



## Ear, Nose & Throat Consultants of North Mississippi

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### ENDOSCOPIC SINUS SURGERY INFORMATION

#### Sinusitis-the underlying problem

Sinus disease, or sinusitis, is one of the most common problems treated by both primary care physicians and otolaryngologists. Not all nasal signs and symptoms, such as nasal congestion, recurrent headaches, and postnasal drainage, are related to true inflammation within the sinuses. Symptoms that suggest sinus involvement may include facial pressure or pain, purulent nasal discharge or postnasal drainage, chronic cough, and hoarseness. These symptoms may occur in the absence of any objective sinus problem. The diagnosis of sinusitis must, therefore, be based on an assessment by your physician.

Most patients with sinus complaints or sinusitis can be successfully treated with medicines. This treatment may consist of antibiotics, decongestants, nasal spray, and evaluation and treatment of allergies. The majority of persons with sinusitis do not require any operative procedures.

#### Who benefits from sinus surgery?

Sinus surgery is indicated in some patients when symptomatic infections are frequent or when chronic inflammation causing persistent symptoms is present, despite adequate medical treatment. At the time of your initial evaluation in this office, it is helpful if you furnish information detailing your past nasal and sinus history, including medications used and any surgical procedures performed in the past. Plain sinus x-rays are occasionally needed for evaluation of the current status of your sinus condition. However, specialized diagnostic studies, such as computerized tomography (CT) of your sinuses, is often necessary for determination of the exact site of your sinusitis. The CT scan is particularly useful in defining the anatomy and status of the ethmoid sinuses. The ethmoid sinuses resemble long rectangular boxes situated high in the nose between the eyes. These sinuses are particularly important because the larger frontal and maxillary sinuses drain and ventilate through the ethmoid sinus system.

#### What is endoscopic sinus surgery?

Endoscopic sinus surgery is a surgical method for the treatment of sinus disease that utilizes rigid fiberoptic telescopes to allow direct, up-close visualization of the areas undergoing treatment. Consequently, endoscopic sinus surgery allows for careful and accurate removal of the diseased tissue in critical areas of the ethmoid sinuses, improving ventilation and drainage of the larger sinuses. The operation, therefore, speeds the resolution of any chronic inflammation and prevents recurrent infection.

The advantage of endoscopic surgery over conventional sinus surgery is greater precision and less removal of normal tissue. Endoscopic surgery is done completely through the nose without any external incisions and is usually accomplished on an out-patient basis.

The procedure takes place in the operating room and may be done with either local anesthesia or, more commonly, under general anesthesia. Most patients are discharged home on the same day. However, admission for overnight observation may be recommended in some cases. Placement of nasal packing is usually not necessary. When nasal packing is used, it usually involves placement only of a small hemostatic sponge that is removed the following day.

Post-operative care, both at home and in the office, is an extremely important factor in the success of this operation. We will provide you with a detailed instruction sheet regarding home care. The first two follow-up appointments will be scheduled at seven to ten days intervals following the operation, and at longer intervals thereafter. Sinus cavities heal at variable rates depending on multiple factors, including the extent of underlying disease, extent of surgery, and other variables. Nasal endoscopy is usually necessary in the office following the surgery to control for proper healing and prevent scarring.

#### Risks and Complications

Endoscopic sinus surgery represents a dramatic improvement in surgical management of sinus disease compared to the more classical techniques. As stated previously, the procedure is a more conservative method of surgical management. Consequently, the probability of complications is decreased. Although very unusual, certain complications are known to occur and are outlined below.

1. Bleeding may occur during sinus surgery, requiring cessation of the operation and placement of nasal packing. The same is true in the period immediately following surgery. Blood loss is very rarely so significant as to require transfusion.
2. General anesthesia carries the same risks of general anesthesia for any operation. These problems are very unusual but may be quite serious should they occur. IF you have significant problems in other aspects of your health such as with your heart or lungs, you will need to discuss these thoroughly with both us and your anesthesiologist.

3. As the bony orbit and eye are immediately next to the ethmoid sinuses, injury to these structures is possible. The least severe form would represent some slight bleeding into the tissues surrounding the eyeball, resulting in mild swelling of the eyelids and discoloration. This clears spontaneously. Rare reports of visual loss in one eye have been reported. Tearing and temporary double vision are also known, but rare, complications of sinus surgery.
4. The intracranial cavity and brain are the structures located immediately above the ethmoid sinuses. An operation in this region carries a small risk for penetration of the bony wall resulting in a leakage of fluid from around the brain, into the nose. Should this occur, a pathway for infection to ascend from the sinuses into the intracranial cavity is created. This rare complication could extend your hospitalization or require additional surgery for correction.
5. Occasionally following sinus surgery, air may be observed in the soft tissues of the face surrounding the sinuses, especially if the nose has been blown. This is a transient event that spontaneously resolves.
6. There may also be a short-lived numbness or pain in the upper front teeth for a few days or weeks.
7. The most common adverse outcome following endoscopic sinus surgery is recurrent sinus disease. Studies examining large series of patients show that 85% of patients have excellent long-term results as defined by an improved quality of life and decreased need for antibiotics. Some patients do have a persisting degree of sinus problems that may require occasional medical treatment. However, the majority of patients are completely cured of their sinus problems by the operation. As noted, there are some patients who are no better following the operation and, on rare occasions, there are patients who may actually have worsening of their sinus problems. A small amount of patients may require revision or secondary endoscopic sinus operations with some requiring more conventional, open sinus surgery. Long-term studies of patients demonstrate that 15-20% of patients undergoing sinus surgery require revision within ten years of the initial operation.

In summary, medical treatment is preferable to surgery in most patients with nasal and sinus problems. If medical therapy proves inadequate for resolving chronic sinus disease or if recurrent infections are problematic, then endoscopic nasal and sinus surgery may offer the greatest likelihood for resolving the problem. Endoscopic sinus surgery has been well proven to be safe and effective as a means of managing this problem.