

Nasal Septal Repair Reduction of Turbinates Todd A. Child M.D.

The nose performs many important functions, yet in simplicity it is an air conduit. A normal nose will:

- Allow air to pass with only a little resistance.
- Stir the air gently to warm and humidify the air as it contacts the warm moist nasal tissues.
- Stir the air enough to allow mucous to filter dust and other pollutants.
- Stir a small amount of air to sample for the sense of smell and taste.

As you can see the function of the nose requires airflow to be disrupted or stirred. This is a principle called turbulence. When air flows across the contour of any object it creates turbulence. The more abrupt the contour, the greater the turbulence. Any surface within the nose that may have an abrupt contour may create excessive turbulence, which resists airflow. This is why airplanes have smooth contours, it helps them cut through the air more efficiently.

Since the nose is just a fancy conduit or pipe, we can use the analogy of a pipe for the nose. If a pipe is small in diameter or if it has a lot of elbows or turns the water or air will not flow easily through the pipe. If the nose contains bulky, congested or swollen tissues it is like having a small diameter pipe. Also if the contours within the nose are irregular, it is like having numerous elbows in the pipe.

The nasal septum is approximately 1/8 of an inch thick and separates the right and left sides of the nose. An ideal septum is strait. A deviated septum is a septum that is bowed or angulated in such a way that it disrupts airflow. A deviated septum may create mild to rather severe conditions including:

- Mild to severe restriction of air flow
- Impaired sense of smell and/or taste
- Nasal drying, crusting and infection
- Nose bleeds
- Headache
- Sinus Infections

Nasal turbinates run the length of the inside of the nose and at their largest may be as big as a small finger. The turbinates shrink and swell in response to blood flow through small blood vessels in the nose. When blood flows rapidly in the nose it creates swelling in the turbinates (congestion). Turbinates become a

problem when they grow to a size that reduces airflow (reduce the diameter of the pipe).

Septum and turbinate surgery is performed to smooth or straiten the septum and reduce the size of the turbinates. It is performed through the nostrils without any external incisions. Because the actual external nasal bones or tissues are not disturbed, black eyes after surgery are rare.

Problems with the septum usually affect the turbinates, therefore septal surgery usually requires turbinate surgery. If the septum is normal, the turbinates can be addressed independently.

Non-Surgical Medical Therapy

Surgery is considered when reasonable medical treatments are ineffective or unlikely to prevent problems in the future. Non-surgical treatments include:

- Saline spray or irrigation
- Antibiotics
- Steroids and other medicines that reduce inflammation
- Decongestants
- Allergy therapy
- Smoking cessation and avoiding poor air quality.

Risks of Septum and Turbinate Surgery

- Severe Bleeding is very rare because nasal blood vessels are usually small. Minor bleeding is common because the nose has numerous small blood vessels. Minor bleeding rarely requires any intervention.
- Complications from infection are rare.
- The septum can develop a hole (perforation).
- Sense of taste and smell is usually improved with nasal surgery, but in rare cases it can be impaired.

Pain following surgery

Most of the questions about septum and turbinate surgery concern recovery. This is highly variable. For the most part, nasal surgery is well tolerated with minimal to moderate pain. The most significant factor affecting recovery is the nature of the patient. Patients with relaxed easy-going personalities seem to breeze through recovery. Anxious patients with a tendency towards claustrophobia seem to struggle more.

Other factors that affect recovery include the amount and type of packing used and the necessity for cautery. My preference is to use the least amount of packing necessary and to avoid cautery, this speeds healing and reduces postoperative pain.

Preoperative instructions

- Do not take any aspirin or anti-inflammatory for 7-9 days prior to surgery.
- Do not eat or drink anything after midnight prior to surgery unless the hospital informs you differently.
- The hospital should call the afternoon prior to surgery to give arrival times and instructions, which are set by the hospital not the doctor.

Postoperative Care

It is common to have bleeding from the nose and some may also pass down the back of the throat for three or more days following surgery. The amount of bleeding usually appears greater than it really is.

The single most controllable factor that contributes to bleeding after nasal surgery is anxiety. Patients that become anxious after surgery for any reason will bleed more.

DO NOT TAKE ASPIRIN OR A NONSTEROIDAL DRUG SUCH AS IBUPROFEN, ADVIL OR MOTRIN. THESE MEDICATIONS CAN CAUSE EXCESSIVE BLEEDING.

Care after nasal surgery focuses on factors that will reduce swelling, bleeding and aid healing.

There are FOUR important postoperative instructions.

- 1) Keep you head elevated at all times for at least a week following surgery. It will reduce both bleeding and swelling.
- 2) Keep your nose moist. At a minimum run a humidifier and spray saline nasal spray (i.e. Ocean Nasal Spray) every hour while awake. (Even if your nose gets congested.)
- 3) No lifting or straining for seven to ten days.
- 4) No nose blowing for ten days.

Nasal Obstruction

To keep the septum strait during the healing process a long, soft rubber tube is placed in each nostril. It may allow air to flow through the nose, but it gets plugged easily. You may prevent this from getting clogged by keeping your head elevated and your nose moist. If the tubes get clogged try standing in a steamy shower for about an hour or rinse your nose with saline (1 teaspoon of salt in a quart of boiled water) using a rubber baby bulb syringe.

Nausea and Vomiting

- General anesthesia can cause nausea, especially within the first twenty-four hours.
- Small amounts of blood swallowed after surgery can increase nausea.
- Pain medicine taken on an empty stomach will usually cause vomiting.
- If you are nauseated, take only clear liquids and avoid the use of pain medicine until the nausea passes for at least an hour. If you need pain medicine, try taking only half doses or use plain Tylenol, which rarely causes nausea.
- Remember – if you throw up the pain medicine it won't work anyway, so its better to avoid pain medicine until the nausea passes and you can hold some light foods down.

What to watch for/When to call?

- Temperature over 102 degrees Fahrenheit.
- Neck pain
- Excessive Bleeding
- Signs of dehydration (dry mouth, less than 6-8 wet diapers, lack of tears.)
- Excessive diarrhea/constipation
- Chest pain or shortness of breath: GO TO THE EMERGENCY DEPARTMENT!

Whom to call:

- In the event of an emergency, call 911.
- Dr. Child 464-7510 or the Doctor on call 801-408-5060
- If unable to contact your doctor, or one of his colleagues in the event of an emergency, go to the nearest emergency room.

Follow-up Appointment:

Call Dr. Child's office at 464-7510 as soon as possible for an appointment. If you had surgery for a deviated septum then you must follow up 5-6 days following the surgery (usually Tuesday) or 10-14 days after surgery if only turbinate surgery was performed.