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## Antibiotics Mostly Useless for Sinusitis

Study only shows benefit with bacterial infections, which are minority of cases

By Rick Ansorge  
*HealthDay Reporter*

MONDAY, Dec. 18 (HealthDay News) -- If you develop a mild sinus infection this winter -- or even a moderately severe one -- antibiotics won't necessarily speed your recovery, new research shows.

"In the vast majority of cases, rhinosinusitis is a self-limiting disease," said Dr. An De Sutter, of Ghent University Hospital in Belgium. "It can last 10 days or longer, but antibiotics do not influence the course of the disease."

So, if you don't have signs of complications or severe infection, such as a high fever or extreme pain, your best bet is to forgo antibiotics, rely on symptomatic treatments and wait for a natural recovery, De Sutter said.

De Sutter estimates that 50 percent to 70 percent of sinusitis patients are prescribed antibiotics. Although the drugs can effectively treat patients who develop bacterial sinusitis, they are ineffective against viral sinusitis, which represents the majority of cases.

In the study, De Sutter and her colleagues looked at 300 patients with mild to moderately severe sinusitis, 218 of whom received sinus X-rays. They randomly assigned patients to receive either amoxicillin or a placebo, asked them to keep a symptom diary and observed them for 15 days.

The researchers found that neither typical sinusitis signs and symptoms nor abnormal X-rays had any value in predicting the course of the disease. They also found that the disease lasted as long in patients taking amoxicillin as it did in patients taking a placebo, and that 247 of the patients recovered within 15 days.

Only two subjective complaints -- a general feeling of illness and reduced productivity -- predicted a slower recovery from sinusitis. "In patients who feel ill or who do not feel able to work, recovery will take a few days longer," De Sutter said. "But antibiotic treatment does not speed recovery in these patients."

"We don't know for sure why antibiotic treatment seemed to have no effect on the duration of the illness," De Sutter said. "But there two possible explanations: Either the illness and X-ray abnormalities were not caused by a bacterial infection, or if they were, the patients' immune systems were able to overcome the infection just as quickly without antibiotics."

The results of the study are published in the November/December issue of the *Annals of Family Medicine*.

"We advise antibiotic treatment only when patients have severe symptoms such as high fever and bad pain or if they have impaired immune function," De Sutter said. "This is a very small minority of patients. For all others, we advise 'watchful waiting.' "

Instead of prescribing antibiotics, doctors should focus on symptom relief: paracetamol for pain relief and intranasal decongestants in case of a blocked nose, De Sutter suggested. "Some patients experience subjective relief by inhaling hot steam," she added.

In a similar study in the same journal, researchers found the desire for pain relief was one of the main

reasons why sore-throat patients demand antibiotics. They concluded that it may be preferable to treat such patients with pain medications instead of antibiotics.

In most sinusitis cases, De Sutter believes that doctors should resist patient demand for antibiotics. "Doctors should explain to patients that antibiotics do not make a difference in the speed of recovery and can cause side effects," De Sutter said. "In our trial, diarrhea was more frequent with antibiotics. Other known side effects include nausea, oral or vaginal mold or yeast infection, allergic reactions and colitis."

The over-prescription of antibiotics, especially in children, also can cause the upper respiratory tract to become colonized with antibiotic-resistant bacteria such as *S. pneumoniae*, De Sutter said. "These resistant bacteria may cause infections that are more difficult to treat and may be passed on to other people."

"This is an interesting study because it looked at a large population of people with acute sinusitis," said Dr. David Sherris, chairman of otolaryngology at the University at Buffalo in New York.

"Most people do not need antibiotic therapy unless symptoms persist for more than seven to 10 days," Sherris said. "Plain X-rays of the sinuses add little or nothing to the diagnosis and treatment of acute sinusitis."

But that doesn't mean that imaging is of no value in sinusitis cases, he added. With prolonged or recurrent sinusitis or complications, computed tomography (CT) is the test of choice and works well, he noted.

"Early referral to an otolaryngologist is indicated in the most severe cases or where symptoms are out of proportion with findings," Sherris said. "The specialist can perform nasal endoscopy and accurately assess the most subtle CT scan findings."

Although the new study confirms some observations that Sherris has made during years of clinical practice, it would have been stronger if it had used the symptom system from the American Academy of Otolaryngology Head and Neck Surgery, Sherris said. "It is more complete than the one presented in this article, and though not infallible, is better to diagnose acute sinusitis."

Sherris also faulted the researchers' choice of antibiotics. "Amoxicillin, unless used in very high doses, is not a good first line antibiotic in acute sinusitis," he said. "Amoxicillin-clavulanate [augmentin] is a better choice, and is now generic in the United States. If there is an allergy to penicillin, physicians should consider azithromycin or a respiratory quinolone."

### More information

For more on rhinitis, head to the [U.S. Centers for Disease Control and Prevention](#).

SOURCES: An De Sutter, M.D., Ph.D., Department of General Practice and Primary Health Care, Ghent University, Ghent, Belgium; David Sherris, M.D., professor and chairman, otolaryngology, University at Buffalo, Buffalo, N.Y.; December 2006, *Annals of Family Medicine*

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