

CHAPTER 2

SIGNS AND SYMPTOMS OF SINUS DISEASE

NASAL BLOCKAGE AND CONGESTION

The symptoms of sinusitis include nasal blockage (the most common symptom), facial pressure or pain, snoring, postnasal drainage and bad breath, fatigue, and recurrent infections, among others (TABLE 1). An important part of treatment of any of these various symptoms is to identify and to avoid, whenever possible, the causative factor. Patients who smoke cigarettes should quit promptly. If they recognize a substance they are allergic to, they should avoid it as much as possible and consider treatment by an allergy specialist. Patients with any underlying medical condition or illness should be under the care of an appropriate physician. A patient’s general state of health and nutrition affects every part of the body, including the sinuses. For this reason, it is advocated that patients maintain a healthy diet, including taking appropriate vitamin supplements and getting regular exercise.

Factors Associated with the Diagnosis of Chronic Rhinosinusitis

<u>Major factors</u>	<u>Minor factors</u>
Facial pain/pressure*	Headache
Facial congestion/fullness	Fever
Nasal obstruction/blockage	Halitosis
Nasal discharge/purulence/discolored nasal drainage	Fatigue
Hyposmia/anosmia	Dental pain
Purulence in nasal cavity on examination	Cough
	Ear pressure/fullness

*Facial pain/pressure alone does not constitute a suggestive history for chronic rhinosinusitis in the absence of another major nasal symptom or sign

TABLE 1 - Factors Associated with the Diagnosis of Chronic Rhinosinusitis

Nasal congestion and nasal blockage has many causes. It is useful to divide them into causes that are treated medically and causes that require surgical treatment. Medical causes include the common cold (viral infection—a temporary cause), bacterial sinusitis, allergy, sensitivity to dust, smoke, pollution, and other irritants. Other causes include anatomic abnormalities such as a deviated septum, nasal polyps, obstructed sinuses that do not improve with medication, over-enlarged turbinates, obstructing adenoids, and other causes. Sometimes scarring from trauma or prior nasal surgery can cause nasal obstruction. In rare cases, a sinus or nasal tumor can lead to blockage and obstruction. Chronic nasal obstruction must be evaluated by a specialist.

SNORING

There are many causes of snoring, and one of them is nasal obstruction. Nasal obstruction causes a patient to breathe through the mouth, which causes greater vibration of the tissue in the

back of the mouth and throat when sleeping and may lead to snoring or increased snoring. A long or floppy soft palate may also contribute to snoring (as well as obstructive sleep apnea). Patients who snore should check with a specialist to find out the cause. Maybe it is because of nasal blockage, in which case a nasal treatment may fix the problem. Again, the key to effective treatment is identifying the correct anatomic and physiologic cause of the problem.

POSTNASAL DRAINAGE

Postnasal drainage is a symptom that may result from rhinitis or sinusitis. Abnormal swelling of the nasal and sinus membranes causes them to produce thick, abnormal mucus, which can contribute to nasal blockage, and also can drain into the back of the throat and cause cough, sore throat, and so forth. Treatment of postnasal drainage includes treating rhinitis and sinusitis. Sometimes, the *sensation* of postnasal drainage may actually come from acid reflux. Acid from the stomach can travel in a retrograde direction – up the esophagus – and spill onto the voice box (larynx). The irritation to the larynx, and associated throat-clearing and felling of “something stuck in my throat” can contribute to the feeling of postnasal drainage. An ear nose and throat doctor can quickly and easily evaluate you for this Laryngopharyngeal Acid Reflux (see Chapter 7) with a quick clinic examination. In this case, as in most instances with the sinuses and throat, effective treatment depends on proper diagnosis!

HALITOSIS

A common cause of halitosis (bad breath) is thick postnasal drip. This thick mucus can be white, yellow, or even green. If a patient has sinusitis, the mucus is stagnant in the sinuses and becomes foul-smelling, then it drips back into the throat to give bad breath. No mouthwash will take this bad breath away. The patient needs to see a sinus specialist. As part of the evaluation of postnasal drainage, the specialist will evaluate the nose and sinuses, as well as the throat.

CHRONIC COUGH AND SORE THROAT

Two of the most common causes of cough are postnasal drip and acid reflux (Laryngopharyngeal reflux). Patients with chronic cough, especially if they smoke, must have a specialist examine their larynx (voicebox) to evaluate the possibility of a tumor or mass of the larynx. This only takes a few minutes and is done in the office under topical anesthesia with a small flexible endoscope. Patients with chronic cough should also have a chest X-ray and other evaluation by their primary care physician. Treatment of the cause of the cough often improves or resolves patients’ troublesome coughs. However, sometimes a cough can persist even after the cause has been treated. Reexamination is important when a cough persists. However, this may be the “cough reflex.” Often the cough cycle must be broken by a cough suppressant.

An associated symptom may be a persistent sore throat. As with chronic cough, persistent sore throat should be evaluated by a specialist. If the cause is due to allergic or other irritation, treatment is often straightforward and effective. In other cases the presence of a mass needs to be ruled out. This can often be done with a simple clinic laryngeal examination.

FATIGUE

Patients who experience fatigue should see their primary doctor to evaluate the many possible causes. Thyroid dysfunction, for example, commonly manifests with fatigue. However, chronic sinusitis—like any chronic illness— can also take its toll on a patient. It can decrease energy levels and make the individual less productive. Several studies have confirmed that fatigue is a common presentation of patients with sinusitis. If a patient has sinusitis, this can be a contributing factor to fatigue.

FACIAL PAIN AND HEADACHE

Facial pain and headache have many causes: tension headache, migraine headache, stress headache, cluster headaches, reflex sympathetic dystrophy, and more. Sinusitis does contribute to facial pressure and pain, and it can reduce resistance to other kinds of headaches—that is, sinusitis can lower the threshold or make the patient more disposed to get another type of headache. While some patients develop headache, others may have pain, tenderness and swelling around the eyes, cheeks, nose or forehead.

The complete and thorough evaluation of headache includes evaluation by a neurologist and often an ENT specialist. If a patient's doctor feels that the individual's pain may be more sinus related, the doctor may want to start with a sinus specialist, who will examine the patient thoroughly and will search out all of the many causes of facial pain that can be treated. If the specialist doesn't find anything definitive, there may still be hope of other effective treatment, and a neurologist may also suggest treatments. In a rare patient, ENT and neurologic exam finds no cause for the headache. In these cases, a pain management specialist is enlisted into the team, with frequent positive results that are usually a surprise to the patient.

FACIAL PAIN AND PRESSURE WITH AIRPLANE TRAVEL

Nasal congestion secondary to sinusitis and other conditions is a relative contraindication to air travel. This means that patients prone to nasal congestive disorders should only travel by airplane if they have first consulted with their physician. The physician may determine that it is not safe to fly or may feel that the patient can fly with proper pretreatment. The risks of flying with nasal congestion include severe facial pain, damage to the eardrums including bleeding and perforation, dizziness or vertigo, sinus bleeding, and other even more serious conditions.

It is recommended that patients with nasal congestion take a systemic decongestant and also spray the nasal passages with a topical long-acting nasal decongestant before the flight and before the descent. Such patients should check with their doctors to make sure that they can take these medications—for instance, patients with high blood pressure may want to avoid these medications. Patients with allergies may also take an antihistamine, under a doctor's supervision. In some cases, a doctor may wish to prescribe other medications, such as oral prednisone, a few days prior to travel. Medical care should be available at the patient's destination in case sinusitis develops.

Air travelers with sinusitis are also advised to chew gum, swallow frequently, and learn how to perform the Valsalva maneuver to clear their ears. One way to perform this maneuver is to hold the nose and gently generate pressure against the closed mouth and glottis every 30 seconds.

ACHING IN THE UPPER JAW AND TEETH

The maxillary (cheek) sinuses are located just above the teeth. In fact, the roof of the mouth (where the dental roots live) is the floor of the cheek sinuses. While it is not uncommon for dental problems to lead to infection in the cheek sinuses, an infected cheek sinus may also lead to dental pain. Once the maxillary sinuses are effected, infection can then spread to the adjacent sinuses.

THICK NASAL DISCHARGE

Some patients have recurrent infections with thick, sometimes discolored, nasal discharge. Sometimes this thick mucous drains down the back of the throat. The sinus specialist must find out why patients get recurrent infections and treat this problem. Some causes are unavoidable—for instance, patients with small children in elementary school who bring home cold after cold will have to wait until their children grow older. (Actually, even in this situation the sinus specialist can often help with preventative medical treatment.) Patients with sinus blockage predisposing them to infections may find medical and/or surgical therapy to be helpful. The sinus specialist may need to check the function of the patient's immune status—while this is usually normal, occasionally a patient has low immune defenses that can be helped.

DECREASED SENSE OF SMELL AND/OR TASTE

Smell and taste sensation go hand in hand. Patients who lose their sense of smell probably also find that food is bland or tasteless. Although annoying, this can actually be a more serious problem because the patient cannot tell if food is spoiled or if there is a household emergency such as fire, which they would not be able to detect. The nerves for smell are located in a very small area high in the nasal cavity. Even a small amount of blockage in this location can cause loss of sense of smell (which is why patients lose sense of smell when they have a cold, for instance). Sinusitis is a common cause of loss of senses of smell and taste. However, there are a number of other problems that can cause a loss of sense of smell, including tumors, and this must be evaluated by an ENT specialist.

RUNNY NOSE

Some patients may complain of persistent runny nose. This “rhinorrhea” may occur alone, or in association with sinusitis. The causes are varied. In allergic rhinitis, an inhalant allergen is the cause. Others suffer from infectious rhinitis due to a bacteria or virus, while some patients have gustatory rhinitis – triggered by eating. Some common medications may cause rhinitis (“Drug-induced rhinitis”). Others are have a runny nose triggered by a substance at their

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workplace. Whatever the cause, a precise diagnosis is the key to an effective treatment. Fortunately most patients with a chronic runny nose will benefit from simple, targeted medical treatments.