Acute sinusitis

Sinus infection

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Sinusitis - also known as a sinus infection - is the swelling of the sinuses, often caused by viral or bacterial infections. Most cases are mild and get better within a few weeks, but chronic sinusitis may require medical treatment.

This leaflet explains the symptoms, causes, treatment, and prevention of acute sinusitis.

Key points

- Sinusitis is inflammation of the sinuses, causing symptoms such as facial pain, pressure, blocked nose, headache, and thick snot.
- It is commonly caused by viral infections, such as the common cold or flu, but can also result from bacteria, allergies, or blockages.
- Most sinus infections improve with rest, hydration, pain relief, nasal sprays, and steam inhalation. Antibiotics may be needed for sinusitis caused by bacterial infections.
- You should see a doctor if symptoms are severe, last longer than 12 weeks, or include high fever or vision changes

What is sinusitis?

Sinusitis means inflammation of a sinus. Most episodes of sinusitis are caused by an infection. The cheekbone (maxillary) sinuses are most commonly affected. Sinusitis can be acute or chronic.

Acute sinusitis

This means that the infection develops quickly (over a few days) and lasts a short time. Many cases of acute sinusitis last a week or so but it is not unusual for it to last 2-3 weeks. Sometimes it lasts longer. Sinusitis is said to be acute if it lasts from 4-30 days and subacute if it lasts 4-12 weeks.

Mild episodes of acute sinusitis are common and many people will have a degree of sinusitis with a cold. However, acute severe sinusitis is uncommon. Most people only ever have one or two bouts of acute sinusitis in their lives. However, some people have repeated (recurring) bouts of acute sinusitis.

Chronic sinusitis

This means that an episode of sinusitis becomes persistent and lasts longer than 12 weeks. Chronic sinusitis is common affecting 1 in 10 adults in the UK. See the separate leaflet called Chronic sinusitis for more details.

The rest of this leaflet is about acute sinusitis.

Acute sinusitis symptoms

Common symptoms of sinusitis include:

- **Pain and tenderness** over the infected sinus. The pain is often throbbing and worse when you bend your head forwards. Chewing may be painful.
- **Feeling of blocked ears.** This is usually due to eustachian tube dysfunction.
- **Nasal symptoms**. You may have either:
  - **A blocked nose**. This may occur in one or both nostrils, sometimes with loss of smell.
  - **A runny nose**. Yellow or green discharge may mean infection

- A high temperature (fever).

Other symptoms that may occur include:

- Headache.
- Bad breath.
- Toothache.
- Cough.
- A feeling of pressure or fullness in the ears.
- Tiredness.

In children, symptoms may also include:

- Irritability.
- Ear discomfort.
- Snoring.
- Mouth breathing.
- Feeding difficulty.
- Nasal speech.

When to see a doctor

See a doctor if symptoms become severe or do not ease within 10 days (however, as mentioned, it can take 2-3 weeks for symptoms to go completely). The sort of symptoms you should tell a doctor about include:

- Severe pain and/or swelling at the front of your head.
- Swelling around the eye.
- Swelling of the face.
- Bloodstained discharge coming from the nose.

You should also see a doctor if you have recurring episodes of sinusitis, as this may indicate an underlying problem.

What causes acute sinusitis?

Viral infections

In most people, acute sinusitis is caused by viral infections such as the cold or flu-like illness. Colds and flu are caused by germs which may spread to the sinuses. The infection usually clears after 2-3 weeks without any specific treatment.

In a small number of cases, different germs, bacteria, add on to an infection that started with a virus. This can cause a bacterial sinus infection which can make the infection worse and last longer.

Spread from a dental infection

In some cases, infection spreads to a cheekbone (maxillary) sinus from an infected tooth.

Other causes

In some people, one or more factors are present that may cause the sinuses to be more prone to infection. These include:

- Nasal allergy (allergic rhinitis). The allergy may cause swelling of the tissues on the inside lining of the nose and block the sinus drainage channels. This makes the sinuses more susceptible to infection. See the separate leaflets that discuss allergic rhinitis, called Hay fever and seasonal allergies and Persistent rhinitis (Sneezing), for more details.
- Other causes of a blockage to the sinus drainage channels, such as:
  - Growths (nasal polyps).
  - Objects pushed into the nose (especially in children, such as peas or plastic beads).
  - Facial injury or surgery.

  - Certain congenital abnormalities in children ('congenital' means they are present from birth).

- Asthma.
- Cystic fibrosis.
- A weakened immune system - for example, people with HIV, people on chemotherapy, etc.
- Inflammatory disorders such as sarcoidosis.
- Pregnancy, which makes you more prone to nasal inflammation (rhinitis).
- Previous injuries to the nose or cheeks.
- Medical procedures involving the nose.
- Smoking.

How is acute sinusitis diagnosed?

Your doctor can usually diagnose acute sinusitis from listening to your symptoms. They may also check to see if you have a temperature or if you have tenderness over your sinuses.

They may examine your nose, as often the lining of the nose is swollen in acute sinusitis. Investigations are not usually needed to diagnose acute sinusitis. Occasionally, blood tests, X-rays or scans are advised if the diagnosis is not clear.

Acute sinusitis treatment

Acute sinusitis often clears up without treatment. However, there are several things you can do to treat the symptoms in the meantime.

Home remedies

Some home treatments may help to relieve symptoms whilst you are waiting for your immune system to clear the infection. These include the following:

- **Painkillers** such as paracetamol or ibuprofen will usually ease any pain. They will also help to bring down any high temperature (fever) that you may have. Sometimes stronger painkillers such as codeine are needed for a short time.
- **Decongestant nasal sprays or drops** are sometimes used. You can buy these from pharmacies. They may briefly relieve a blocked nose. However, they are not thought to shorten the duration of acute sinusitis. You should not use a decongestant spray or drops for more than 5-7 days at a time. If they are used for longer than this, they may cause a worse rebound congestion in the nose.
- **Keeping hydrated** can be helpful, so have plenty of drinks.
- **Warm face packs** held over the sinuses may help to ease pain.

Saline nasal washing may help to relieve congestion and blockage in the nose. This can be done with saline drops or saline spray for the nose bought from a pharmacy. Alternatively, you can use a homemade saltwater solution:

- Mix one teaspoon of salt and one teaspoon of bicarbonate of soda with one pint of boiled water. Allow the mixture to cool.
- Wash your hands.
- Pour some of the solution into the palm of your hand and sniff it up into each nostril over a sink. Repeat as many times as needed until your nose feels more comfortable.

Steam inhalation is a traditional remedy but is now not usually advised. This is because there is little evidence that it helps. Also, there have been some reports of people burning themselves trying to breathe in steam from a kettle. However, some people say that their nose feels clearer for a short while after a hot shower.

Are antibiotics needed?

Not usually. Department of Health guidelines recommend that antibiotics should not be used for at least the first 10 days. Most cases of acute sinusitis are due to infection with a germ called a virus. Antibiotics do not kill viruses and they can cause side-effects such as sickness and diarrhoea.

They may be considered if you become very unwell or if your symptoms persist for more than 10 days and don't respond to other measures. This is more likely to happen in people who have illnesses which make them prone to bacterial infection, such as

cystic fibrosis, heart problems, or a weakened immune system.

Which antibiotics will I be prescribed?

Phenoxymethylpenicillin is usually recommended unless you are very unwell, in which case co-amoxiclav may be prescribed. If you are allergic to penicillin, there are other options such as doxycycline.

What is the fastest way to get rid of a sinus infection?

The body's defence system usually takes at least 10 days to fight the infection. There's nothing you can do to speed up this process, but self-help treatment of the symptoms will help you feel better in the meantime.

If your symptoms persist for more than 10 days your doctor may consider prescribing a high-dose steroid nose spray such as mometasone.

Complications of acute sinusitis

Chronic sinusitis can sometimes develop from an acute sinusitis. This is the most common complication. Chronic sinusitis causes similar symptoms to acute sinusitis but lasts longer.

Other complications are rare. However, they can be serious. For example, infection may spread from a sinus to around an eye, into bones, into the blood, or into the brain. These severe complications are estimated to occur in about 1 in 10,000 cases of acute sinusitis.

They are more common with infection of the frontal sinus. Children are more prone than adults are to complications. Swelling or redness of an eyelid or cheek in a child with sinusitis should be reported to a doctor urgently.

How to prevent acute sinusitis

To avoid developing sinus infection, you can:

- Treat nasal allergies.
- Avoid smoking.

- Remain up-to-date with vaccinations you are eligible for, for example influenza (flu vaccination).

Frequently asked questions

How serious is sinusitis?

Most cases of sinusitis are not serious and get better on their own, but they can become serious if the infection spreads. See a doctor immediately if you have a high temperature, trouble with your vision, or severe facial pain.

Is sinusitis contagious?

Acute sinusitis can be contagious if it is caused by a virus, such as a cold, but not if the cause is bacterial. Sneezing can spread the virus to others.

Can sinusitis cause dizziness?

Acute sinusitis can cause dizziness due to sinus congestion affecting the inner ear. See a doctor if it's severe, persistent, or comes with other concerning symptoms.

How long does it take for a sinus infection to go away?

Most sinus infections improve within 1 to 2 weeks with rest, fluids, and over-the-counter remedies. If symptoms last longer or get worse, it's important to see a doctor as it could be a sign of complications.

Further reading and references

- Sinusitis (acute): antimicrobial prescribing (https://www.nice.org.uk/guidance/ng79); NICE Guidelines (October 2017)
- Husain S, Amilia HH, Rosli MN, et al (http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Abstract&list_uids=29796207); Management of rhinosinusitis in adults in primary care. Malays Fam Physician. 2018 Apr 30;13(1):28-33. eCollection 2018.
- Sinusitis (https://cks.nice.org.uk/sinusitis); NICE CKS, May 2024 (UK access only)

- Chitsuthipakorn W, Kanjanawasee D, Hoang MP, et al (http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Abstract&list_uids=35720767); Optimal Device and Regimen of Nasal Saline Treatment for Sinonasal Diseases: Systematic Review. OTO Open. 2022 Jun 13;6(2):2473974X221105277. doi: 10.1177/2473974X221105277. eCollection 2022 Apr-Jun.
- Barry A, Fahey T (http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Abstract&list_uids=32538592); Clinical Diagnosis of Acute Bacterial Rhinosinusitis. Am Fam Physician. 2020 Jun 15;101(12):758-759.
- Jaume F, Valls-Mateus M, Mullol J (http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Abstract&list_uids=32495003); Common Cold and Acute Rhinosinusitis: Up-to-Date Management in 2020. Curr Allergy Asthma Rep. 2020 Jun 3;20(7):28. doi: 10.1007/s11882-020-00917-5.
- Lemiengre MB, van Driel ML, Merenstein D, et al (http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Abstract&list_uids=30198548); Antibiotics for acute rhinosinusitis in adults. Cochrane Database Syst Rev. 2018 Sep 10;9(9):CD006089. doi: 10.1002/14651858.CD006089.pub5.

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Article history

The information on this page is written and peer reviewed by qualified clinicians.

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