

# Functional Endoscopic Sinus Surgery (FESS)

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## Understanding FESS

Functional Endoscopic Sinus Surgery (FESS) is a surgical procedure performed to address various sinus-related conditions. The surgeon uses a small endoscope to access and open the sinuses, allowing for improved drainage and ventilation. FESS is commonly used for conditions such as recurrent acute sinusitis, chronic sinusitis, and nasal obstruction. It can also be used to remove tumours.

The sinuses are air-filled spaces within the head which develop until early adulthood. Their role is unclear but they may be useful to help voice resonance, buoyancy or as a shock absorber in facial trauma. When they become obstructed, they can fill with mucus which then becomes a Petri dish for bacteria to grow in. Upper molars may protrude into the sinuses and cause infections. In rare cases, they can also become colonized with fungus. Some patients can develop chronic inflammation which may lead to the formation of swollen tissue called polyps, which are a sign of more difficult-to-treat inflammation and can block the nose. In some people exposed to pressure changes, the sinuses can cause pain and this can be an issue for frequent fliers or divers. Tumours can also develop in the sinuses. In all of these cases, opening up the sinuses and clearing the nose with surgery can be useful.

## Procedure

The operation is performed under general anaesthesia. It is done through the nose with no external cuts. An endoscope (camera) and instruments are used to remove the bony walls of the sinuses, clear away inflamed tissue and pus, and control bleeding vessels. FESS is often combined with other nasal operations like a septoplasty and turbinoplasties to allow access and optimise nasal breathing. The operation usually takes one to two hours, and most patients are well enough to go home the same day, although staying one night in hospital is not unusual.

## Recovery

**Pain Management:** Pain and discomfort are common after FESS. We will prescribe pain relief for you to take during the recovery period. Fortunately, it's usually not a very painful procedure as there are no muscles which are disturbed.

**Nasal Rinsing:** Regular saline rinsing, at least 4 times a day for the first 2 weeks, is essential for keeping the nasal passages clean and promoting healing. Your nose will be full of dissolvable nasal packing (made of cellulose) and old blood. Rinsing this out will help clear your nose and prevent issues with scarring. If you run out of saline solution, more can be purchased at the pharmacy, or you can make your own with 250ml boiled (then cooled) water, 1 teaspoon salt and ½ teaspoon baking soda.

**Bleeding:** A little occasional bleeding is normal post-surgery and can happen off and on for several days. However, severe or prolonged bleeding requires medical attention. If you bleed, try the first aid measures below. If these do not work, please contact us if it's during business hours or go to your nearest urgent care or emergency department.

**Follow-up Appointments:** You will usually be seen around one week postop to clear out your nose and remove any silicon nasal splints (which are often used if a septoplasty is also done). Further appointments are scheduled depending on how the healing goes.

## First Aid for Nose Bleeds

**Sit up straight:** Lean forward slightly to prevent blood from flowing down the back of your throat.

**Pinch the nostrils:** Use your thumb and index finger to pinch the soft part of your nose, just below the bridge. Maintain pressure for at least 10 minutes without releasing to allow the blood to clot.

**Apply ice:** Applying a cold pack or ice wrapped in a cloth to the bridge of the nose and back of the neck may help constrict blood vessels and reduce bleeding.

**Nasal spray:** If you have a decongestant nasal spray such as Otrivin (xylometazoline) or Sudafed (oxymetazoline), spray 4 sprays in each nostril. This helps constrict blood vessels.

## Complications and Post-operative Course

Complications can occur in any case but overall they are rare. Some of the most common complications are discussed below. We will discuss complications in more detail during your consultation, and if you have any questions please don't hesitate to get in touch.

**Bleeding:** As mentioned above, a little bleeding is normal. However, severe or prolonged bleeding requires medical attention. This can usually be controlled in the emergency department or clinic with nasal packing and medication, but occasionally it will require a return to theatre or a blood transfusion.

**Infection:** In many cases, the sinuses are infected at the time of surgery. This is best managed with regular saline rinsing. Antibiotics may also be started immediately after surgery. However, if you notice fevers, increasing pain or swelling or become very unwell, please contact us or go to your nearest urgent care or emergency department.

**Septal perforation:** Occasionally, a hole can form in the septum. This is more likely when the septum starts off very deviated or with certain underlying medical problems. In many cases, a septal perforation causes no issues but some may cause bleeding, crusting, discomfort or very rarely a change in the external nose. In these cases, repair of the perforation may be considered.