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Sinus Infections

Did you know...

Sinus problems affect an estimated 30 to 35 million Americans - making them one of the most common complaints of patients seeking medical attention?

There are four pairs of sinuses in the head that control the temperature and humidity of the air reaching the lungs no matter how hot, cold, or dry the weather Sinuses begin as pea-sized pouches in the newborn, extending outward from the inside of the nose into the bones of the face and skull. They expand and grow through childhood into young adulthood. They are air pockets: cavities that are lined with the same kind of membranes lining the nose, and are connected to the inside of the nose through small openings about the size of a pencil lead.

Normally the nose and sinuses produce between a pint and a quart of mucus secretions per day This passes into and through the nose, picking up dust particles, bacteria and other air pollutants along the way The mucus is swept to the back of the throat by millions of tiny hairlike structures (cilia), which line the nasal cavity; and is swallowed. In the stomach acids destroy any dangerous bacteria. Most people do not notice this mucus flow because it is just a normal bodily function.

Symptoms

Sinus infection can be divided into two types, acute (severe) and chronic (on-going) sinusitis.

Acute Sinusitis:

If a cold becomes worse, acute sinusitis may develop. You should see a doctor if you experience the following:

- Green/yellow nasal discharge
- Facial pressure around the cheeks, eyes, and forehead, especially with swelling
- High fever (102 F and above)
- Upper molar tooth pain

Chronic Sinusitis:

Patients with chronic sinus infections probably have had one or many prior episodes of acute sinus infection, which have failed to be cured. They may also complain of having a continuous cold. Common symptoms include:

- low grade fever (less than 101 F)
- Nasal congestion/nosebleed
- Headaches
- Chronic sore throat and cough
- Poor decreased, or absent sense of smell
- Bad breath

What Causes Sinus Problems?

When the openings into the sinuses become plugged up sinus pressure develops and the nose may feel blocked. These blockages may be caused by infections, irritants, anatomic (physical) problems, and allergies. Sinus disease can be common among family members, and stress may play a role in chronic sinus disease.

Infections

Most adults will get colds and upper respiratory infections about three times per year Children get them more frequently Bacterial infections often follow the common cold. When the mucus changes from clear to yellow or green, it usually means a bacterial infection has developed. Both viral and bacterial infections cause swelling of the tissues inside the nose and thickening of the normal mucus. This slows down or even stops proper sinus drainage

Irritants

Air pollution, smoke, and chemical irritants (e.g., some sprays containing pesticides, disinfectants, and household detergents) may cause swelling and blockage of the narrow channels from the nose to the sinuses, leading to bacterial growth and sinus infection.

Anatomic Problems

In some people, the cartilage and bone in the center of the nose (called the septum) can be shifted to one side through injury while others may be born that way If this shift is severe, sinus drainage on that side of the nose can be affected. This can lead to complete closure of one or several of the sinus channels. Mucus then builds up behind these obstructions and causes sinus infection. If the swelling becomes severe, the lining of the sinuses can grow excessively These growths are called polyps, which can cause further blockage of the sinus channels. Trapped or stagnant mucus provides a breeding ground for bacteria.

Allergies

Allergies can cause inflammation inside the nose Common symptoms of an allergic reaction include: nasal stuffiness, runny nose, sneezing, and itchy watery eyes. Chronic sinusitis is sometimes associated with asthma. Allergies are responsible for asthma in some patients and may also cause nasal stuffiness, resulting in a strain on the lungs that makes the asthma worse

Diagnosis & Treatment

Before starting treatment, your doctor will take a complete medical history and perform a physical examination. Acute sinusitis is usually treated with antibiotics and decongestants. Chronic sinusitis may need long-term treatment (eight weeks or longer), for maximum effectiveness. Medical treatment options include antibiotics, decongestants, medicines that thin the mucus, nasal steroid sprays, and oral steroids.

Some antihistamines have side effects, and only patients with documented allergies should use them. Discuss over-the-counter antihistamines with your physician; the side effects may be greater than the benefits.

If treatment does not cure your sinusitis, or it recurs, a CAT scan may be necessary to evaluate the sinuses and the drainage channels in the nose that are not visible on a routine examination. Small telescopes (endoscopes) may also be used to look directly inside the nose

Sinus Surgery

Surgery should be considered only if medical treatment fails or if there is a nasal obstruction that cannot be corrected with medications.

When surgery is needed, the ENT specialist can choose from a number of different options, depending on the severity of sinus disease and the type of surgery best suited to the patient. Surgery can be performed under the upper lip, behind the eyebrow next to the nose or scalp, or inside the nose itself.

Another type of surgery is called functional endoscopic sinus surgery (FESS). It is used for certain types of sinus disease. With the endoscope, the surgeon can look directly into the nose, while at the same time, remove diseased tissue and polyps, and clear the narrow channels between the sinuses. The decision whether to use local or general anesthesia will be made between you and your doctor, depending on your individual circumstances.

Getting Ready for Surgery

Before surgery, be sure you understand all the possible risks and benefits of the procedure and you are aware of realistic results, recovery time, and post-operative care. Good results require not only good surgical techniques, but the cooperation of the patient throughout the healing process. It is especially important for patients to follow pre- and post-operative directions.

After the Operation

Following surgery, endoscopes may be used to monitor healing, to keep the nose clean, and to prevent recurring obstructions. Sometimes the results are not immediate. It may take 12 weeks or longer before the sinus cavity heals. Patients with chronic sinus problems who are hypersensitive to air pollution or with allergies may require on-going medical care.