Turbinate Reduction & Submucous Diathermy of turbinates (SMD)

What are Turbinates?

Turbinates are normal nasal structures that consist of bone and are covered by dense glandular mucosa (lining). There are 3 of these in each side of the nose: Superior, Middle and Inferior Turbinates, although the Inferior Turbinates (IT's) are by far the largest and are found near the floor of the nasal passages.

Since they are the largest, they have most influence on nasal air passage. Thus, if they are swollen, they can cause nasal blockage.

The function of the turbinates is to increase the nasal surface area to moisten, humidify and warm air as it passes through the nose, and to trap dust particles, germs etc in the layer of thin mucus that covers them.

Why do they need to be operated on?

If the IT's become enlarged, say due to allergy, decongestant overuse, etc. then they block the nasal passages. This may be intermittent or constant, and may affect either or both sides. A certain degree of IT enlargement intermittently on alternating sides is normal (The "nasal cycle") but most people are unaware of it. Awareness of this can become very irritating and necessitate treatment. Often it make sleeping difficult due to nasal blockage.

What is "Turbinectomy" and "SMD"

These are procedures carried out to reduce the bulk of the IT's. In Turbinate Reduction, the Turbinate is reduced in size by removing part of it. In SMD, an electric cauterisation of the turbinate is performed, and the subsequent scarring produces shrinkage of the IT. Turbinate reduction usually gives a permanently enlarged nasal passage. SMD may give a permanently enlarged airway, but the turbinate may gradually hypertrophy (enlarge) again.

What do these operations involve?

They are both very routine operations done under general anaesthetic, (ie asleep). These operations are frequently combined with other operations, to achieve an optimum result.

- a) Turbinate Reduction: Dressing / packing is left in the nose overnight. An overnight stay is necessary.
- b) SMD: Dressing / packing may not be needed (unless required for another procedure). May be able to return home same day, depending whether other procedures are done or not.

Will I have black eyes or visible scars after the operation?

No.

What are the potential complications?

- Bleeding. Most patients have a little blood when nose-blowing / cleaning, but severe haemorrhage can
 rarely occur anytime up to 10 days. Strict rest is advised for this reason. In extreme cases, this may be
 severe enough to warrant admission to hospital. Rare though they are, (<5%), emergencies such as this
 are best dealt with at Northwick Park Hospital, A&E Department. Blood transfusion and/or return to
 theatre may be needed.
- Infection. It is necessary to clean, or douche, the nose with saline or preferably, a nasal douching device, (e.g. Neilmed Sinus Rinse®) frequently after surgery, to clear away the dried mucus and blood, which can otherwise get infected, perhaps even causing sinusitis.
- Adhesions. If the nasal passages are not thoroughly cleansed, the nasal lining and side-walls may become stuck together, and heal in that state – causing significant obstruction.
- Dryness. Since much more air passes through the nose per unit time, nasal secretions may become dry and there may be a sense of dryness. This is accentuated in hot, dry climates (eg, Middle East), but is seldom a problem in Europe.
- Pain. There may be some discomfort, although these procedures are not recognised as being particularly painful.
- Anything else if you are worried about anything else, you must ask at your pre-op visit.

What are the do's & don'ts after surgery?

- 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 Sinusrinse ® system is ideal for this purpose. Sterimar douche is an alternative. These are available without prescription at chemists. Before irrigating thoroughly, decongestant drops may be used to help open the nose a little, (eg Vicks) for a few days only. In children who have SMD this may be achieved by gently instilling some saline drops instead.
- 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.
- Avoid very hot baths and showers. Take these quite cool
- 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 2-3 weeks after the operation.

Can the symptoms recur?

After SMD, nasal obstruction can recur, but if it does, it does so only after several months. Turbinate reduction, being a bigger, more definitive procedure, is seldom associated with any recurrence of the blockage. SMD is preferred in children.

Dealing with Problems

1) Serious nasal haemorrhage

May occur up to 10 day 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 Department, (e.g. Northwick Park Hospital) as you may require admission. Inform them that you have had Turbinate Reduction / SMD Surgery.

 2) Pain

Turbinate Reduction / SMD is only slight / moderately painful, but you will have painkillers to take home. Since these are quite strong, ordinary paracetamol is fine unless pain persists.

3) Infection

You may still contract a cold like anyone else. Since these are usually viral, antibiotics are not required. You may have been given antibiotics at the hospital, depending on the nature of the surgery. If you develop a temperature and increasing nasal / facial pain or a foul smell coming from the nose, you may need antibiotics, if you have not already been prescribed these. This usually only occurs when irrigation has not been adequate (see above). Your GP or A&E should be able to supply you with the necessary prescription. Alternatively, contact Mr. Marais for an urgent appointment(0208-872 3838). If antiotics make you ill (eg Stomach cramps, diarrhoea), stop the medication, but make very sure you increase the irrigations.

When can I get back to work? / sport?

It typically takes 2-3 weeks to recover. You should ensure that you have arranged this amount of leave. Just because you don't have any incisions or bruising, doesn't mean you've not had a major procedure – you deserve the time to recover properly! You should preferably also not be planning to go away on holiday for at least two weeks after your operation. Thereafter, flying is not a problem.

Active sport should not be commenced for four weeks after the surgery, and even then, slowly at first – gradually building up.

What about a "sick-note" for work?

Please ask Mr Marais' secretary or your GP for this. Two weeks off is standard.

Consent

| I have read and understand all of the above, including the potential complications, which I have read |
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| carefully and had explained to me in consultation. All of my concerns and questions have been answered |
| satisfactorily by Mr. Marais. I am willing to proceed with the following procedure: |
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| Signed |
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| Name |
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| Date/ |