



Ensure better hearing & speech -- see an ear, nose, and throat specialist for a medical diagnosis of all communication disorders.

## Hypernasality: A Treatable Speech Disorder

### What is it?

Hypernasality is a speech disorder occurring palate and pharynx tissues do not close properly. This inadequate closure causes air to escape through the nose during speech instead of coming out of the sides and back of the throat, particularly with certain sounds such as “p,” “b,” “s,” and “k.” In children, hypernasality can occur after cleft palate surgery, from a deformation of the face (such as Down Syndrome), or from neurologic problems. This condition rarely occurs after surgery to remove the adenoids and sometimes in otherwise healthy children. It can also be a learned behavior.

### Consequences

Hypernasality can make a child’s speech very difficult to understand and can negatively impact a child’s quality of life. Children with hypernasal speech are often perceived as being less intelligent, less pleasant, and less attractive than their peers with normal speech. Such perceptions can seriously affect a child’s self-esteem (and in the future, vocational opportunities).

### What to expect when your child visits the doctor

Diagnosis and treatment of hypernasality can be very complex. An analysis of your child’s speech should include an examination by an otolaryngologist and team of specialists who will provide a complete head and neck evaluation, speech evaluation, and possibly a hearing test. Additionally, a nasopharyngoscopic examination is usually performed to determine the cause and severity of the speech problem. This involves looking at the back of a child’s throat with a small telescope while he or she is speaking to see how the muscles of the throat work during speech. It will help determine what the anatomic problem is and how it should be treated.

The physician will administer anesthetic drops in one side of the nose to prevent discomfort during the nasopharyngoscopic exam. A very small, flexible telescope is then gently placed in the nose in order to see the back of the throat. Your child will be asked to say a few words or sentences with the telescope in place. This takes just a minute or two to complete.

A videofluoroscopic exam might be required to help determine correct treatment. During this x-ray study, a few drops of dye are placed in the nose, and with the child speaking, a one to two minute x-ray film is taken.

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## Treatments

Treatments for hypernasality may include prosthetic appliances, surgery, therapeutic intervention, or a combination of these treatments. Speech therapy is usually combined with other treatments to provide long-term benefits. If hypernasality is the result of learned behavior, speech therapy alone may be recommended.

If a problem in the patient's body structure is causing hypernasal speech, surgery may be suggested. Surgery will reduce the gap between the palate and pharynx and lessen the air leakage into the nose, helping to make speech sound more normal.

Typically, surgical procedures for hypernasality take about 1½ hours to perform and require one or two nights in the hospital. In a small number of children, speech may not be corrected with a single procedure, and a second operation may be necessary. The following list of surgical procedures will be tailored to your child's anatomy.

**Repair of Fistulae** (holes in the palate) – This procedure involves the surgical repair of any holes remain in the palate after cleft palate surgery.

**Furlow Palatoplasty** – Typically performed on children with cleft palate, this procedure is used to realign the muscles of the soft palate while also lengthening the structure. The additional length makes it easier for the palate to contact the back of the throat, closing the gap that results in hypernasality. Realignment of the muscles of the palate may also improve middle ear disease, which is common in children with cleft palate.

**Pharyngeal Flap** – This technique consists of sewing a flap of tissue from the back of the throat into the palate to block the back of the throat and alleviate air leakage into the nose. Two holes are left on either side of the flap for breathing and nasal drainage. Sometimes this procedure can overcorrect the deficiency, causing obstruction of the nose. Obstructive sleep apnea is a relatively common complication after pharyngeal flap surgery. Though previously a common surgical technique, newer techniques that result in fewer complications are often used.

**Sphincter Pharyngoplasty** – During this procedure, flaps of tissue from the back of the throat are used to build a "speed bump" in the nasopharynx (area behind the soft palate) which helps the soft palate connect with the back of the throat. The size of the "speed bump" is tailored to the size and shape of the gap at the back of the throat and cannot be seen when looking into one's mouth.

## Speech Prostheses

There are children who are poor surgical candidates and may benefit from dental prosthesis. These devices are designed by a speech prosthodontist to prevent excess air leakage into the nose during speech, and are removable. Creating the device requires weekly or biweekly visits over the course of several months. If the device is not used, speech will be unintelligible (much like wearing a hearing aid or glasses is necessary to achieve enhanced hearing or seeing).

NOTE: Contents of this fact sheet are based on information provided by the Department of Otolaryngology -- Head and Neck Surgery at the College of Physicians and Surgeons, Columbia University, online: [www.entcolumbia.org](http://www.entcolumbia.org)

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