



HEADACHES AND SINUS DISEASE

INTRODUCTION

Headache is very common and affects millions of adults in the US. Headaches have many causes and can present in a variety of ways. Most headaches are not related to sinus disease. Among patients who have sinus disease, some patients have headaches related to, or exacerbated by, their sinusitis. However, many patients with sinus disease have headaches that are not caused by their sinusitis. Which headaches can be attributed to sinus disease can be difficult to determine, but the information below can help.

HEADACHES RELATED TO SINUS DISEASE

Sinus disease can trigger headaches caused by swelling of the lining of the sinuses. The swelling of the sinus lining traps mucus and fluid leading to pressure and congestion. This is most common in acute infection or during an exacerbation of chronic sinus disease. The headache will coincide with the onset or worsening of sinus symptoms and will improve as sinus disease improves.

The International Headache Society created diagnostic criteria for “headache attributed to sinusitis”:

1. Frontal headache (forehead) with pain or pressure in one or more regions of the face, teeth, or ears
2. Evidence of rhinosinusitis by clinical evidence, radiology imaging (CT or MRI), nasal endoscopy (See Nasal Endoscopy), or by laboratory data
3. Headache and facial pain develop at the same time as the sinusitis symptoms
4. Headache resolves within a week of appropriate sinusitis treatment

MIGRAINE VS SINUS RELATED HEADACHES

“Sinus headache” is often used to describe a facial pressure or facial pain headache. However, in many large studies migraine headaches are most commonly misdiagnosed as “sinus headache”. In fact, as many as 88% of people who think they have a “sinus headache” actually have migraine. The confusion occurs because in both migraine and sinus headaches pain can be felt over the frontal sinuses (forehead) and other areas of the face. Migraine and sinus disease related headaches can also occur at the same time. Patients with migraine may have nasal drainage and feelings of congestion that are mistaken for sinusitis. Additionally, allergies can exacerbate or even trigger migraine in some patients.

	Migaine Headache	Headache related to Sinus Disease
Weather change is a trigger	YES	
Watery eyes	YES	YES
Nasal congestion	YES	YES
Pain over the sinuses	YES	YES
Nausea or Vomiting	YES	
Dizziness	YES	
Blurry vision	YES	
Light or sound sensitivity	YES	
Headache changes with sinus congestion or drainage		YES
Headache begins at the same time as symptoms of sinusitis (ex: purulent nasal drainage)		YES
Adapted from International Headache Classification and references		

OTHER COMMON HEADACHES MISTAKEN FOR SINUS HEADACHES

In addition to migraine, there are other common headache disorders that can be mistaken for “sinus headache”. These headaches can develop from stress, chemical imbalances, or muscle spasm and strains.

One example is a tension headache, which is the most common form of primary headache. It can masquerade as sinus headaches due to referral of pain from muscles in spasm to areas associated with the sinuses and neck muscles (Table 2). These can be infrequent or occur often. They may last for as little as 30 minutes to days. Often the pain is mild to moderate. While nausea does not occur, light or noise sensitivity may. Typically, one can perform most of their daily activities during a tension headache.

Muscle in spasm	Region of Pain
Temporalis	Above eyes /forehead Temple Corners of the mouth
Sternocleidomastoid	Occiput (lower back of head) Ear Side of forehead Above/ Around the eye
Trapezius	Behind Ear Side of the eye
Splenius	Crown of the head (top of the head in the back)
Adapted from references	

Another example is a cluster headache. These headaches can cause severe unilateral (one-sided) pain at the level of the eye, above the eye, the temple, and the side of the forehead. The pain lasts for 15 minutes – 3 hours. It can be associated with a combination of symptoms: watery eyes, eye redness, clear nasal drainage, nasal congestion, eye lid swelling or drooping, facial sweating and restlessness.

SUMMARY

It can be challenging to determine the cause of a headache. Multiple headache types can even occur at once. The type of physician to see for help depends on your overall symptoms. For non-sinus headaches you should consult your primary care physician or a neurologist (preferably a headache specialist). For sinus disease related headaches, you should see your local rhinologist for further evaluation.

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