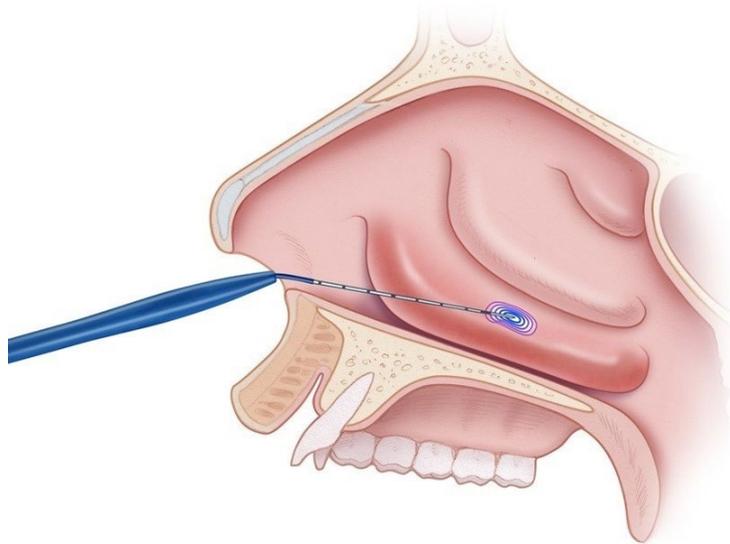




## Turbinate reduction



### What are turbinates?

- The turbinates are small structures inside the nose that heat and humidify the air that passes through the nose and into the lungs.
- They are made up of a bony structure surrounded by spongy vascular tissue and covered by a mucous membrane. The turbinate(s) can become swollen and inflamed by allergies, toxins or infection which in turn can cause nasal obstruction and a build up of crusts and mucus.

### What are signs of turbinate enlargement?

- Turbinate enlargement should be suspected when there are recurrent or prolonged nasal infections, loud snoring, mouth breathing or obstructed nasal breathing.
- Turbinate enlargement may be related to environmental exposures such as dust or smoke.
- Turbinate enlargement can contribute to obstructive sleep apnea, excessive sleepiness or poor daytime function and behavioral issues

### Testing and diagnosis

- Often clinical diagnosis is sufficient based on your child's history and physical exam
- Alternately a small flexible endoscope can be used to examine the turbinates in clinic.
- When nasal obstruction fails to respond to medical management, CT imaging may be helpful and often reveals turbinate enlargement.

## Treatment

- A nasal steroid spray is considered first line medical management for pathologic turbinate enlargement.
- Allergy assessment and treatments may also be helpful.
- If these fail, turbinate reduction may be indicated. This is a procedure performed in the operating room under anesthesia.
- Reduction of the turbinates when indicated can vastly improve nasal breathing, decrease the severity and frequency of nasal infections, and can help cure snoring and sleep apnea.
- Reduction of the turbinates is often performed with other nasal procedures such as adenoidectomy, septoplasty and/or more extensive sinus surgery.
- The turbinates are typically reduced using telescopes and working with small instruments through the nostril, requiring no external incisions. The turbinates are then pushed to the sides of the nose so as to create more space for breathing. Occasionally a small amount of tissue is excised.
- Often small silicone plastic splints are left in the nose to ensure that the turbinates will heal in the expected location and to prevent scarring. These will usually be removed in clinic, three to seven days after surgery.
- Depending on your child's age, medical history and other planned procedures, reduction of the turbinates may be performed on an outpatient basis or with overnight admission.

## What should we expect after turbinate reduction?

- Nasal pain is usually minimal after this surgery. Tylenol (acetaminophen) may provide sufficient pain relief. You will be provided with the weight-based dosage for your child. On some occasions Motrin (ibuprofen) may also be used in which case try alternating acetaminophen and ibuprofen so that one or the other may be taken every three hours for 24 to 72 hours after surgery.
- Narcotic medication such as oxycodone can be helpful if the above are insufficient to control pain. Depending on the age and size of your child, you will be provided with a weight-based dose of narcotic pain medication to use as back-up for severe pain.
- If narcotic pain medication is needed, your child may experience itching, nausea and/or constipation.
- Your child should be able to tolerate a clear liquid diet immediately after surgery, and should progress to a normal diet once he/she feels ready.
- Your child may have some nasal bleeding for the first 24 to 48 hours following surgery
- Your child should rest at home for the first five to seven days. Vigorous physical activity should be avoided for two weeks. Bleeding can result if the child becomes overactive too soon. After two weeks, your child's activity level can gradually be increased to normal.
- Encourage your child to sneeze and cough with an open mouth, avoid nose blowing and straining for at least one week post-operatively.
- Saline nasal sprays are used after surgery to help thin out mucus and crust and help with the healing process.

## What are some reasons we should contact our doctor after surgery?

- A low-grade fever (99 - 101F) is common after surgery. Call your physician if your child develops a fever greater than 102F or a fever that does not respond to acetaminophen or ibuprofen.
- Slight bleeding from the nose can occur if your child advances activity too quickly. If this bleeding is severe, soaking through tissues or failing to stop, call your doctor.
- The turbinates are spongy and vascular structures and may become engorged or swollen even after surgery due to allergy or a bad nasal infection. Contact us if this problem persists.

