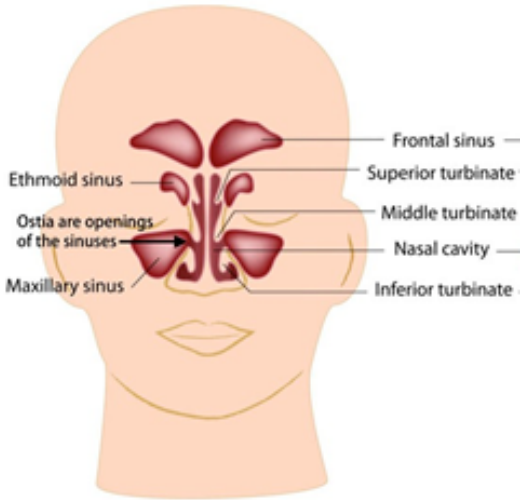
HYPERTROPHY TURBINATES

NASAL OBSTRUCTION
NASAL CONGESTION
RADIOFREQUENCY



Nasal turbinates are spongy bone structures that protrude into the nasal passages and direct airflow inside the nose. There are three turbinates (inferior, middle, and superior) on each side of the nasal septum. The inferior turbinate, located closest to the nasal opening, is the most important turbinate and the largest in size. The turbinates are covered by respiratory epithelium, a specific type of tissue that helps clean and humidify the air as it passes through the nose. The epithelium also serves as an immunological defense. When a microbial or chemical irritant is present, the cells trigger an immune response that results in inflammation.

Turbinate Hypertrophy

The tissue lining of each turbinate contains a number of blood vessels. These blood vessels allow the turbinates to swell and shrink as part of the nasal cycle. Factors such as allergies, chemical irritants, infections or temperature changes can cause the turbinates to expand. Typically, the enlargement is temporary and the nasal obstruction resolves naturally. However, in some cases, the turbinates become chronically, enlarged, and this condition is known as nasal turbinate hypertrophy.

Symptoms of Turbinate Hypertrophy

- Difficulty breathing through one or both side of the nose
- Snoring
- Chronic sinus infections
- Frequent nosebleeds

Causes of Turbinate Hypertrophy

Allergies: trigger an immunological response that cases swelling of the turbinates.
Environmental irritants: Things like cigarette smoke, perfumes, etc can cause irritation that results in inflammation of the turbinates.
Hormonal changes
Medications: drugs to treat high blood pressure
Septum deviation: Significant deviation of the septum can lead to compensatory turbinate enlargement where the turbinates on only one side of the nose become chronically swollen.

Treatment for Turbinate Hypertrophy

Antihistamines and immunotherapy (allergy shots) can minimize the frequency and severity of the immune response and swelling of the turbinates when allergies are the underlying cause.
Nasal steroid sprays are prescribed to reduce the inflammation of the turbinates and improve breathing.
Surgical turbinate reduction is performed when other therapies are not effective. This surgery aims to reduce the size of the turbinates thereby opening the nasal airways. There are several different surgical methods that are used to reduce the size of the turbinates. While some techniques remove part of the bone structure, others attempt to shrink the tissue of the turbinates. Turbinate surgery can be performed in conjunction with septum surgery or sinus surgery when needed.

Radiofrequency Turbinate Reduction

Radiofrequency turbinate procedure, also known as Somnoplasty, can provide significant relief from many symptoms of turbinate hypertrophy. Radiofrequency of the turbinates is a quick procedure with minimal discomfort and is performed in an outpatient setting. Before the procedure, the nose is numbed with a local anesthetic. The radiofrequency handpiece emits radiofrequency energy, it is inserted into the turbinate. The result is shrinking of the tissue, leading to an overall reduction in turbinate size without the removal of bone. The nasal passages are thereby opened and the nasal obstruction is resolved.

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