SINUSITIS:
(SINUS INFECTION)

DEFINITION
Sinuses are moist air spaces within the bones of the face that normally drain into the nose. The sinuses are four sets of hollow spaces that are located in the cheekbones (maxillary sinus), the forehead (frontal sinus), behind the nasal passages (ethmoid sinus), and deep in the brain behind the nasal passages (sphenoid sinus). Sinuses are lined with the same mucous membranes that line the nose and mouth. When someone has a cold or allergies and the nasal passages become swollen and make more mucus, so do the sinus tissues. The drainage system for the sinuses can get blocked, and mucus can become trapped in the sinuses. Bacteria, viruses, and fungi can grow there and lead to sinusitis.

Sinus congestion can occur without an infection if one of the sinus openings become blocked from a cold or allergies. As germs multiply within the sinuses, pain and pressure can occur around the eyes, above the eyebrows, or over the cheekbones. When the sinuses become infected and swell or become irritated, this is called sinusitis (or sinus infection). These infections usually follow colds but can also occur with allergies. Sinusitis is common and easily treated.

Symptoms
Sinusitis can cause different symptoms for kids of varying ages. Younger kids often have cold-like symptoms, including a stuffy or runny nose and slight fever. It isn’t uncommon for colds and viral illnesses to persist for a week or longer in infants and toddlers. However, if your child develops a fever 5-7 days after cold symptoms begin, it could signal sinusitis or another infection (like bronchitis, pneumonia, or an ear infection). This should prompt a phone call to the office.

Many parents mistake cold-related headaches in young kids for sinus infections. But the sinuses in the forehead don’t start developing until kids are 6 or 7 years old and aren’t formed enough to get infected until the early teen years. So headaches in kids who have colds usually aren’t sinus infections.

In older kids and teens, the most common sinusitis symptoms are a cough that doesn’t improve after the first 7 days of cold symptoms, fever, worsening congestion, foul breath,
dental pain, ear pain, or tenderness in the face. Sometimes, teens who have sinusitis also develop upset stomachs, nausea, headaches, and pain behind the eyes.

Other symptoms can include a persistent yellow nasal discharge, headache, postnasal drip, a blocked nose, fever, and bad breath. In order to distinguish between viral sinus congestion and bacterial sinusitis, some combination of these symptoms should persist for more than 7-14 days in sinusitis.

**HOME TREATMENT**

**Nasal Washes:** Use warm water or saline nose drops followed by suction or nose blowing to wash dried mucus or pus out of the nose. Saline can be purchased as commercially available products or it can be made at home by mixing ¼ tsp. salt in 1 cup warm water and adding a pinch of baking soda. Using a nasal aspirator to irrigate the nose, you can do nasal washes at least two times a day or whenever your child can’t breathe through the nose.

**Nasal Steroids:** If prescribed, use as directed once or twice daily after nasal wash. These medicines reduce inflammation and swelling in the nasal and sinus tissues.

**Pain Relief Medicines:** Acetaminophen or ibuprofen can be given for a few days for sinus pain or any fever over 101.5°F.

**Oral Antihistamines:** If your child also has hay fever, give her allergy medicine. Otherwise avoid antihistamines because they can slow down the movement of secretions out of the sinuses.

**Antibiotics:** Oral antibiotics may be prescribed to treat cases of sinusitis thought to be caused by bacteria. Some doctors may recommend decongestants and antihistamines to help ease symptoms. These medications are designed to kill bacteria that are causing the sinus infection. Try not to forget any of the doses. If the medicine is a liquid, use a measuring spoon so you give the right amount. Also, an antibiotic should not be saved from one illness to the next because it loses its strength, and not all illnesses are treated with antibiotics. It may take three to five days for your child to feel significantly better. Even if your child feels better in a few days, give all the medicine to prevent the infection from worsening. An antibiotic course may last from 10 days to three weeks for sinusitis.

**Prevention**

Simple changes in your lifestyle or home environment can help lower the risk of sinusitis. For example, during the winter, when your heating system makes the air inside your home drier, using a humidifier can keep the humidity level of your home in a more comfortable range. This will stop dry air from irritating the sinuses and make them less of a target for infection. Remember to clear your humidifier regularly to prevent mold growth.
Although sinusitis itself is not contagious, it is often preceded by a cold, which can spread easily, particularly among family or friends. The most effective way to prevent germs is to teach your family the importance of frequent hand washing, particularly when they’re sick, as well as encouraging children to cover their coughs, which reduces the spread of germs thought the air.

Your child can return to school or day care when she is feeling better and the fever is gone.

**CALL OUR OFFICE IMMEDIATELY if**
- Redness or swelling occurs on the cheek, eyelid, or forehead.
- Your child starts acting very sick.

**Within 24 hours if**
- The fever or pain is not gone after your child has taken the antibiotic for 72 hours.
- You have other questions or concerns.

(Rev. 12/2013)