

Endoscopic Sinus Surgery

OVERVIEW

The sinuses are air-filled holes in the skull. They are connected to the nose and can get infected leading to drainage, pain, etc. This may be caused by allergies, polyps, abnormal shape or swelling inside the nose.

Medical therapies, such as antibiotics, steroids, nasal sprays and decongestants, will often cure bouts of sinusitis. Sinus surgery is advocated in those patients who fail to improve after medicines.

There are circumstances when immediate sinus surgery is warranted. Tumors of the sinuses, whether benign or malignant, often require surgical removal. Surgery may be the only option for some patients whose sinus condition aggravates other medical problems such as asthma. Cancer or immunocompromised patients may require drainage for culture or for treatment of a fungal infection. In the past, surgeries requiring an incision under the lip (Caldwell-Luc) or face (external ethmoidectomy) were used to drain sinus cavities. Most procedures are now performed using endoscopic technology (small cameras through the nose), eliminating the need for external incisions.

Endoscopic Sinus Surgery

Small rods of light with a camera (endoscope) are used to operate through your nostrils into the sinuses. This does not involve any cuts on your face, but may be combined with other external approaches, which may involve cuts. This surgery is usually done under general anesthesia for your comfort. A sinus CT scan will serve as a road map for your surgeon.

Endoscopic sinus surgery has ushered in a new philosophy allowing the surgeon to target the ostiomeatal complex (OMC), an area in the anterior ethmoid sinus region. Obstruction of the OMC can lead to subsequent infection of the maxillary, frontal and sphenoid sinuses.

Accordingly, endoscopic sinus surgery removes thickened and diseased tissue blocking the OMC. Most of the healthy tissue in the sinuses is undisturbed allowing for faster and better overall recovery. Endoscopic surgery can also be utilized for removal of polyps, nasal masses and sometimes straightening the septum to improve nasal airflow.

WHAT ARE THE COMPLICATIONS AND RISKS 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. 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. Occasionally significant bleeding may occur requiring termination of the procedure and nasal packing. This usually requires hospitalization for observation. Blood transfusions are rare as is



the need for subsequent surgery to control bleeding. However, certain precautions are necessary, such as the avoidance of all medication containing aspirin or ibuprofen (NSAIDS) for one to two weeks prior to surgery.

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, risk of persistent or recurrent disease is a possibility which could require subsequent surgery.

Postoperative Discharge

Post surgical blood-tinged drainage or clots may occur up to one to two weeks after surgery. This is expected and will clear over time . Blowing of the nose should not be attempted for one week post surgery.

Blood Transfusion

Blood replacement is rarely needed. If it is, certain risks are known. Infection may occur from infected blood; fortunately, this is 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 post operatively. 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 for sinus disease. If medical therapy is unsuccessful, the patient may choose to live with their sx's rather than undergo surgery. Besides endoscopic surgery, conventional sinus surgery is also available. This should be discussed with your surgeon. Depending on the extent of disease, progression of sinus disease may lead to orbital complication (loss of vision), brain abscess or infection, loss of smell, and intracranial cysts or masses.

Spinal Fluid Leak

Since the area just above the nose is the brain, there is a risk of entering the thin wall separating nose from brain during surgery. A thin clear fluid, which surrounds the brain, can then leak into the nose. This fluid can become infected and a meningitis could occur. However, this 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. Better visualization often helps to reduce this complication even further. Any surgery involving removal of polyps or extensive sinus disease runs this risk.

Loss of Vision

Any extensive sinus surgery in the nose may result in loss of vision. While endoscopic guidance reduces this risk, blindness in one or both eyes may occur. Fortunately this complication is very rare. Temporary or prolonged double vision has been reported but is also rare.

INSTRUCTIONS FOLLOWING SINUS SURGERY

The procedure generally lasts from one to three hours. You can expect to go home after the procedure unless other medical conditions complicate recovery.

Your nose may or may not have packing in place after the procedure. This packing is often removed 3-5 days after surgery, at your next scheduled office visit. Full recovery may take several weeks. Dry blood, mucus and crusting in the nose will occur, and may result in symptoms like a severe cold or sinus infection. It is important to begin nasal irrigations with distilled water starting the day after surgery. You can use either Sinus Rinse by Neil Med or a baby bulb syringe. Fill this syringe with *distilled water*, and gently flush out each side of your nose *twice a day* starting the day after surgery. This will help clean the clots from your nose, and prevent scarring after surgery. Proper postoperative care is essential to prevent scar formation and allow normal healing. This requires regular visits back to your surgeon for endoscopic cleaning. Generally speaking, your first visit back is the most difficult, and you may need someone with you to drive home after the visit.

THINGS TO DO

- Take pain medicines as needed for pain
- Take antibiotics, as prescribed:
- Call our office at (909) 466-8400 to schedule your next postoperative appointment in a week.
- Start your saline nasal spray the day after surgery at least 4 times a day
- Sneeze or cough with your mouth open
- Eat a regular diet
- Take your pain medicines before your first post-operative visit

THINGS NOT TO DO

- Any heavy activity including lifting children and exercise for 1 week
- Blow your nose or pick at your nose
- Take aspirin or aspirin containing medicines, Advil, Motrin or any other NSAIDS - Fly without your doctor's clearance for 7-10 days after surgery

Call your doctor or go to the nearest emergency room immediately if any of the following occur:

1. Change in vision
2. Increased swelling around the eyes
3. Neck stiffness or deep head pain
4. Continued nausea or vomiting
5. Bright red blood that lasts more than ten minutes or causes choking
6. Fever over 101 degrees