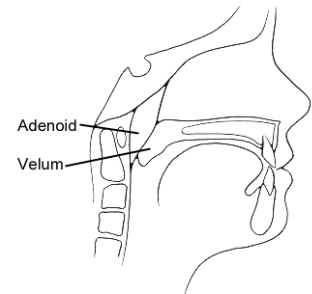


## Post Adenoidectomy Nasality

The **adenoids** are a mass of lymphoid tissue located on the back of the throat, just behind the nose. The adenoids help an infant's immune system, but their value decreases rapidly in early childhood.

**Adenoidectomy** (often combined with a tonsillectomy) is the surgical removal of the adenoids. This is done when they cause upper airway obstruction (with mouth breathing or snoring), chronic infections, or earaches.



- Although the risk is relatively small, adenoidectomy (not tonsillectomy) can cause postoperative “nasality.” This is further explained below.
- During normal speech, the velum (soft palate) moves upward and backward to close against the posterior pharyngeal wall (back wall of the throat). This velopharyngeal closure is necessary to block off the nose from the mouth during speech.
- Most children have adenoid tissue on the pharyngeal wall in the area of velopharyngeal closure. In fact, many children actually have velo-adenoidal closure, rather than velopharyngeal closure. (See the diagram above that shows velo-adenoidal closure during speech.)
- Adenoidectomy, particularly if it is aggressive, causes a sudden increase in the depth of the pharynx (throat area).
- Velopharyngeal insufficiency (VPI) occurs if the velum is not long enough to reach the pharyngeal wall after the adenoidectomy.
- VPI results in “nasality” (hypernasality and/or nasal air emission) during speech.
- Some children have temporary VPI after adenoidectomy. The speech symptoms resolve spontaneously in 4-6 weeks after healing takes place and the child adjusts to the larger space in the back of the throat.
- Permanent VPI is a risk however, especially for a child with cleft palate or submucous cleft.
- VPI cannot be evaluated by just looking in the mouth. The best way to evaluate VPI after adenoidectomy is through nasopharyngoscopy (placing a small scope in the nose).
- VPI that has not resolved within about 2 months post-adenoidectomy requires surgical intervention. A pharyngeal flap is often the best surgery for this situation because it closes the structure where the adenoids were.
- Because VPI after adenoidectomy is due to a change in structure, speech therapy is not appropriate to correct the nasality. (Speech therapy is only indicated if there are errors on certain speech sounds that were noted prior to the surgery.)

- Even if the nasality is better with effort, the child is usually not able to maintain this throughout the day.
- Exercises don't work because the problem is not the muscles of the velum. Instead, the nasality is due to the extra space created by removal of the adenoids.
- Surgical treatment for VPI should be done by a surgeon who specializes in clefts and VPI and does this surgery frequently.

For more information, please contact the Division of Speech-Language Pathology at (513) 636-4341 or visit our website at [www.cincinnatichildrens.org/speech](http://www.cincinnatichildrens.org/speech).