Acute Sinusitis

Respiratory tract infections, including the common cold and acute sinusitis, affect millions of individuals every year. Colds are caused by viruses, are easily spread from person to person, and are usually short-lived. Sinusitis (infection of the paranasal sinuses) usually occurs as a result of a cold but also can result from swelling of the nasal passages, obstruction from a medical device or a nasal deformity, or as part of a general infectious process in the body. Acute sinusitis may be caused by viruses, bacteria, or, rarely, a fungus infection. Antibiotics may be used to treat bacterial sinusitis. It is important to understand that antibiotics do not help a cold or viral sinusitis. Using antibiotics improperly (such as for a viral infection) can cause resistant bacteria (that cannot be killed by the usual antibiotics) to form, leading to antibiotic-resistant infections. The May 6, 2009, issue of JAMA includes an article about acute rhinosinusitis (infection of the nose and sinuses). This Patient Page is based on one published in the December 5, 2007, issue of JAMA.

**SIGN AND SYMPTOMS**

- Nasal obstruction
- Pain in the face over sinus areas (near the nose, above the teeth, the forehead)
- Thick and purulent (filled with pus) nasal discharge from both nostrils that may be worse on one side
- Cough and sore throat (from nasal drainage irritating the throat)
- Fatigue and feeling generally unwell
- Fever

**DIAGNOSIS**

Usually the medical history and physical examination are all that is necessary to diagnose sinusitis. Sometimes x-ray studies, including computed tomography (CT) scan, may be used to confirm the diagnosis and look for causes of sinusitis. Occasionally a sample of the sinus contents (also called sinus aspiration) may be taken for laboratory examination to determine the cause.

**TREATMENT**

- Drink plenty of fluids.
- Get lots of rest and appropriate sleep.
- Inhaling steam may help to ease congestion of the sinuses.
- Temporary use of an over-the-counter nasal spray may help relieve congestion, but these should not be used for more than 5 days at a time.
- See your doctor if your symptoms last more than a few days.
- Antibiotics may be prescribed if bacterial sinusitis is suspected. It is important to take the full course of antibiotics as prescribed by your doctor. Do not skip doses or stop taking the medication when you begin to feel better.
- Seek medical attention immediately if you develop a high fever, stiff neck, severe headache, tender swelling near the eyes, or changes in your mental status such as confusion or delirium.

FOR MORE INFORMATION

- Centers for Disease Control and Prevention [www.cdc.gov](http://www.cdc.gov)
- National Institute of Allergy and Infectious Diseases [www.niaid.nih.gov](http://www.niaid.nih.gov)
- American Academy of Pediatrics [www.aap.org](http://www.aap.org)
- American Academy of Otolaryngology–Head and Neck Surgery [www.entnet.org](http://www.entnet.org)

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To find this and previous JAMA Patient Pages, go to the Patient Page link on JAMA’s Web site at [www.jama.com](http://www.jama.com). Many are available in English and Spanish. A Patient Page on coughs, colds, and antibiotics was published in the May 28, 2003, issue.

Sources: Centers for Disease Control and Prevention, National Institute of Allergy and Infectious Diseases, American Academy of Pediatrics

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