

# Advice from your Allergist

## Mechanical Blockage of the Nose

Not all symptoms in the nasal passage are caused by allergy or infection. Similar symptoms – nasal congestion, sneezing, coughing, itching or watery eyes – can be caused by mechanical blockage, use of certain medications, irritants, temperature changes or other physical factors

Rhinitis, any disorder causing inflammation or irritation of the nasal passage, can also be a feature of other diseases and medical conditions. Different causes of symptoms of rhinitis may coexist in the same person.

### **Mechanical blockage**

Mechanical blockage of the nose really isn't rhinitis, although it produces congestion which is a symptom of rhinitis. When rhinitis and mechanical blockage coexist, symptoms are likely to be more severe. Mechanical blockage should be suspected when one side of the nose is more affected than the other or when the symptom of congestion is not helped much by decongestant medications. Causes of mechanical obstruction include foreign bodies, deviation of the bone and tissue separating the nostrils, nasal polyps, nasal tumors, and enlargement of adenoids or turbinates.

### **Foreign bodies**

Young children – and sometimes adults – will put nearly anything in the nose. When a foreign body becomes lodged, nasal obstruction results. This may be associated with a foul smelling colored nasal discharge from one nostril.

### **Septal deviation**

The two sides of the nose are separated by the nasal septum, which is made up of cartilage and bone. The septum is not perfectly straight. In some people, it can curve around enough to block one or both sides of the nasal passage completely. This blockage can occur in front, where it is easy to see, or in back, where a thorough nasal examination may be necessary to find it. When it is severe, the only effective treatment is surgery.

### **Nasal polyps and tumors**

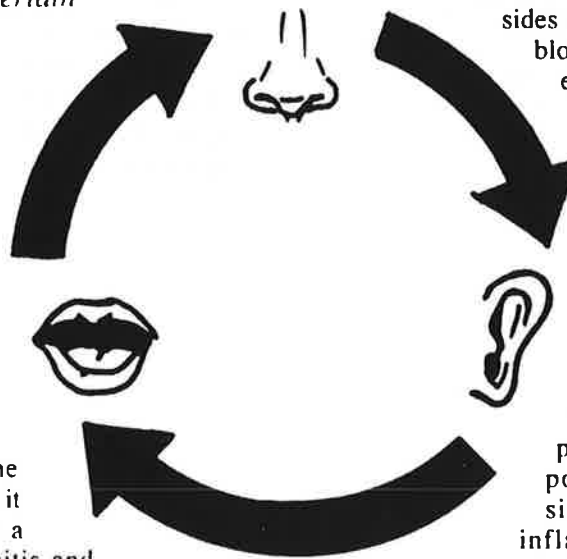
Nasal polyps are fluid-filled grape-like sacs formed by mucous membranes of the sinuses or nasal passages. Most polyps originate in the sinus cavities, entering the nasal passages to cause obstruction. These polyps are associated with chronic sinusitis. More rarely, long standing inflammation (allergic or nonallergic) causes the tissues of the nasal passage itself to form obstructing polyps. The Greek physician Hippocrates described nasal polyps as well as a surgical procedure for controlling them.

Fortunately, nasal tumors are not common. Examination by an otolaryngologist (ear, nose and throat doctor) is necessary for diagnosis of nasal tumor.

### **Adenoid and turbinate hypertrophy**

The adenoids are a collection of tissue located in the upper part of the throat at the rear opening of the nostrils. When enlarged, they can occlude the rear nasal opening, and can also affect function of the eustachian tube, which equalizes pressure between the middle ear and throat.

The nasal turbinates are bony structures, covered by



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nasal tissue, which project into the nasal cavity. When the bony framework is large, it can cause severe nasal obstruction requiring surgical correction.

### ***Trouble sleeping***

Nighttime nasal obstruction can interfere with normal sleep. Adults and children deprived of normal sleep may have excessive daytime sleepiness or even experience behavior changes.

Obstructive sleep apnea is a more serious disorder of sleep caused by nasal obstruction. Characteristic symptoms are loud snoring, restless sleep and irregular breathing, daytime sleepiness, and behavior changes, such as irritability and difficulty concentrating. It can also result in high blood pressure and heart problems.

### ***Orthodontic problems***

Long standing nasal obstruction can interfere with normal development of facial bones. This can also interfere with tooth alignment, causing orthodontic problems.

Sometimes a child's nose is congested and obstructed to the point that he or she breathes through the mouth while sleeping. If the congestion is left untreated, this mouth breathing forces air currents through the mouth. The force of the air then changes the way the soft bones of the face grow. The face may actually become abnormally elongated, causing the teeth to come in at an improper angle and creating an overbite.

### ***Chronic otitis media***

The eustachian tube equalizes pressure between the middle ear and the outside environment. Acute blockage of the eustachian tube (as from a cold) can result in an ear infection, and long standing eustachian tube blockage can result in persistent fluid in the middle ear, perhaps associated with hearing loss. If hearing loss occurs at a critical time in development, speech delays may result.

### ***Other problems***

Severe nasal obstruction can make chewing food difficult because of the need to breathe through the mouth at the same time. Nasal obstruction can also interfere with the sense of smell and the companion sense of taste. A characteristic "hyponasal" voice is also a feature of nasal obstruction.

### ***Treatment***

Surgery is most useful for relief of symptoms, not relieved by medication or immunotherapy, such as severe septal deviation or greatly enlarged adenoids obstructing nasal airflow. Turbinate hypertrophy (enlargement) or nasal polyps may not respond to medical treatment and require surgery. Medical alternatives should be given a trial before surgery is considered.

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