more than about 10 days without improvement, are severe from the start, or worsen again after beginning to improve. These patterns do not confirm bacteria on their own, so the whole clinical picture matters.

Chronic sinusitis is usually linked to long-lasting inflammation. Possible contributors include

allergies, asthma, nasal polyps, sensitivity to certain medicines, or structural narrowing inside the nose. Smoking and other airway irritants may make symptoms harder to control.

An infected upper tooth can sometimes spread inflammation into a nearby cheek sinus. This may cause one-sided symptoms, an unpleasant smell, or dental pain.

Some immune system disorders and conditions that affect mucus movement increase the risk of repeated or difficult sinus infections. These are uncommon and are usually considered when symptoms are unusually frequent, severe, or resistant to treatment.

A bent nasal partition, called a deviated septum, can affect drainage in some people. However, many people have a deviated septum without sinusitis.

Diagnosis

Acute sinusitis is usually diagnosed from your symptoms and an examination. A clinician may ask how long the symptoms have lasted, whether they improved and then worsened, and whether you have severe pain or fever. They may look inside your nose and check for facial or dental tenderness.

Scans are not usually needed for uncomplicated acute sinusitis. Imaging cannot always distinguish a viral infection from a bacterial one, and temporary sinus changes are common during colds.

Chronic sinusitis requires symptoms for at least 12 weeks plus evidence of inflammation. This evidence may be found during a nasal examination, with nasal endoscopy , or on a CT scan. Nasal endoscopy uses a thin viewing instrument to examine deeper inside the nose.

A CT scan provides detailed pictures of the sinuses. It may be used when chronic sinusitis is suspected, complications are being considered, or surgery is being planned.

Allergy testing may be helpful when symptoms suggest an allergic trigger. A mucus sample is not routinely needed, but a specialist may collect one in difficult or unusual cases. Dental assessment may be appropriate when an upper tooth could be the source.

Treatment and management

Treatment depends on how long symptoms have lasted, how severe they are, and whether the problem is acute or chronic.

For uncomplicated acute sinusitis, symptom relief is often the main approach while the inflammation settles. Options may include rest, fluids, and an over-the-counter pain reliever

that is safe for you. A pharmacist can help you choose products and check for interactions or health conditions that affect their use.

Saline sprays or rinses can loosen mucus and moisturise the nose. If you use a sinus-rinsing device, use distilled or sterile water, or tap water that has been boiled and cooled. Clean the device after use according to its instructions.

A corticosteroid nasal spray reduces inflammation. It may be particularly useful when allergy is involved or symptoms last beyond the first few days. These sprays work best when used correctly and regularly. They are different from anabolic steroids used to build muscle.

Decongestant sprays may briefly reduce blockage, but using them for too long can cause rebound congestion. Oral decongestants are not suitable for everyone. Check the label or ask a pharmacist, especially if you have another health condition, take medicines, or are pregnant.

Antibiotics do not treat viruses and are not routinely useful for early, uncomplicated sinusitis. A clinician may consider them when bacterial sinusitis is more likely, symptoms are severe, complications are suspected, or your health makes infection riskier. If antibiotics are prescribed, take them as directed.

Chronic sinusitis is often managed with regular saline rinsing and a corticosteroid nasal spray. Treatment may also address allergies, asthma, dental infection, or another contributing condition.

An ear, nose, and throat specialist may discuss additional treatment if symptoms continue. Options can include a short course of other medicines in selected cases, biologic medicines for some people with severe nasal polyps, or surgery to improve drainage and remove inflamed tissue. Surgery can reduce symptoms, but it does not always remove the underlying tendency to inflammation.

Medicines commonly used for this include moxifloxacin . Which one suits you, if any, is a decision for you and your doctor.

Complications

Most sinusitis does not cause serious complications.

Occasionally, infection can spread beyond a sinus. The tissues around an eye may become infected, causing eyelid swelling, redness, eye pain, or changes in vision. Rarely, infection can spread to bone or tissues around the brain.

Chronic sinusitis may lead to ongoing loss of smell, poor sleep, tiredness, and difficulty managing asthma. Nasal polyps can add to blockage and smell loss.

Repeated antibiotic use can cause side effects and contributes to antibiotic resistance. This is one reason antibiotics are reserved for situations where they are likely to help.

Prevention

Sinusitis cannot always be prevented. Colds are common, and some people have allergies, polyps, or structural features that make sinus inflammation more likely.

You may reduce some triggers by washing your hands regularly, avoiding tobacco smoke, and managing known allergies. Recommended vaccinations can lower the chance of some respiratory infections, although there is no vaccine specifically for sinusitis.

If you use saline irrigation, safe water and clean equipment help prevent contamination. Good dental care may reduce the risk of sinusitis caused by an upper-tooth infection.

For chronic sinusitis, continuing recommended nasal treatment may reduce flare-ups. It cannot guarantee that symptoms will not return.

Living with it and what to expect

Acute viral sinusitis usually improves as the respiratory infection clears. Nasal blockage or cough may be among the last symptoms to settle. Recovery is not always steady; symptoms can feel better on one day and worse on the next.

If symptoms improve and then become clearly worse, or continue without improvement, a routine medical review may be needed. This does not automatically mean there is a bacterial infection.

Chronic sinusitis often follows a longer course. Symptoms may improve with regular treatment and then flare during colds, allergy seasons, or exposure to irritants. Some people have mild ongoing congestion, while others are more affected by smell loss, facial pressure, or nasal polyps.

Treatment often controls chronic inflammation rather than permanently removing it. Even after successful surgery, saline rinses or nasal sprays may still be needed. Follow-up is useful when symptoms change, smell loss continues, or treatment is difficult to use.

Most people can continue their usual work, school, exercise, and social activities. During a flare, adjusting sleep, hydration, and exposure to smoke or known allergens may make symptoms easier to manage.

When to get medical help

Arrange a routine medical review if:

Seek urgent medical care for swelling or redness around an eye, pain when moving the eye, double vision, reduced vision, or an eye that appears pushed forward.

Seek emergency care for confusion, unusual drowsiness, a seizure, weakness, a stiff neck, or a severe and rapidly worsening headache. These symptoms are uncommon but can suggest that infection has spread beyond the sinuses.

- Symptoms last more than about 10 days without improving
- Symptoms improve and then become noticeably worse
- Pain or fever is severe or persistent
- Sinus symptoms continue for 12 weeks or keep returning
- Symptoms are mainly on one side
- You have repeated nosebleeds, dental pain, or persistent smell loss
- Symptoms are affecting sleep, asthma, or everyday activities
- You have a weakened immune system or another condition that raises infection risk

Common questions

Is sinusitis contagious?

Sinus inflammation itself is not contagious. However, the cold or other respiratory virus that triggered acute sinusitis can spread to other people. Chronic sinusitis and nasal polyps are not contagious.

How can I tell if sinusitis is viral or bacterial?

Symptoms alone cannot always make the distinction. Viral illness is more likely when symptoms start improving within about 10 days. Bacterial sinusitis becomes more likely when symptoms do not improve after that time, are severe early on, or worsen after initial improvement. Green mucus by itself does not prove a bacterial infection.

Do I need antibiotics for a sinus infection?

Most acute sinus infections are viral and improve without antibiotics. Antibiotics may be considered when the symptom pattern suggests bacteria or when complications or health risks are present. They do not relieve allergy-related or chronic inflammation.

What is the difference between sinusitis and a cold?

A cold often causes sneezing, sore throat, and a runny or blocked nose. Sinusitis places more emphasis on ongoing nasal blockage or discharge together with facial pressure or reduced smell. The two often overlap because a cold can trigger acute sinusitis.

Can sinusitis cause tooth pain?

Yes. The roots of the upper back teeth sit close to the cheek sinuses, so sinus pressure can feel like toothache. A damaged or infected tooth can also cause one-sided sinusitis. Pain focused on one tooth, pain when biting, or gum swelling needs dental assessment.

Can chronic sinusitis be cured permanently?

Sometimes symptoms resolve, but chronic sinusitis often has an ongoing tendency to inflammation. Nasal treatment, control of triggers, and sometimes surgery can provide substantial relief. Polyps and other symptoms may return, so some people need long-term management.

Sources

- Centers for Disease Control and Prevention: Sinus Infection Basics
- National Institute for Health and Care Excellence: Sinusitis, antimicrobial prescribing, NICE guideline NG79
- American Academy of Otolaryngology-Head and Neck Surgery Foundation: Clinical Practice Guideline (Update)-Adult Sinusitis
- European Position Paper on Rhinosinusitis and Nasal Polyps 2020, Rhinology Supplement 29
- NHS: Sinusitis
- US Food and Drug Administration: Is Rinsing Your Sinuses With Neti Pots Safe?