

## Septoplasty Pre-operative Information

The nasal septum is the structure that divides the two nostrils within the nose. It consists of a core of cartilage and bone covered on both sides of mucosa. It helps to direct airflow, support and the nasal dorsum and tip. The nasal septum may develop a bend or a spur following injury to the nose or through abnormal growth.

A septoplasty is a procedure that straightens the septum. It is usually performed to improve breathing through the nose. It may also be necessary as part of keyhole sinus surgery in order to gain access to the sinuses or to gain access to a bleeding vessel that has been causing nose bleeds. If the outside of the nose is very deviated usually this is due in part to a bend in the septum which will need to be corrected. Sometimes a rhinoplasty approach is necessary to correct more extensive cosmetic and functional problems with the nasal septum.

A septoplasty is often performed in combination with a procedure called a turbinoplasty to help improve breathing. The turbinates often enlarge and grow into the space left by a deviated septum. If this is not correct breathing will not return to normal.

### **How is a bent septum diagnosed?**

Patients usually complain of difficulty breathing through one side of the nose or both. This could have been gradually worsening over many years. They could also be snoring or have sleep apnoea.

The initial assessment is by nasal endoscopy in which a thin telescope is passed into each nostril to assess the deep nasal passages. In some patients, the telescope cannot be passed because the bent septum causes too much narrowing. Occasionally a CT scan is also needed, usually when patients have sinus problems as well as breathing problems.

### **What does the surgery involve?**

A septoplasty is generally performed as day surgery. The operation takes around one hour to perform. In most cases an internal incision is made inside the nostril so that no scars are present on the outside. Very severe bends in the portion located near the nostrils may require a small external incision to correct the bend.

The mucous membrane covering the cartilage and bone is first lifted. Bent cartilage and bone are straightened. Occasionally endoscopic (keyhole) instrumentation is used. Sometimes the septum may need to be reconstructed with cartilage grafts in order to provide adequate support of the nose once the bent areas have been corrected.

A certain amount of septal cartilage must be left in place to support the nasal tip and top of the nose. This could mean that the septum remains a little off center. The aim is to make it sufficiently straight not perfectly straight.

The incision is closed at the end with dissolving stitches. Patients who have a very severe bend may require some soft splints to be left in place for 7 days during healing. Breathing is still possible through these splints as they have a hollow core.

**Septoplasty in children**

Generally a septoplasty is deferred in children until they have finished growing. This is usually around the age of 16 in girls and 17 in boys although all children are different. However, if symptoms are severe a septoplasty can be performed at any age. In these cases surgery is generally more conservative. Some children may need a slight revision operation when they are older and have finished growing.

**After your Surgery - Leaving the hospital**

- You will need to have somebody collect you from the hospital and take you home. Most patients will go home on the same day. Some patients may require an overnight stay.
- Prescriptions will be given to you during your admission prior to departure. They will usually include the following –
  1. An antibiotic
    - Always complete the full course of antibiotics. If you feel you have developed a side effect please contact Dr Roth.
    - Remember to increase your intake of “good bacteria”. Examples – Inner health plus supplements, yoghurt, Yakult
  2. A nasal decongestant (eg Drixine)
    - These help to improve your breathing during the initial period where tissues are swollen and reduce oozing of blood. They can be used every 4 hours but must be stopped after 3 days.
    - They are most effective after irrigating the nose with a sinus rinse product.
  3. Sinus rinses (nasal washing or douching). See below.
  4. Steroids.
    - Some patients may require oral anti-inflammatory steroids. Most patients will start a topical steroid spray after the first post-operative visit.

**Nasal Packing, Splints and Spacers**

- In the vast majority of cases no splints or nasal packing are required. If you require nasal packing this will be removed before you leave hospital.
- Occasionally a piece of soft silastic (thin, soft plastic) sheet will be required to support a particularly deviated nasal septum. This is gently removed at a one week follow-up visit. It is important to keep splints moist to avoid crusting building up around them and blocking your nose.
- Spacers may be required for patients having extensive endoscopic sinus surgery. These are positioned high in the sinuses to keep them open during healing and most patients are completely unaware of them. They are gently removed after one week.

**Nasal Washing (douching)**

- Sinus rinsing is an important part of your post-operative care. These should start the day after nose surgery and will help to keep the nose moist, reduce bleeding and speed up healing.
- A large volume delivery bottle (NeilMed Sinus Rinse or Flo Sinus Rise) is essential.
- Remember to keep these bottles dry after use, store with the lid off and clean them regularly. Always use boiled water (then let it cool) or sterile water.

**At home**

- You will need at least one full week to recover. Usually patients need one week off work then two further weeks off any sport, heavy physical activity or lifting. Even though you have no scars on the outside of your nose you may have had fairly extensive surgery on the inside.
  1. Avoid straining such as heavy lifting, straining on the toilet or physical exertion.
  2. Avoid things which make you flushed including hot and spicy meals and steaming hot showers
  3. GENTLE nose blowing is permitted 48 hours after surgery but it is usually better to clear the nose with nasal washing rather than with blowing as blowing your nose will increase the chance of bleeding.
  4. If you need to sneeze, open your mouth widely to release most of the force.

**Pain Management**

- Nose and sinus surgery is usually not particularly painful but this does vary from person to person and depending on the extent of surgery. It may be referred to your ears, face or teeth. Occasionally people have a sore throat from the breathing tube used during anaesthesia. Most pain settles after 2-3 days.
- Often pressure from dry blood or mucus in the nose can be uncomfortable and douching this will help to clear this and improve your pain and breathing.

Pain is best managed with regular pain medications rather than allowing pain to build up until it is severe.

- Take 2 paracetamol (Panadol) 500mg tablets four times a day.
- If there is still pain you can use one 5mg oxycodone tablet four times a day or panadeine forte two tablets four times a day. The oxycodone can be used in addition to the paracetamol whereas the panadeine forte is used instead of paracetamol. These medications both require a prescription and one or the other will be given at the time of surgery.

**Bleeding**

- Most patients have no packing inserted at the end of surgery. This significantly adds to patient comfort but does slightly increase the amount of blood loss. Most of the time this is a slow ooze that settles within a few hours after surgery.
- Patients may also notice some wet blood clots or dried blood when irrigating their nose during the first week. This is normal and it is best to gently irrigate this blood out of the nose

If brisk bleeding does occur and is continuous, you will need to first try some simple measures –

1. Lean forward and squeeze the nostrils shut. Hold for 20 minutes.
2. Do not blow your nose
3. Check if the bleeding has ceased or is slowing down.
4. If the bleeding is slowing down hold for another 20 minutes.
5. If the bleeding is not slowing down after the first 20 minutes please contact Dr Roth and head to your nearest hospital by ambulance if necessary.

**Follow-up**

- Follow-up is essential to achieve the best results in nasal surgery. The first poste-operative appointment is usually at 1 week.
- Splints or spacers may need to be removed and typically material needs to be gently suctioned away.

## Possible complications of surgery

### General surgical risks

- Heavy bleeding may require a return to theatre (uncommon).
- Infection may require treatment with antibiotics.
- Short-term nausea following general anaesthesia, and other risks related to anaesthesia.
- Allergic reaction to sutures, dressings or antiseptic solutions.
- Uncommonly, complications such as deep vein thrombosis, heart attack, stroke or pulmonary embolism.

### Specific Risks of septoplasty

- Abnormal bands of scar tissue (adhesion) may form across the nasal cavity within one or two weeks of surgery. Minor corrective surgery may be needed to remove them.
- Nasal stuffiness can still occur despite successful septoplasty because of swollen turbinates or other nasal problems such as allergies. Further treatment may be needed to address these problems.
- Perforation of the septum occurs in about one patient out of every 50. Most perforations do not cause symptoms. In some cases, symptoms may include bleeding, nasal crusting or a whistling noise when breathing through the nose. Surgical repair of a perforation is not always successful.
- A septoplasty may cause a saddle shaped dip on the front of the lower nose or drooping of the nose tip in about one patient in 500. Corrective surgery to improve the appearance of the nose tip may be needed.
- The central upper teeth may feel partially or completely numb. The nerve that supplies sensation to the upper teeth runs through the nose. Surgery can bruise or damage this nerve. Sensation usually returns within a few months.
- A blood clot may form beyond and deep to the incision site within the lining of the nose (septal haematoma). This may cause total blockage of both nostrils. Treatment includes surgery to drain the blood clot.
- A collection of pus may develop under the lining of the nose (septal abscess). This may occur as a complication of a septal haematoma. Symptoms include increasing pain, a red and tender nose, and fever. Treatment includes surgery to drain the abscess.
- Rarely, the patient's sense of smell may be distorted, decreased or lost follow septoplasty.
- A cerebrospinal fluid (CSF) leak is a rare but serious complication caused by surgical damage to the roof of the nose that allows leakage of the CSF that surrounds the brain. There have been only a few reported cases in the medical literature. Surgery is often needed to repair the leak.