

Nasal and Sinus Disorders

Chronic Nasal Congestion

When nasal obstruction occurs without other symptoms (such as sneezing, facial pressure, postnasal drip etc.) then a physical obstruction might be the cause.

Common structural causes of nasal congestion:

- o Deviated septum
- o External nasal deformity
- o Turbinate Hypertrophy
- o Nasal valve collapse
- o Adenoid hypertrophy

Deviated Septum: The nasal septum serves as the divider between the left and right nasal passages. It is made of cartilage, bone, and a membrane on each side. If the septum is significantly deviated then air is not able to pass freely through the nose. Nasal congestion, nose bleeds, and sinus problems can all develop.

External Nasal Deformity: Nasal trauma can cause both outer and inner deformities which collapse the nasal airway. If external as well as internal problems are present, a septorhinoplasty might be recommended to correct the problems.

Turbinate Hypertrophy: Turbinates are small shelves of bone covered by vascular tissue. They help to warm and humidify the air that we breath. Sometimes the turbinates become congested, blocking the nasal passages. This is commonly associated with chronic rhinitis. When medical treatment fails, turbinate reduction can improve nasal congestion.

Nasal Valve Collapse: The narrowest portion of the nasal cavity is a slit-like passage just behind the nostrils. This area, called the nasal valve, is a commonly overlooked site of nasal obstruction.

Adenoid hypertrophy: The adenoid is a bed of tonsillar tissue (similar to the tonsils in your mouth) that is located behind the nose. Enlarged adenoids are a common cause of nasal obstruction in children. A simple X-ray can establish the diagnosis. Some children outgrow the problem. If symptoms are severe an adenoidectomy (removal of adenoid tissue) might be suggested.

Chronic Rhinitis

Inflammation of the nasal membranes produces rhinitis. Rhinitis can be allergic, non-allergic and inflammatory in nature. Allergic Rhinitis occurs due to various things including pollens, dust and dust mites molds, and even foods. Non-allergic Rhinitis results from substances that irritate the nasal membranes in a non-allergic fashion. Things such as cigarette smoke, perfumes and colognes, weather changes, changes in humidity, industrial pollutants and even stimulation from foods can cause nasal congestion. Inflammatory rhinitis occurs when viruses, such as those that cause the common cold, infect the nasal membranes.

Symptoms: Symptoms of rhinitis can include nasal congestion, post-nasal drip, nasal drainage, facial pressure, sneezing and watery itchy eyes. Swelling and inflammation in the nasal passages can lead to blockage of the sinus drainage paths and ultimately lead to sinusitis. About 40 million Americans per year suffer at least one episode of Acute Bacterial Rhino-Sinusitis. Symptoms can include nasal congestion, nasal drainage, facial pressure, loss of smell and taste, fever and even general malaise.

Costs related to these conditions are staggering. Direct costs (doctor visits, medications, etc.) and indirect costs (lost work and wages, baby sitters for children, etc.) add up to almost 9 billion dollars annually!

Diagnosis: A thorough evaluation by the physician including a history, physical examination, examination of the nose with a nasal endoscope, X-rays including CT scans and other test results such as allergy testing, help make the diagnosis. An accurate diagnosis is needed to determine the best treatment for the specific problem. Nasal endoscopy and CT scanning have significantly improved our ability to make an accurate diagnosis and better direct treatment. A nasal endoscopic examination done under local anesthesia in the office allows diagnosis of anatomic blockages that may contribute to sinusitis. CT scanning further identifies bony and mucous membrane blockages that can contribute to the problem.

Treatment: First an accurate diagnosis must be made as mentioned above. Many conditions can be treated medically with nasal steroid sprays, antihistamines/decongestants, allergy shots or antibiotics when indicated.

Acute Rhino-Sinusitis

Acute Rhinosinusitis is an inflammatory condition involving the sinuses as well as the lining of the nasal passages. It is distinguished from a common upper respiratory infection by either its duration (lasting more than 10 days) or specific symptoms as described below.

Symptoms: Fever, facial pain/pressure, cloudy nasal discharge, and postnasal drip are the cardinal symptoms of acute sinusitis. Associated symptoms often overlap with many of those for allergic rhinitis, the common cold, as well as migraine variant. This occurrence can often make the proper diagnosis and treatment challenging.

Diagnosis: The history and physical exam are most important. When indicated nasal endoscopy and sinus radiographs may occasionally be helpful.

Treatment: The vast majority of acute sinusitis is caused by bacteria. For this reason antibiotics are commonly prescribed. Nasal sprays and mucous thinners are often useful adjuncts.

Chronic Sinusitis

Chronic sinusitis describes inflammation of the nasal passages and sinuses lasting longer than 12 weeks. Cardinal symptoms are yellow nasal drainage, nasal obstruction, facial pressure, and a decreased sense of smell. Associated symptoms can include post nasal drip, headache, fatigue, bad breath, and chronic nonproductive cough.

Diagnosis: A complete history and physical examination are necessary. Nasal Endoscopy is commonly performed to check for the presence of polyps. Polyps are inflammatory tissue that can frequently be associated with chronic sinusitis. A CT scan of the paranasal sinuses is frequently ordered to confirm disease and evaluate the sinus anatomy.

Treatment: Causes of chronic sinusitis are often multifactorial, and treatment involves addressing environmental, immunological, anatomical, and microbial components. Antibiotics, nasal steroids, and nasal irrigation are mainstays of treatment. An allergy evaluation is often helpful as well. When medical treatment fails, Endoscopic Sinus Surgery might be considered.

Nasal Polyposis

Classic nasal polyps are benign intranasal tumors commonly associated with allergy, chronic rhinitis and abnormal nasal vasomotor response. Their precise etiology remains unknown. Some believe they are a response to a specific allergy. Others contend they are a byproduct of a chronic infection. In any event, most patients are asymptomatic for years prior to

seeking medical attention. Polyps however have a propensity for slow but inexorable growth, and most patients eventually become symptomatic.

Symptoms: The two most common symptoms are nasal obstruction and clear nasal discharge. A history of recurrent sinus infections, allergic rhinitis, and diminished smell are also frequent findings. Pain, pressure, and cloudy discharge are typically absent unless an acute sinus infection is also present.

Diagnosis: A thorough exam including nasal endoscopy easily makes the diagnosis. CT scans should be performed in symptomatic patients and those with unilateral disease. Unilateral polyps can occur in conjunction with chronic infection, communication with the central nervous system, or with certain tumors. Furthermore, all children with polyps should be tested for serious diseases such as cystic fibrosis.

Treatment: Nasal steroids, nasal irrigation, and allergy testing are first line therapy for mild polyposis. Chronic sinusitis is addressed medically if it is also present. Symptoms can often be controlled for years with this regimen. Unfortunately, regardless of treatment, polyps tend to enlarge slowly to the point where many patients are symptomatic despite maximal medical treatment. Endoscopic sinus surgery is very beneficial in this setting.

While most polyps are associated with mild rhinosinusitis and slow growth, polyps behave quite aggressively in a subset of patients with a known history of aspirin sensitivity and asthma (Samter's Triad.) These patients should be warned about early recurrence regardless of treatment.

About Sinus Surgery

At Lakeshore Ear Nose and Throat we follow the paradigm of “functional endoscopic sinus surgery.” To paraphrase, the goal of modern sinus surgery is to pinpoint the diseased sinus cells and open them in a minimally-invasive fashion, while preserving the surrounding, non-diseased anatomy. Surgery is performed through the nostrils using fiberoptic telescopes and instruments only a few millimeters in diameter. No skin incisions are required in the overwhelming majority of patients.

Surgery is always performed in a hospital or certified ambulatory surgery center. Patients are typically given a choice of sedation (“twilight”) or general anesthesia, and most are back home within a few hours of surgery.

We also routinely employ computer-assisted imaging during surgery. The instatrak system provides real-time 3-dimensional representation of the sinus anatomy during surgery. This aids in surgical planning and execution while decreasing the chance of complications.