

Endoscopic sinus surgery

This leaflet explains more about endoscopic sinus surgery (ESS), including the benefits, risks and any alternatives and what you can expect when you come to hospital.

If you have any further questions, please speak to a doctor or nurse caring for you.

What are the sinuses?

The sinuses are air-filled cavities within the bones of the face. They are connected to the inside of the nose through small openings called ostia. There are four groups of sinuses:

- Frontal sinuses (in the forehead)
- Ethmoid sinuses (between the eyes)
- Maxillary sinuses (in the cheekbone area)
- Sphenoid sinuses (in the middle of the head, behind the eyes)

The sinuses naturally produce mucus, which drains into the nasal cavity. Inflammation can cause this process not to function properly, leading to blockage of the sinus drainage pathways.

Chronic rhinosinusitis (CRS) is a long-term disease of the lining of the nose and sinuses, where the lining of the nose and sinuses is permanently inflamed. This typically leads to nasal blockage and excessive nasal discharge. In addition, some patients may suffer a decreased sense of smell and/or facial pain. In most cases, we do not know what causes CRS, but it is commonly associated with asthma.

Some patients with CRS develop nasal polyps. Polyps are soft swellings like grapes inside the nose, which lead to severe nasal blockage if they are large. Some patients have a different form of the disease that does not lead to polyp formation.

Almost all patients with CRS require long-term treatment with nasal medications, such as nasal steroid drops or sprays and saline (salt water) irrigation, regardless of whether they have surgery.

You will need to ensure that your GP is aware of your need for long-term prescriptions for these medications. Some patients with CRS find that they never require surgery, because their symptoms are milder and respond to medical treatment alone.

What is endoscopic sinus surgery?

Endoscopic sinus surgery (ESS) is most commonly performed to treat CRS, in patients where medical treatment alone is not adequately controlling the symptoms. It can also be performed for other nasal conditions. ESS is also known as functional endoscopic sinus surgery (FESS) – this is the same operation.

In the outpatient clinic, the ENT surgeon will have examined your nose with a small endoscope and arranged for a CT scan of your sinuses. Following your outpatient appointment, we will ask you to attend the pre-assessment clinic. This is to ensure that you are fit for your surgery.

ESS works by removing nasal polyps (if you have them), and by opening the sinuses more widely into the nasal cavity. This enables your long-term nasal medications to reach the lining of your nose and sinuses more effectively, treating the inflammation that leads to symptoms of CRS.

It is important to note that ESS is not a cure for your sinus disease – long-term medication will still be necessary after the operation. This is to prevent or slow down the recurrence of symptoms and the re-growth of polyps. The majority of patients with CRS may require more than one ESS operation during their lifetime, particularly if they do not maintain regular use of their nasal medications.

What are the risks?

You must be aware of the potential risks of surgery before you consent to this treatment. The vast majority of cases of ESS are straightforward, with no significant problems. The complication rates quoted below are based on large studies. If you are particularly concerned, feel free to ask your surgeon about their own experience of these complications, and any particular risks that may be present in your case.

- A small amount of bleeding is normal after ESS, but a more severe nosebleed may occasionally occur. This only occurs in 1 in 100 patients.
- A few patients may develop an infection of the sinuses after their operation, and may require antibiotic treatment.
- The sinuses are very close to the wall of the eye cavity (orbit). Rarely, the orbit can be entered during sinus surgery. Even if this occurs, it usually has no serious side effects. Very rarely, injury to the contents of the orbit or bleeding around the eye may occur, potentially leading to long-term problems with vision. The rate of significant eye complications is extremely low: around 1 in 1,000 operations.
- The sinuses are very close to the bone at the base of the brain. Very rarely, this bone can become cracked during sinus surgery, leading to a leak of cerebrospinal fluid (CSF) from around the brain. A CSF leak would usually be repaired during the same operation. Occasionally, a CSF leak may be recognised later, and may require a second operation if it does not resolve on its own. The rate of CSF leak in routine ESS is very low: Around 1 in 500 operations.
- There is a very small chance of ESS affecting your sense of smell and taste.

Are there any alternatives?

The main alternative to endoscopic sinus surgery is to continue with your medical treatment. Sometimes your medical treatment can be changed, or short courses of antibiotics or oral steroids used to improve your symptoms. The decision on whether to have surgery should be made based on how severely your symptoms affect you personally.

How can I prepare for endoscopic sinus surgery?

You will be given an appointment date to attend pre-assessment clinic, either on the day of your outpatient appointment or following a telephone health questionnaire. This is to ensure that you are fit enough to have the anaesthetic and the surgery.

The nurse will check your general health and may have to carry out further tests. The nurse will also give you verbal and written fasting instructions and inform you the medication you should or should not take prior to your procedure.

Asking for your consent

It is important that you feel involved in decisions about your care. For some treatments, you will be asked to sign a consent form to say that you agree to have the treatment and understand what it involves. You can withdraw your consent at any time, even if you have said “yes” previously. If you would like more details about our consent process, please ask for a copy of our policy.

What happens during endoscopic sinus surgery?

The operation is almost always performed under general anaesthetic (you will be asleep). The operation is performed via the nostrils, using an endoscopic camera and specially-designed instruments. There will be no cuts or bruises on your face.

The operation can take between 30 minutes and 2 hours, depending on the extent of the disease that must be treated. Occasionally, the surgeon may need to straighten the partition wall inside the nose (the nasal septum) to improve access to your sinuses (see leaflet “Septoplasty”).

What happens after endoscopic sinus surgery?

If your operation is straightforward and you meet our day case criteria for your general state of health and home circumstances, you will be able to go home on the day of your operation (usually around 4 hours after you return from theatre).

We will tell you before you come into hospital whether you can go home on the same day as your operation, or whether you need to stay in overnight.

What do I need to do after I go home?

- We recommend using saline (salty water) nasal irrigations regularly after surgery, to help to wash away crusting or blood clots whilst your sinuses are healing. Your surgeon can advise you which products can be purchased.
- Avoid hot food and drinks as they can increase the chance of bleeding.
- Let baths and showers cool down as these along with steam can make you bleed.
- Do not blow your nose for the first 48 hours – after this you can blow your nose gently one side at the time.
- Do not bend over or lift anything heavy.
- If you need to sneeze do so with your mouth open to prevent your nose from starting to bleed.

- You may have dissolvable packs (sponge dressings) in the nose which will dissolve in few days.
- Avoid congested, smoky areas and being around people with coughs, colds and flu.
- You should receive a letter for your follow-up appointment within 5 days after your surgery.
- No flying for two weeks after surgery.

Can I exercise normally after endoscopic sinus surgery?

- Exercise is a good way of getting back to normal after an operation. However, in the first few weeks after a nasal operation, too much exertion can cause bleeding.
- We recommend limiting exercise to gentle walking only in the first 1-2 weeks.
- In the third and fourth weeks after surgery, you can resume gentle cardiovascular exercise such as running, walking, cycling or using elliptical/cross-training equipment. However, you should **avoid** lifting weights, doing yoga or Pilates, heavy cardiovascular exercise, or swimming during this time.
- After four weeks, you can resume any form of exercise.

What is/is not normal after my operation?

NORMAL - You may experience this at home

- **Your throat** will be slightly sore for a few days after the operation.
- **You will have some blood-stained discharge** from your nose for the first two weeks - this is normal and will resolve.
- **You will have crust and dark blood-stained crust in the nose**, DO NOT try to remove it yourself, use nasal irrigations as advised.
- **Your nose will be uncomfortable and blocked**, like having a heavy cold, for 10 to 14 days after the operation. You may get a dry mouth; take sips of water regularly to help with this.
- **You may have some aching in your face, or some headaches**. This usually improves with paracetamol – ensure you are well-hydrated and avoid excessive caffeine.

CAUTION - Please go to your GP or call the ward for advice

- **Increase in pain** - if, despite taking all your medication regularly you are still in a lot of pain, you need to ring your GP practice and arrange an appointment. The hospital will no longer supply medication once you have been discharged.

EMERGENCY

- **If you have severe pain or a change in your vision** with or without fever, **please go to A&E**.
- **If you have heavy bleeding**, pinch the lower part of your nose for 10 minutes whilst sitting upright and tilt your head forward. It will also help to apply ice to the back of your neck and forehead. Sucking ice also helps. **If the bleeding does not stop within 20 minutes, please call an ambulance.**

Will I have a follow-up appointment?

Patients are usually seen again in clinic approximately six weeks after their operation, often at the same clinic they attended before the operation.

Contact us

If you have more urgent concerns or feel unwell, see your GP, an urgent care service, or your nearest Emergency Department.