



**What is functional nose surgery?**

It is done to restore sinus & nasal function. The nose functions to warm, moisturise, clean and enable laminar airflow to our lungs. It's our only organ of smell. All these functions can be affected adversely by a crooked nose, an unsupported nasal tip, the collapse of the side or the bridge of the nose. The sinonasal blockage resulting, leads to a clogged, dirty &

dripping nose from lack of nose & sinus ventilation and stagnation of the mucus flow. Overtime this sinonasal congestion also leads to breathing difficulties, chest congestion & sleep disordered breathing.

**What is endoscopic sinus surgery ?**

It is a minimally invasive technique which is directed at restoring mucociliary clearance, drainage and aeration of the sinuses while preserving normal anatomy. The surgery is done by inserting a telescope with accompanying instruments into your nose. Routinely now when doing functional endoscopic sinus surgery (FESS) a micro-debrider is used that shaves and sucks the diseased & obstructing mucosa away. It allows for faster, less bloody and neater surgery. At other times radiofrequency bipolar forceps or turbinate microdebrider blades are used to reduce the size of nasal turbinates that may be blocking the nasal passages. You may opt for the balloon sinuplasty technique using catheters with light guide wires to cannulate the sinuses. These target the openings of the sinuses which have become narrowed with chronic inflammation & disease.

**Why did you choose to specialise in functional and aesthetic nose surgery, and endoscopic sinus surgery in your work as an ENT specialist?**

This surgery deals with nose inside & out. Being a rhinologist (sub-specialist in the nose & sinuses); I have been trained to deal with sinonasal problems holistically both medically and surgically. In the holistic surgical treatment, functional & aesthetic nose surgery is done concurrently with functional endoscopic sinus surgery. It saves time and costs for the patient. It's gratifying and greatly satisfying, to

surgeon & the patient respectively.

**What conditions might lead to a need for nose or endoscopic sinus surgery?**

The nasal sinuses are pockets that develop from the nose cavity proper into the facial bones. Sinus in Latin means a pocket to describe the front pocket of a toga the development of the sinuses in the face starts while in the uterus before birth and continues after birth till about 21 years of age. The exact function of the sinuses is debatable. Of all the animals the sinuses in humans are the most developed as it's believed that the rapid development of the human brain, made it necessary to decrease the relative weight of the front of the skull, and especially the bones of the face. It does serve to provide increased resonance to the voice, to humidify and warm the air we breathe & insulate sensitive structures like dental roots and eyes from rapid temperature fluctuations in the nasal cavity. The lining of the sinuses consists of pseudo stratified Columellar epithelium that produces mucus and have cilia. The mucus coats the cilia at the surface lining and the cilia is continuously moving the layer of mucus from within the sinus to outside it where it opens into the nasal cavity. This mucociliary conveyor belt mechanism is so efficient that normally the contents of our sinuses are sterile in health. There is no chance of finding any environmental pollutants like soot, bacteria or even viral particles within the sinuses. As soon as it comes into the sinonasal cavity it's trapped by the mucus and wafted out into the nose and the back o the throat where it's swallowed or coughed out. In a diseased unhealthy state the sinuses conveyer belt mechanism fails form damage to the cilia, change in the quality of the mucus or swelling of the sinonasal lining cells from inflammation. This causes accumulation of environmental pollutants, mucus, and pus from infections that build up pressure within the sinus, causing acute discomfort and pain. When this infection & inflammation becomes long standing from neglect in not treating it early, it leads to chronic persistent blockage and ache. Most important in the diagnosis of chronic sinusitis is the patient's history. Chronic sinusitis is defined as having 2 or more symptoms of sinusitis for more than 90 days (3 months). The primary symptoms of sinusitis are nasal blockage or congestion, nasal discharge - often felt as phlegm at the back of the throat - facial aches & pains over the sinuses, and loss of smell.

When acute sinus symptoms are not treated adequately it becomes chronic. When presented to the ENT specialist, the doctor will use an endoscope to look within the nose cavity. If this shows a swollen nasal lining, with discharge or with polyps, then sinusitis is confirmed.

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