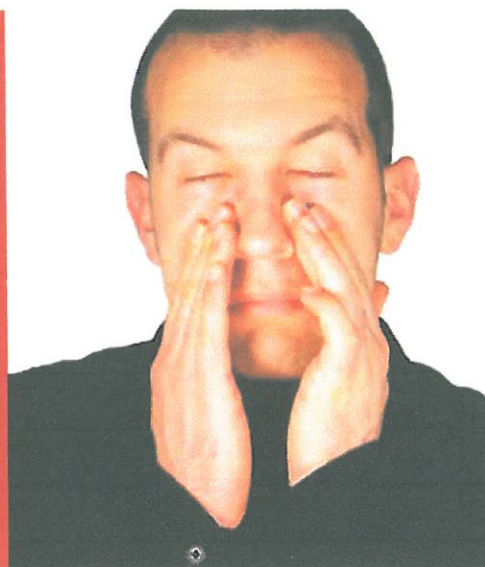


WHAT IS ADULT SINUSITIS

This plain language summary serves as an overview in explaining sinusitis (pronounced sign-uh-sight-is). This summary applies to adults 18 years of age or older with sinusitis and addresses how to manage and treat sinusitis symptoms. Sinusitis is often called a sinus infection, and it affects millions of adults in the U.S. each year. A healthcare provider may refer to a sinus infection as rhinosinusitis (pronounced rhi-no-sign-uh-sight-is). This includes the nose (rhino) as well as the sinuses in the name.



WHAT IS SINUSITIS?

Sinusitis refers to infection, inflammation, or swelling of the sinuses and nasal cavity. The sinuses are a group of hollow spaces that surround the nose and eyes. Sinus infections include cloudy or colored discharge from the nose with nasal blockage or facial pain/pressure. Other symptoms include fever, cough, fatigue, lack of or reduced sense of smell, dental pain, and ear fullness. The symptoms can be serious enough to disturb your quality of life or general well-being.

Sinus infections can be caused by viruses, bacteria, or fungi. A viral sinus infection has similar symptoms as bacterial infections, but improves within 10 days and does not get worse. A bacterial sinus infection is defined by how long the symptoms last. The three types of bacterial sinus infections are acute (short course), recurrent (repeated), or chronic (long lasting). An acute bacterial sinus infection is one that either fails to get better within 10 days or has suddenly gotten worse after an initial period of getting better. Acute bacterial sinus infection lasts less than four weeks. Recurrent bacterial sinus infections are when an acute sinus infection occurs four or more times in a one-year period. A chronic sinus infection is when two or more symptoms and swelling last for 12 weeks or longer. A fungal sinus infection is one that is linked with chronic symptoms. Fungal sinus infections usually occur with people who have weak immune systems. Fungal sinus infections can also occur with people who have used long-term antibiotics. In addition to viral, bacterial, and fungal sinus infections, there are other causes of sinus problems. A healthcare provider can make the proper diagnosis.

WHAT CAUSES ADULT SINUSITIS?

A sinus infection is typically caused by a viral upper respiratory infection, like a cold. A viral infection does not get better from taking antibiotics. Acute bacterial sinus infections are caused by a bacterial infection. Some people with bacterial infections can benefit from the use of antibiotics, although antibiotics are not necessary for everyone.

WHAT CAN YOU DO?

You should see a healthcare provider soon after symptoms occur. Early diagnosis may help avoid

misdiagnosis or delayed treatment and worse results. There are several types of sinus infections, so it is important to get the correct diagnosis for proper treatment. Treatment options should be discussed with the healthcare provider after diagnosis. Antibiotics do not work for viral sinus infections. Antibiotics are not recommended for all types of bacterial infections.

HOW IS ADULT SINUSITIS DIAGNOSED?

A healthcare provider can diagnose a sinus infection by reviewing the medical history and doing a physical exam. The exam should review and document the conditions in your medical record. A healthcare provider will take note of how long symptoms have been present. The healthcare provider should identify acute bacterial sinus infection from viral sinus infection or noninfectious conditions. Your healthcare provider should diagnose an acute bacterial sinus infection when:

- (a) symptoms (facial pain-pressure-fullness, nasal blockage) or signs (cloudy or colored nose drainage) or both continue without getting better for at least 10 days after the onset of upper respiratory symptoms like a cold, or
- (b) symptoms or signs of a sinus infection worsen within 10 days after getting better (double worsening).

Other conditions can seem like a sinus infection. For instance, a headache alone may not mean a sinus infection. With a sinus infection there is usually cloudy or colored nose drainage.

An acute sinus infection is diagnosed when there are up to four weeks of colored or cloudy runny nose drainage with nasal blockage, facial pain-pressure-fullness, or both. A healthcare provider should decide between chronic and recurrent acute sinus infections from a single incident of acute bacterial sinus infections and other causes of sinonasal (sinus and nose) symptoms.

The healthcare provider cannot diagnose chronic sinus infection based on symptoms alone, but will also need to see nasal swelling or inflammation on exam. The healthcare provider may use tools such as an endoscope or rhinoscope. These tools can offer a better view of your sinuses. The healthcare provider may also order a CT (CAT) scan to view sinonasal swelling. The CT scan may confirm a diagnosis of chronic sinus infections. For chronic sinus infections,

the healthcare provider should confirm whether nasal polyps are present. Nasal polyps are harmless growths. Having nasal polyps will modify care of your symptoms.

Instead of prescribing antibiotics right away for your acute bacterial sinus infection, your healthcare provider may suggest a treatment option known as watchful waiting. This option usually includes a seven-day waiting period without antibiotics to see if you get better on your own.

You may be tested for allergies and immune function. This testing will help tell chronic or recurrent sinus infections from allergies.

WHAT TREATMENTS ARE AVAILABLE?

It is important to properly diagnose viral and bacterial sinus infections. If you have heart, kidney, or liver disease, your healthcare provider may consider different treatment.

For a viral sinus infection: Talking with your healthcare provider can help you make decisions about the treatment of symptoms. To relieve symptoms, pain relievers, nasal steroid sprays, and/or nasal saline rinse may be recommended. Nasal saline rinse can be purchased or made at home. Nasal saline rinse involves using a bulb, squeeze bottle, or neti pot. The mixture includes water, baking soda, and a non-iodized salt. Antibiotics are not used for a viral sinus infection.

For an acute bacterial sinus infection: The healthcare provider should offer either watchful waiting without antibiotics or an antibiotic. If a decision is made to treat acute bacterial sinus infection with an antibiotic, amoxicillin will likely be prescribed. A combination of amoxicillin with clavulanate for five to 10 days may also be prescribed as a different treatment. If you feel worse or do not improve after seven days, you should see your healthcare provider. The healthcare provider will review the diagnosis and exclude other causes. The healthcare provider may also decide to start or change antibiotics. To relieve your symptoms, your healthcare provider may recommend over-the-counter treatments. These treatments may include pain relievers, nasal steroid sprays, decongestants, and nasal saline rinse. Nasal saline rinse can be purchased or home-made. Nasal saline rinse involves using a bulb or squeeze bottle or neti pot. The mixture includes water, baking soda, and non-iodized salt.

CONTINUED ON REVERSE



WHAT IS ADULT SINUSITIS

CONTINUED FROM REVERSE

For a chronic sinus infection: Your healthcare provider may recommend saline nasal rinse or topical intranasal corticosteroids. Your healthcare provider may also prescribe both for symptom relief. Your healthcare provider should not prescribe antifungal therapy for chronic sinus infections. Your treatment will be modified if you have asthma, cystic fibrosis, a weakened immune system, or ciliary dyskinesia.

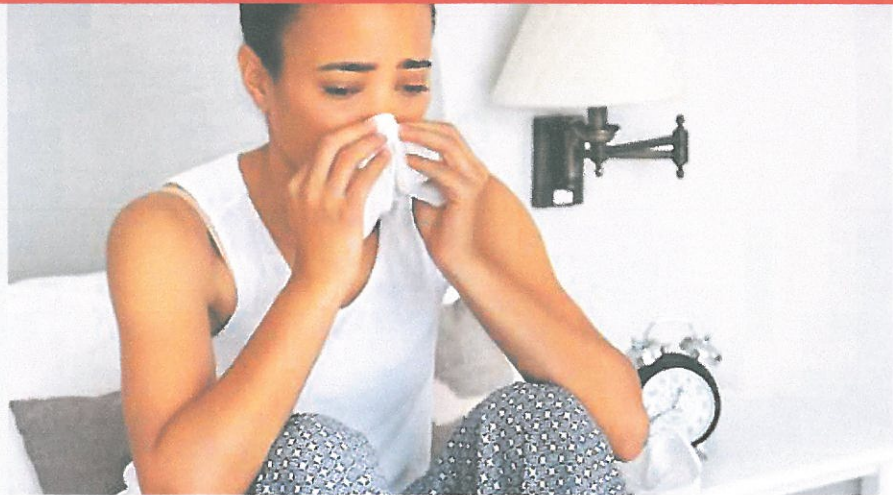
WHERE CAN I FIND HELP?

Patients and healthcare providers should discuss the benefits and potential risks or harms of treatments. Engaging in shared decision making helps achieve better health outcomes. To learn more about sinus infections, there are a number of resources available. Go to www.entnet.org/AdultSinusitisCPG to see printable patient resources and tables. The tables will explain when to use home remedies, such as salt water rinses in the nose. The tables will also explain when it is OK to take an antibiotic and the side effects of antibiotics.

The information written in this summary is based on the 2015 Clinical Practice Guideline: Adult Sinusitis. The evidence-based guideline includes research to support more effective diagnosis and treatment of adult sinus infections.

SOURCE

Rosenfeld RM, Piccirillo JF, Chandrasekhar SS, et al. Clinical Practice Guideline: Adult Sinusitis. *Otolaryngol Head Neck Surg.* April 2015;152(S2):s1-s39.



PATIENT INFORMATION ON DIAGNOSIS OF ACUTE SINUSITIS	
QUESTION	ANSWER
What are the sinuses?	Sinuses are hollow spaces in the bones around the nose that connect to the nose through small, narrow channels. The sinuses stay healthy when the channels are open, which allows air from the nose to enter the sinuses and mucus made in the sinuses to drain into the nose.
What is sinusitis?	Sinusitis, also called rhinosinusitis, affects about one in eight adults annually and generally occurs when viruses or bacteria infect the sinuses (often during a cold) and begin to multiply. Part of the body's reaction to the infection causes the sinus lining to swell, blocking the channels that drain the sinuses. This causes mucus and pus to fill up the nose and sinus cavities.
How can I tell if I have acute sinusitis?	You have acute sinusitis when there have been up to four weeks of cloudy or colored (not clear) drainage from the nose, plus one or both of the following: (a) a stuffy, congested, or blocked nose or (b) pain, pressure, or fullness in the face, head, or around the eyes.
How can I tell if my sinusitis is caused by viruses or bacteria?	Acute viral sinusitis is likely if you have been sick less than 10 days and are not getting worse. Acute bacterial sinusitis is likely when you do not improve at all within 10 days of getting sick or when you get worse within 10 days after beginning to get better.
Why is it important to tell if my sinusitis is caused by bacteria?	Because sinusitis is treated differently based on cause, acute viral sinusitis does not benefit from antibiotics, but some patients with acute bacterial sinusitis may get better faster with an antibiotic.

