

# ENT SURGICAL CONSULTANTS

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## ENDOSCOPIC SINUS SURGERY (4/14)

### **Who Qualifies for Endoscopic Sinus Surgery?**

Patients with chronic sinus problems documented by x-ray who do not respond to medical therapy are candidates for endoscopic sinus surgery. Symptoms of sinus disease can include facial pain, above or below the eyes, fullness or pressure, blocked nasal breathing, persistent nasal odor, postnasal drainage or drip, and occasional headaches. Patients with polyposis almost always have sinus disease because polyps block sinus drainage. However, many of these symptoms can occur in the absence of sinus disease. Allergy and chronic nasal congestion are examples of problems causing symptoms similar to sinusitis, but not helped by endoscopic surgery. Your doctor is capable of deciding whether or not you have sinusitis.

Most people who have proven sinus disease do not need surgery, but can be treated medically using antibiotics, nasal irrigations, nasal hygiene, nasal steroid sprays, or allergy immunotherapy. Your doctor can best decide appropriate medication.

Surgery may be necessary if medical therapy is not successful. Usually this is due to an infected or inflamed area does not clear up despite anti-inflammatory treatment and antibiotics.

### **What is Necessary to Find Disease Which is not Responsive to Medical Therapy?**

Previous records of care, especially prior CT scans, are very helpful. During your visit a full head and neck examination will be performed with special attention to your nose and sinuses. It may be necessary to repeat a CT scan of the sinuses to further evaluate sinus disease and to act as a surgical map pointing to disease that needs removal.

If surgery is necessary, surgery will be scheduled as an inpatient or outpatient depending on your overall health. Your doctor may recommend using a special computer guidance system during surgery to increase the safety of the procedure in difficult situations. This usually requires an additional CT scan of the sinuses wearing a special headset. If you are given a headset, please bring this with you on the day of your surgery.

### **What is Endoscopic Sinus Surgery?**

Endoscopic sinus surgery differs from conventional intranasal surgery in that it stresses careful diagnostic work-up to identify precisely the cause of the problem. Sometimes an office exam with an endoscope or CT scan may identify disease that ordinarily would not have been found.

The principle of endoscopic surgery is that when the underlying cause of disease is found, that problem is corrected eliminating more extensive surgery. Secondary problems will usually resolve when the primary problem is corrected. This usually requires continuous medical therapy antibiotics, nasal irrigations, and nasal sprays after surgery to improve this reversible disease with less surgery. The nasal linings do not function properly for several months while adjusting to the new anatomy after surgery. This necessitates vigilant nasal hygiene and sporadic medical therapy postoperatively.

The advantage of endoscopic sinus surgery is that, in general, less surgery is needed, normal tissue is preserved and precision surgery can be performed without nasal packing. The result is faster healing and less discomfort postoperatively.

Sinus surgery is most commonly done under general anesthesia. Any patient undergoing outpatient surgery should understand that hospitalization might be necessary if any problems occur. Usually nasal packing is not required, but return visits are necessary after surgery to clean the sinus cavities and monitor the healing process. Please take your prescribed pain medication prior to your postoperative visits to make the cleaning procedure more comfortable. These visits are routinely scheduled every 7-14 days until the nose is healing well and then less frequently. You will participate in your care by taking prescribed medications and irrigating your nose with salt water at least four times per day. If packing is required, you will return in a few days after surgery for removal.

At times, less invasive Balloon Sinuplasty can be offered. Since there is no cutting of nasal bone or tissue, recovery is typically fast and risks are dramatically reduced. Your ENT doctor opens inflamed or narrowed sinuses the same way heart doctors open up blocked arteries during balloon angioplasty.

Occasionally further endoscopic surgery may be necessary for disease which recurs. Endoscopic sinus surgery, while a marked improvement in the treatment of sinus disease, does not always cure everyone. Some patients, especially those with nasal polyps may have recurrent disease.

### **What are the Complications, Risks and Alternatives of Endoscopic Surgery?**

In general the complications and risks of endoscopic surgery are the same as those for conventional intranasal sinus surgery, however, because of better visualization and special instrumentation, the risks of surgery are reduced. Balloon Sinuplasty reduces these risks even more. Nevertheless, each patient should be aware of the potential complications.

- **Bleeding**  
Bleeding is a possibility in any nasal or sinus surgery because of the extensive blood supply. Fortunately significant bleeding requiring termination of the procedure and nasal packing is rare. However, certain precautions are necessary, such as the avoidance of all anti-inflammatory medication (aspirin, Ibuprofen, and Naproxen, *Motrin, Advil, Aleve, Lodine, Mobic*, etc) for two weeks prior and for three weeks after surgery. *Tylenol and Celebrex* are not a problem.
- **Failure to Cure the Problem of Recurrent Disease**  
Disease may not be cured by endoscopic surgery or may recur at a later time. While endoscopic surgery reduces the chances of this occurring, a risk of persistent or recurrent disease is possible which may require subsequent intervention.
- **Postoperative Discharge**  
Postsurgical blood-tinged drainage or clots may occur up to two weeks after surgery. This is not abnormal and will clear. Blowing of the nose should not be attempted for two weeks after surgery.
- **Risk of Anesthesia**  
Although this procedure may be performed under local anesthesia, most patients prefer general anesthesia. Although usually safe, general anesthesia has some rare risks and complications. This may be discussed with your anesthesiologist.
- **Cerebrospinal Fluid Leak**  
Since the area just above the nose is the brain, there is risk of entering the thin wall separating nose from the brain. A thin clear fluid that surrounds the brain can then leak into the nose. This fluid can become infected and meningitis could occur. However, this complication is rare. If a leak does occur it may be able to be stopped during surgery. If not, it may close on its own. Surgery to close the hole is necessary if the leak persists. Endoscopic visualization and computer image guidance often helps to reduce this complication even further. Any surgery involving removal of polyps or extensive sinus disease increases this risk.
- **Eye Injury and Loss of Vision**  
Any extensive surgery in the sinuses may result in loss of vision. While endoscopic and computer image guidance reduces this risk, blindness in one or both eyes could occur. Fortunately this complication is extremely rare. Temporary or prolonged double vision has been reported, but is also very rare.
- **Other Risks**  
You may note some numbness or discomfort in the front and upper teeth temporarily. Swelling, bruising, “black eye”, and lip numbness may also occur, but usually resolve in one to two weeks. Air may collect under the skin around the eye postoperatively. This rapidly resolves. Symptoms may return or in some cases worsen such as sinus pain or discomfort, increased nasal obstruction or discharge. Smell may be decreased or absent after surgery, but this is rare. Scarring may occur in the nose, but usually does not cause a problem. Occasionally, the scarring may need to be removed.
- **Alternatives to Surgery**  
Medical therapy if successful, is the treatment of choice. If unsuccessful, you may choose to tolerate the symptoms rather than have surgery. Besides endoscopic surgery, balloon sinuplasty or conventional sinus surgery is available. This should be discussed with your surgeon. Depending on the extent of the disease, treatment without surgery may lead to orbital complication (loss of vision), brain abscess or infection, loss of smell, and intracranial cysts or masses.