

Functional Endoscopic Sinus Surgery (“FESS”)

What are “Sinuses”

Sinuses are cavities within the forehead and facial bones (around the eyes) Normally, they open into the nasal passages via small drainage pathways called “ostia”

Why is sinus surgery necessary?

In cases in which antibiotics, nasal drops, sprays and decongestants have failed to clear the problem, it is likely that the sinuses are physically obstructed and blocked. In this event, it may be advisable to undergo surgery to unblock these passages, in the hope of restoring normal function by improving mucus drainage, (i.e. “functional” endoscopic sinus surgery or “FESS”).

Why are endoscopes used?

These fiberoptic instruments allow us to carry out much more precise surgery which addresses the individual problem, particular to that patient. We know which sinuses are diseased by looking at the CT scan, and so we can operate on those that are diseased and leave alone those that are not.

What is the outlook after the surgery? Will I be completely cured? Will it ever come back again?

FESS is highly successful at improving the symptoms of sufferers of chronic sinusitis, but it may not offer a permanent, complete cure because the mucus drainage mechanism has already been badly damaged by the infection. Artificially-created pathways never work as well as natural ones, but are better than none at all. For this reason, even after successful surgery, the patient will be more prone to bouts of sinus trouble than the average person, but usually this will still be better than if they had never had their sinus operation. Most often, even if sinusitis recurs in somebody who has had FESS, it can be brought under control medically (rather than surgically) using various antibiotics, sprays/drops, decongestants or anti-inflammatory steroids. Thus overall, most patients who undergo FESS although not completely cured, are a lot better.

Why are CT Scans necessary?

The surgeon usually requires a CT Scan to define where the surgery is needed, i.e. which sinuses are diseased and which are not. Also, anatomic relationships on the scan are important to help the surgeon avoid damaging surrounding structures – in other words, the scan acts like the surgeon’s roadmap.

How long will the operation take?

About 1 to 2 hours usually. This depends on the extent of the disease that must be treated.

Will I have black eyes after the operation?

No. This is very rare indeed, although it can occur, after FESS.

Is it a big operation?

This also depends on the extent of the disease to start off with. If, as in many cases, the disease is extensive, the surgery is also quite extensive – even though this may not be apparent from the outside (no facial incisions or bruising), but internally a lot of work has been done!

Are there any complications in this type of surgery?

Complications may occur in every single operation there is. This is no exception. The main risk of this operation itself is bleeding or haemorrhage. A small amount of “spotting” of blood on your hanky after the operation is normal but a severe nosebleed may occur up to 10 days post-operatively. This occurs in only 1-2% of cases but may be sufficiently severe to warrant re-admission to hospital, a drip and perhaps even a transfusion or a return to the operating theatre to arrest the bleeding.

Other structures which are in the vicinity of the surgery are theoretically at risk: namely the orbits (eye-sockets) and the meninges, (membranous cover around the brain). Damage to these structures is extremely rare, but must be mentioned. This is one reason why a CT scan is required : so that the surgeon is forewarned as to how near they are to the sinuses during the operation. Dryness, crusting and further bouts of sinusitis, (as mentioned above) may occur. Adhesions, (lining inside nose sticking together) can occur – especially if the nose is not adequately

cleansed post-op by irrigating. Often the sense of smell improves after surgery, but this cannot be guaranteed. There is a very small chance it may be worse after surgery, although this would probably be the end-result of the disease itself, if untreated. If a septoplasty is done for access, (see below) there is a risk of septal perforation (a hole in the septum). This is permanent. It may not cause any trouble at all and be completely asymptomatic, but it can cause crusting and bleeding.

You should not be alarmed by the possibility of these complications. They are extremely rare, but we have to mention them so that you can give your *informed consent* to the surgery.

How is the surgery actually done?

A decongestant is applied inside the nose to reduce bleeding and the endoscope is inserted. The image appears on a TV monitor in front of the surgeon and instruments can be seen on the TV when they are inserted in the nose. The surgeon's eyes are fixed on the TV monitor while he operates inside the nose. The diseased sinuses are identified and their bony walls are opened up step-by-step using special forceps. The bony partitions are not very thick and this is easily done. Sometimes, a special device called a micro-debrider is used to do this. The natural passageways and paths of mucus drainage are enlarged to prevent blockage and diseased sinus lining ("mucosa") is removed, although healthy mucosa is always left behind to speed up healing. Sometimes, the sinuses may be flushed out to wash away pus and debris etc. At the end of the operation, instead of having a honeycomb-like labyrinth of sinuses (underlying the nasal bridge area), there is instead a single cavity that is widely opened into the nasal passageways so that it can drain freely. This does not "weaken" the nose at all. When the operation is over, the surgeon often places some packing in the nose to arrest any continuous bleeding. This may be a dissolving gel-like substance or it may be a gel-covered plug which is removed later in the day, or the next day. Often, additional procedures may be required, such as septoplasty, to straighten the midline nasal septal cartilage to allow access to the diseased sinuses, or sometimes turbinate reduction, to reduce nasal blockage if present. This is all done at the same time.

At Home

- Avoid all moderate and heavy physical activity, including sport for ten days after the operation.
- Avoid bending down to pick things up, especially heavy weights.
- Avoid very hot baths or showers as this increases the risk of bleeding.
- The nose must be irrigated frequently (at least 3 times a day) with saline to clear away scabs and crusting which occurs after the operation. You may start this, (gently at first) the day after you go home. The NEILMED nasal douche system is ideal for this purpose. It is available from Chemists without prescription. Sterimar douche is an alternative. Before irrigating thoroughly, decongestant drops may be used to help open the nose a little, (eg Vicks) for 10 days only.
- It is normal for the nose to be quite blocked for several days (even a couple of weeks) after the surgery, while all the internal swelling settles. Thereafter, you will notice an improvement in breathing.
- Try to avoid smoky and dusty atmospheres if possible, as this may irritate the nasal lining.
- Try to avoid aspirin for at least 10 days post-operatively. It can lead to nasal haemorrhage.
- There will be a little blood when you blow your nose. It is quite okay to do so, but gently. You *should* blow the nose after irrigating, as mentioned above. The bleeding gets less and less as the days go by, but there may still be a little "spotting" on your handkerchief even up to a few weeks after the surgery. Don't worry, this is normal.
- Normally, you will be seen for a check-up 3-4 weeks after the operation.
- Travel by air is not recommended for 10 days post-op.

Dealing with Problems

1) Serious nasal haemorrhage

May occur up to 10 days post-operatively. A little fresh blood in your hanky is no cause for concern but if it persists (eg. dripping actively), you should :

- Sit down in a chair and relax. (Do not lie down)
- Pinch the soft part of the nose firmly for 15 minutes.
- Spit out any blood into a bowl placed in your lap.
- Place an ice-pack (Or a bag of frozen peas etc) Over your forehead. Try sucking an ice-cube. This reduces nasal blood flow.
- If these measures do not stop the bleeding, and it continues unabated without any sign of slowing down after 30-45 minutes, you should attend your closest Accident and Emergency (Casualty) Department, (e.g. [Northwick Park Hospital](#)) as you may require admission. Inform them that you have had Endoscopic Sinus Surgery. If you simply need advice, you can call the Ward at Clementine Churchill Hospital, on which you were admitted, (0208-872-3872). They can inform Mr.Marais if it is necessary.

2) Pain

FESS is only moderately painful, but you will have painkillers to take home. Ordinary paracetamol is an alternative.

