

Functional Endoscopic Sinus Surgery

GUIDELINES FOR ENDOSCOPIC SINUS SURGERY

In general, endoscopic sinus surgery is intended for people with chronic sinus problems who do not respond to medical therapy. Symptoms of sinus disease may include facial pain or feeling of fullness, difficulty breathing through the nose, a persistent bad smell in the nose, post nasal discharge, and occasionally headaches. Occasionally sinus problems may cause hoarseness or cough, or a variety of other symptoms, but all of these problems can also occur in the absence of sinus disease. The diagnosis of a sinus problem must therefore be based on an assessment by your doctor.

In the majority of people with sinus problems surgery is not indicated or required. Most people with sinus complaints can be successfully treated medically. This treatment may consist of antibiotics or other medications, treatment for allergies, or environmental control (such as stopping smoking). The type of medical treatment chosen is based on your doctor's assessment of the cause.

Unless your doctor finds a problem which clearly requires surgical intervention, one or more forms of medical treatment are used as the primary therapy for most sinus problems. In some people however, surgery is required. This may be because of an infection or inflamed area which does not clear with antibiotics, or which keeps returning when the antibiotics are stopped, or for other reasons which you should discuss with your physician.

THE EVALUATION AND FOLLOW UP TREATMENT IN ENDOSCOPIC SINUS SURGERY

At the initial consultation, it is helpful if you bring a letter from your physician with you, describing your past history and treatment up to this time. Previous x-rays are also often helpful if these are available. Special x-ray studies are frequently required in order to accurately assess the areas involved and suitability for endoscopic sinus surgery. In some cases these may be prearranged at the time of the initial visit based upon information supplied by you, or your physician, in advance. They may also be performed at a later time. You may also discuss, with your own doctor, having these performed locally prior to your visit (either frontal polytomograms, or high resolution coronal or reconstructed coronal CT scan), and bring the x-ray films with you.

If, after the consultation, it is felt that you would benefit from endoscopic surgery, a date will be arranged for the procedure. In many cases, the surgery can be performed on an outpatient basis under local anesthesia, however, it is important to be prepared to be admitted to the hospital should this prove necessary at the time of surgery. Following the surgery, if no nasal packing is required, a follow up visit at approximately one day and four days following surgery is necessary to clean crusts from the surgical site. A further follow up visit(s) is then scheduled in two to six weeks. Occasionally further minor endoscopic procedures or rarely a more radical surgical

procedure could be required, if a resolution of symptoms does not occur.

FUNCTIONAL ENDOSCOPIC SINUS SURGERY

Functional endoscopic sinus surgery differs somewhat from the conventional surgical approach to this problem in that it stresses a careful diagnostic workup to try to identify the underlying cause of the problem, frequently in the anterior ethmoids area, the area of the openings of the maxillary and frontal sinus. Sometimes the endoscopic examination, or the detailed x-ray studies, may reveal a problem which could not be identified by other means

The principle is that if the underlying cause of disease is identified and corrected, secondary disease in the maxillary and frontal sinuses will often improve spontaneously.

The advantage of the procedure is that in general, the surgery is less extensive, there is often less removal of normal tissues, and the surgery can frequently be performed on an outpatient basis without the necessity for nasal packing. In general, the techniques are similar to those utilized for an intranasal ethmoidectomy, however, better visualization is obtained during surgery by the use of endoscopes. The endoscopes also allow problems in other sinuses to be viewed directly and, in many cases, for diseased tissue to be removed.

RISKS OF SURGERY

Bleeding

Bleeding is a potential risk in most forms of sinus surgery. Although the risk of bleeding appears to be reduced with this technique, on occasion significant bleeding may require termination of the procedure and the placement of nasal packing. Bleeding following surgery may require the placement of packing and hospital admission. Blood transfusion is rarely required.

Failure to cure the problem or recurrent disease

As in all sinus surgery, it is possible that the disease may not be cured by the operation or that recurrent disease may occur at a later time. In this case subsequent medical or surgical therapy might be required.

Post operative discharge

Some bloody post nasal discharge may occur for approximately two weeks after this procedure. This is normal and slowly improves. You should not blow your nose for approximately 5 days following the procedure.

Spinal fluid leak

All operations on the ethmoid sinus carry a rare chance of creating a leak of spinal fluid (the fluid that surrounds the brain). Should this rare complication occur, it creates a potential pathway for infection which could result in meningitis. If a spinal fluid leak should occur, it would extend your hospitalization and might require further surgery for its closure, should it not close spontaneously. In general, the risk of spinal fluid leak is considered somewhat higher when ethmoid surgery is performed through the nose rather than by an external incision. However, the use of endoscopes allows improved visualization and therefore should potentially reduce the risk of this complication.

Loss of vision

Occasional reports of visual loss have been reported after sinus surgery. Although the loss of vision would usually only involve one side, the potential for recovery is not good. Fortunately, such a complication is extremely rare. Temporary or prolonged double vision has also been reported after sinus surgery.

Risks of anesthesia

One advantage of the endoscopic technique is that it can usually be performed under local anesthesia. Adverse reactions to local anesthesia are very uncommon. If general anesthesia is required, you would be subject to the usual risks for general anesthesia. Adverse reactions to general anesthesia do occasionally occur, and although unusual, could be serious. You may discuss this further with your anesthesiologist, if you so desire.

Blood transfusion

Blood transfusion is rarely required, but if necessary carries a risk of adverse reaction or the transfer of infection.

Other risks

Tearing of the eye can occasionally result from sinus surgery or inflammation and may be persistent. Numbness or discomfort in the upper front teeth may occur for a period of time after some procedures. Occasionally some swelling, bruising or temporary numbness of the lip, or swelling or bruising of the area around the eye may occur. Blowing your nose in the early postoperative period might result in a temporary collection of air under the skin and facial swelling for a period of time. Although the purpose of the surgery is to reduce or eliminate the symptoms of chronic sinus disease, should it not be successful, the symptoms could be unchanged or become worsened. These symptoms include further sinus pain or discomfort, increased nasal obstruction or a prolonged increase in post nasal discharge. Decreased sense of smell is also a possibility.

ALTERNATIVES TO SURGERY

In most cases, medical therapy is the first form of treatment for sinus disease, and in most cases it is possible to continue to treat the disease medically. Alternative forms of surgery are also available, and you should discuss these further with your surgeon if you so wish.