

## Cleft Palate Speech Glossary

**Resonance:** refers to the way airflow for speech is shaped as it passes through the oral (mouth) and nasal (nose) cavities. Children with cleft palate often have resonance disorders due to velopharyngeal dysfunction.

**Velopharyngeal Valve:** refers to the coordinated movement of the soft palate, sides of the throat and back of the throat to close off the opening between the mouth and nose.

**Velopharyngeal Dysfunction (VPD):** happens when the opening between the mouth and nose (i.e. velopharyngeal valve) is not closed properly. There are three main types of velopharyngeal dysfunction:

- **Velopharyngeal Incompetence:** not enough closure of the velopharyngeal valve due to a neurological problem.
- **Velopharyngeal Insufficiency (VPI):** happens because of an anatomical or structural defect such as a short soft palate. Hyponasality due to velopharyngeal insufficiency will not improve with speech therapy alone.
- **Velopharyngeal Mislearning:** the child has not learned how to use the velopharyngeal valve appropriately. This type of VPD will most likely respond to speech therapy.

Symptoms of velopharyngeal dysfunction (VPD) due to incomplete closure of the velopharyngeal valve may include:

- **Hyponasality:** too much sound coming out of the nose during speech.
- **Nasal Air Emission:** happens when air leaks through the nose (because of a short palate or fistula) while trying to build up pressure for consonant sounds. It is often described as a “windy” sound.

- **Nasal Rustle/Turbulence:** a “rustling” noise that is made when air loss through the nose causes “bubbling” of nasal secretions.
- **Weak or omitted consonants.**
- **Short utterance length** due to loss of air through the nose.
- **Compensatory speech errors** (see below).
- **Phoneme-Specific Nasal Emission of Air:** audible nasal air loss on only a few sounds (usually s and z). This happens because of velopharyngeal mislearning.

Symptoms of velopharyngeal dysfunction due to a blockage or obstruction may include:

- **Hyponasality:** decreased airflow through the nose due to a blockage in the nose, such as a bad cold or enlarged adenoids.
- **Cul-de-Sac Resonance:** happens when airflow through the mouth is obstructed, often by enlarged tonsils, causing a “muffled” speech quality.

**Compensatory speech errors:** speech errors that are directly related to cleft palate/velopharyngeal dysfunction. These errors are often attempts to adjust for nasal air loss. Examples include:

- **speech sound distortions** (“slushy” or “mushy” sounds) if your child’s teeth do not “line up” correctly.
- **glottal stops** – using the larynx (voice box) to produce sounds instead of the tongue or lips. This sounds like the first sound in “uh-oh” and is typically used for p, b, t, d, k, and/or g sounds.
- **nasal substitutions** –using the tongue and lips correctly but the air is coming out of the nose. For example, p and b sound more like m. T and d sound more like n.

- **pharyngeal fricatives and stops** – using the walls of the throat (not the tongue) to produce sounds. This is most common with s, z, sh, k and g sounds.

### Questions?

This sheet is not specific to your child, but provides general information. If you have any questions, please call the Cleft Clinic at (612) 813-6888. Additional resources include:

- Cleft Palate Foundation ([www.cleftline.org](http://www.cleftline.org))
- Additional patient/family education sheets:
  - Resonance Disorders
  - Speech Development Related to Cleft Palate

For more reading material about this and other health topics, please call or visit the Family Resource Center library, or visit our website: [www.childrensmn.org/A-Z](http://www.childrensmn.org/A-Z).