



Adult Allergy

Pediatric Allergy

Clinical Immunology

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## DIAGNOSIS AND TREATMENT OF SINUSITIS

The sinuses are air pockets in the skull that are lined with mucous membranes and connect into the nasal passages by way of tiny openings called ostia. Their function is to warm, filter, and humidify the air we breathe in. The sinuses produce mucus which normally flows into the back of the throat without our perception. However, postnasal drip is noticed when the amount of mucus produced is increased or consistency changes. This can be due to allergies, pollution, smoke, gastroesophageal reflux or sinus infections.

Allergies, irritants, changes in barometric pressure, and infection can cause a headache or feeling of pressure around the eyes, forehead or cheekbones, often referred to as a “sinus headache”. It is often difficult to discern the cause of headache, and any severe or long-lasting headache should be brought to your physician’s attention.

Sinusitis, or a sinus infection, occurs when the ostia become blocked, thus limiting the mucus drainage from the sinuses. This usually occurs from swelling due to infection or allergies, and can also occur in those with structural problems within the nose, such as nasal polyps or a deviated septum. Viruses and bacteria can then grow in the stagnant mucus, leading to yellow-green discharge, pain, fatigue and sometimes fever.

Occasionally, a condition known as chronic sinusitis develops. This usually develops in a person with abnormalities leading to chronic obstruction of the mucus drainage, such as untreated acute sinusitis, severe allergies, nasal polyps and anatomic abnormalities of the nose or sinuses. The symptoms of chronic sinusitis are often less severe than those seen in acute sinusitis, with persistent dull pressure, sore throat, post-nasal drip, and decreased sense of smell frequently reported. While most chronic sinus infections are due to bacteria, fungi may also be a cause.

Your doctor will evaluate your symptoms, and this, combined with examination, will help identify whether you have sinusitis. A sinus CT scan is often helpful in confirming the diagnosis and identifying predisposing factors such as polyps or anatomic abnormalities in the nose or sinuses.

The treatment of sinusitis varies, and medications most often used include decongestants, mucus thinning agents, anti-inflammatory nasal sprays and antibiotics. Those patients with recurrent or chronic sinusitis often benefit from nasal saline (salt water) irrigation. Saline solution may be purchased at the drugstore or easily prepared at home using 1 quart water, 1 teaspoon salt and 1 teaspoon baking soda. There are various types of delivery devices, such as bulb syringes, Waterpick type devices, and containers with pouring spouts. Nasal irrigation should be done regularly, with increased frequency when sinus congestion and irritation is present. You should wait at least 5 minutes after performing a nasal rinse before using any nasal medication sprays. The regular uses of nasal saline irrigation can decrease your need for antibiotics and thus decrease your chance of antibiotic resistance.

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