

TESTfacts

An Educational Health Series From National Jewish Health®



Endoscopic Sinus Surgery

What is chronic sinusitis?

Sinusitis is an inflammation (swelling) of the mucous membranes that line the sinus cavities. This can interfere with normal sinus drainage and cause increased mucus production.

If you have chronic sinusitis, which is often not associated with an infection, you may experience recurrent or continuing symptoms that do not respond to treatment. These symptoms are more subtle and generally do not include fever. The symptoms of chronic sinusitis may vary greatly and last for months or years if untreated.

What is endoscopic sinus surgery?

Your doctor has recommended endoscopic sinus surgery as part of your treatment. Functional endoscopic sinus surgery (FESS) has become the accepted standard approach and technique when surgical treatment of chronic sinusitis is indicated.

What is functional endoscopic sinus surgery (FESS)?

FESS is a minimally-invasive approach to the sinus cavities using endoscopes (telescopes) to view the important structures of the nose and sinuses. The endoscope is inserted through the nose. The view with the endoscope allows for better identification of the underlying disease, which in turn allows the surgeon to be precise, careful, and thorough with minimal damage to normal surrounding tissue. All sinuses can be viewed directly during FESS and obstructing tissue or disease can be removed as indicated. FESS allows for less tissue removal, more rapid tissue healing, and shorter recovery periods. The surgery is often performed on an outpatient basis.

When is FESS indicated?

Most commonly FESS is indicated for people with chronic sinus problems who do not respond to medical treatments.

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The diagnosis of chronic sinusitis is based on symptoms, nasal examination (i.e., nasal endoscopy), sinus CT findings, and response to previous treatments. The majority of people with sinusitis do not require surgery. However, in some people symptoms persist despite prolonged medical treatments and FESS is indicated to help control the problem. With proper patient selection and evaluation, research has proven FESS to be 70-90% successful in improving symptoms of sinusitis and related nasal and sinus problems. FESS is not a "cure" for sinusitis, but is helpful in managing symptoms of the chronic nature of the disease. The most common indications for FESS include chronic infection, nasal obstruction or blockage and nasal polyps.

How do you get ready for the surgery?

Your surgery will take place at Saint Joseph Hospital. You will receive information from National Jewish Health and Saint Joseph Hospital on preparing for surgery. **Follow these instructions closely or your surgery may need to be cancelled.**

- Your doctor may prescribe medicine to help improve the condition of your sinuses before your surgery. These medicines may include antibiotics or oral steroids. If your doctor prescribes medicine before surgery, make sure to start them on the correct day and take them as ordered.
- Avoid taking the following medicine for at least 10 days prior to surgery:
 - Aspirin
 - Motrin®, Advil® (ibuprofen)
 - Aleve® (naproxen)
 - Other non-steroidal anti-inflammatory medicine (NSAIDS)
 - Vitamin E (multivitamin is fine)
 - Gingko biloba, garlic, ginseng
 - These medicines can thin the blood and create excessive bleeding during and after surgery. Tylenol is safe and can be taken up to the day of surgery.
- Avoid St. John's wort for 14 days prior to surgery. This may interact with anesthesia medicines.
- If you smoke, it is critical that you try to give up smoking for at least 4 weeks prior to surgery, and at least 4 weeks after surgery. Smoking during this critical time can seriously interfere with the success of the surgery. It may result in excessive scarring and failure of the surgery. Ask your health care provider about resources to help you give up smoking.
- Inform your primary care doctor that you are planning to have sinus surgery. Your doctor can help make sure that you are medically cleared for surgery. Most of the pre-operative testing will be done at National Jewish Health. We may need you to request old records from your primary care doctor.
- You will also receive information on preparing the day before surgery. Make sure to read this carefully.

What can you expect during the surgery?

- In most cases you will receive general anesthesia for your surgery. With general anesthesia, you will be asleep for the entire surgery.
- We often do not use nasal packing during sinus surgery to decrease discomfort. If bleeding occurs that is difficult to control, packing will be placed. It would then be removed within 1 to 3 days after the surgery. Newer packing materials that the body

absorbs may also be used in select cases. This means the packing does not need to be removed.

- When your surgery is over, you will spend one to two hours in the recovery area. Most people feel well enough to go home the day of surgery. Some people may require a one night stay in the hospital. This may be true if extra recovery time is needed or if you have other medical problems that require special medical attention.

What can you expect after the surgery?

- Follow-up visits often take place at 1 week, 3 weeks and 6 weeks after surgery. This may be adjusted slightly. After these visits, we often recommend you return every 3 months until your condition is stable and your symptoms improve.
- You will receive prescriptions for pain medicine right after surgery. You may also receive medicine for oral steroids (decrease swelling) and antibiotics.
- Do not blow your nose for the first week following surgery.
- You will often start nasal saline washes of the nose twice a day starting 24 to 48 hours after surgery.
- Avoid exercise and limit any exertion for at least 2 week following surgery. This includes no bending, lifting (more than 10 pounds) or straining. Your surgeon will be able to advise you when it is safe to begin exercising again.
- Plan on taking about 1 week off from work to recover from surgery.
- Do **not** fly anywhere for 2 weeks, SCUBA dive for 4 weeks or swim for 2 weeks.

What are the risks of FESS?

As with any surgical procedure, FESS has associated risks. Although the chance of a complication occurring is small, it is important that you understand the potential complications and ask your surgeon about any concerns you may have.

Bleeding: Most sinus surgery involves some degree of blood loss, which is generally well tolerated by the patient. If there is significant bleeding the may need to stop the surgery. Although most patients do not require nasal packing, a few patients will require a small nasal pack to be removed 1-3 days after surgery. Minor dripping of blood for 1 to 2 days following surgery is normal. Blood transfusion is very rarely necessary and is given only if the patient's health would otherwise be compromised.

Recurrence of disease: Although FESS provides significant symptomatic benefits for the vast majority of patients, surgery is not a cure for most forms of sinusitis. Therefore, you can expect to continue with your sinus medications even after successful sinus surgery, although in general your requirements for such medications should be lessened. In some instances, additional "touch-up" surgery may be necessary to optimize your surgical outcome. This may be necessary in 5-10% of cases.

Spinal fluid leak: The sinuses are located near the brain. This means there is a rare chance of creating a leak of spinal fluid (the fluid surrounding the brain) or injuring the brain. Also called a cerebrospinal fluid (CSF) leak, the reported incidence of this is less than 1% of cases. Should the rare complication of a CSF leak occur, it may create a potential pathway for infection, which could result in meningitis. If a CSF leak were to occur, it might require surgical closure and extend your hospitalization.

Visual problems: There have been isolated reports of visual loss after sinus surgery. The potential for recovery in such cases is not good. In addition, orbital (eye) injury resulting in double vision, blurring vision, or excessive tearing from the eye are additional potential complications. Fortunately, such a complication is rare. The reported incidence is less than 1% of cases.

Other risks: Other uncommon risks of surgery include alteration of sense of smell or taste; persistence and/or worsening of sinus symptoms and facial pain and swelling or bruising of the area around the eye.

Septoplasty at the same time: Some patients have a deviation of the nasal septum. This is corrected at the time of surgery through a short procedure called septoplasty. If you require septoplasty, there are additional risks. The main risks are:

- Bleeding or infection in the area of the septum
- Numbness of the front teeth
- Development of a hole through the septum (septal perforation)
- Recurrence of septal deviation

There is a very small risk if these complications happen it could change the appearance of the nose.

Questions to ask my health care team

The doctor and nurse will review what to expect before, during and after the surgery. The doctor will also explain the risks and benefits of this surgery in more detail. If you have questions please call 303-398-1355.