

# Pediatric Sinusitis

Your child's sinuses are not fully developed until late in the teen years. Although small, the maxillary (behind the cheek) and ethmoid (between the eyes) sinuses are present at birth. Unlike in adults, pediatric sinusitis is difficult to diagnose because symptoms of sinusitis can be caused by other problems, such as viral illness and allergy.

## HOW DO I KNOW WHEN MY CHILD HAS SINUSITIS?

The following symptoms may indicate a sinus infection in your child:

- a cold lasting more than 10 to 14 days, sometimes with a low-grade fever
- thick yellow-green nasal drainage
- post-nasal drip, sometimes leading to or exhibited as sore throat, cough, bad breath, nausea and/or vomiting
- headache, usually in children age six or older
- irritability or fatigue
- swelling around the eyes.

Young children are more prone to infections of the nose, sinus, and ears, especially in the first several years of life. These are most frequently caused by viral infections (colds), and they may be aggravated by allergies. However, if your child remains ill beyond the usual week to ten days, a sinus infection may be the cause.

You can reduce the risk of sinus infections for your child by reducing exposure to known environmental allergies and pollutants such as tobacco smoke, reducing his/her time at day care, and treating stomach acid reflux disease.

## HOW WILL THE DOCTOR TREAT SINUSITIS?

*Acute sinusitis:* Most children respond very well to antibiotic therapy. Nasal decongestant sprays or saline nasal sprays may also be prescribed for short-term relief of stuffiness. Nasal saline (saltwater) drops or gentle spray can be helpful in thinning secretions and improving mucous membrane function. Over-the-counter decongestants and antihistamines are not general effective for viral upper respiratory infections in children, and the role of such medications for treatment of sinusitis is not well defined. Such medications should not be given to children younger than two years old.

If your child has acute sinusitis, symptoms should improve within the first few days of treatment. Even if your child improves dramatically within the first week of treatment, it is important that you complete the antibiotic therapy. Your doctor may decide to treat your child with additional medicines if he/she has allergies or other conditions that make the sinus infection worse.

*Chronic sinusitis:* If your child suffers from one or more symptoms of sinusitis for at least 12

weeks, he or she may have chronic sinusitis. Chronic sinusitis or recurrent episodes of acute sinusitis numbering more than four to six per year, are indications that you should seek consultation with an otolaryngologist (an ear, nose, and throat—ENT—specialist). The ENT may recommend medical or surgical treatment of the sinuses.

***Diagnosis of sinusitis:*** If your child sees an ENT specialist, the doctor will examine his/her ears, nose, and throat. A thorough history and examination usually leads to the correct diagnosis. Occasionally, special instruments will be used to look into the nose during the office visit. An x-ray called a CT scan may help to determine how completely your child's sinuses are developed, where any blockage has occurred, and confirm the diagnosis of sinusitis. The doctor may look for factors that make your child more likely to get sinus infection, including structural changes, allergies, and problems with the immune system.

## **WHEN IS SURGERY NECESSARY FOR SINUSITIS?**

Surgery is considered for the small percentage of children with severe or persistent sinusitis symptoms despite medical therapy. Using an instrument called an endoscope, the ENT surgeon opens the natural drainage pathways of your child's sinuses and makes the narrow passages wider. This also allows for culturing so that antibiotics can be directed specifically against your child's sinus infection. Opening up the sinuses and allowing air to circulate usually results in a reduction in the number and severity of sinus infections.

Also, your doctor may advise removing adenoid tissue from behind the nose as part of the treatment for sinusitis. Although the adenoid tissue does not directly block the sinuses, infection of the adenoid tissue, called adenoiditis (obstruction of the back of the nose), can cause many symptoms that are similar to sinusitis, namely, runny nose, stuffy nose, post-nasal drip, bad breath, cough, and headache.

## **SUMMARY**

Sinusitis in children is different than sinusitis in adults. Children more often demonstrate a cough, bad breath, crankiness, low energy, and swelling around the eyes, along with a thick yellow-green nasal or post-nasal drip. Once the diagnosis of sinusitis has been made, children are successfully treated with antibiotic therapy in most cases. In the rare child where medical therapy fails, surgical therapy can be used as a safe and effective method of treating sinus disease in children.