



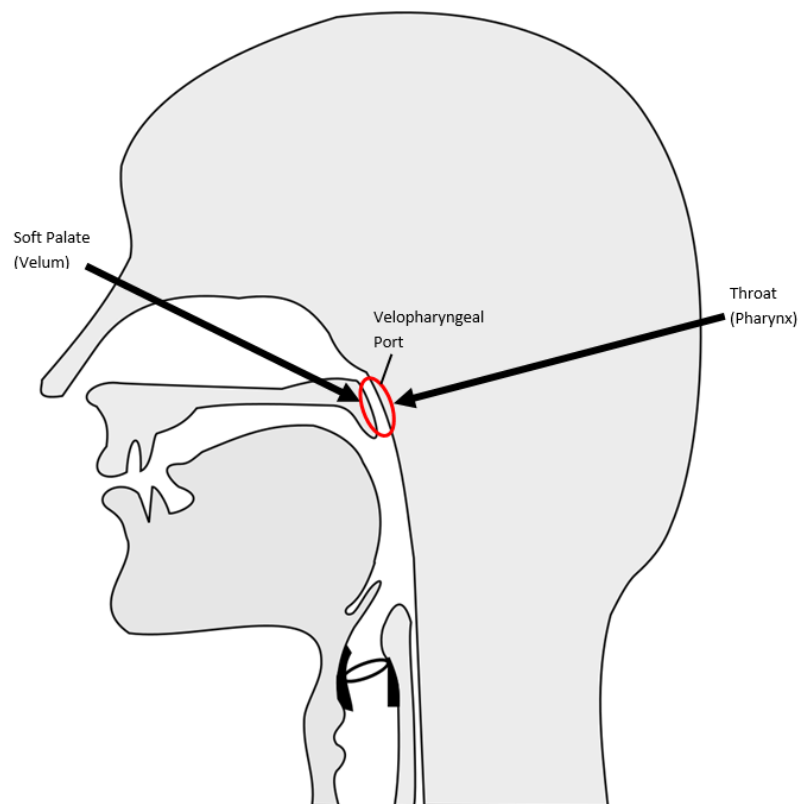
Speech Development in Toddler to Preschool-Aged Children with Cleft Palate

Early Speech Development

Communication begins at birth, with different cries to indicate needs (i.e., hunger, diaper change, fatigue, etc.) As children get older they begin to incorporate a greater variety of sounds, starting out with vowel-like sounds (e.g., “oooo”), cooing, and vocal play (e.g., blowing raspberries). Around six to nine months of age, they begin to incorporate consonant sounds to produce babbles (e.g., “mamama” “dadada”). They combine babbles and sounds with gestures and start associating meaning with communication attempts. During these early months, babies learn they can use their voice to get attention and get their needs met.

Impact of Cleft Palate on Speech

The back part of the palate, also called the “velum” plays an important role in speech because it rises up and touches the back wall of the throat, also called the “pharynx.” This allows pressure to build up in the mouth or create what we call “mouth air”. This closure process is called velopharyngeal (VP) closure. VP closure is necessary to produce pressure consonants or “mouth sounds” (p, b, t, d, k, g, f, v, s, z, sh, ch, j, th). Sounds that do not require VP closure are called nasals “nose sounds” (m, n, -ng), vowels, and low pressure sounds (h, l, w, y, r.) These mouth and throat structures are important to consider in the speech development of children with cleft palate because without an intact palate, these children cannot produce any oral pressure consonants (“mouth sounds.”) Therefore, we would expect that a child with an unrepaired (open) cleft palate would produce only vowels, nasals (“nose sounds,”) and low pressure sounds.





How You Can Encourage Speech Development

As caregivers, you can do a lot to help your child develop speech and language skills and prevent them from developing bad speech habits.

The following are some ideas for how to work speech practice into your daily routine.

- Be vocal around your child. Talk about or narrate what you are doing (e.g., while playing with cars, "I have a bus," "the bus says beep, beep.")
- Play imitation games with your child. Children learn how to produce sounds and words by hearing them and practicing them in play. When you hear your child babbling or talking, repeat back what they are saying as if you are having a conversation with them. You can also add new sounds to encourage your child to expand their vocabulary and sound repertoire (e.g., Child: "mamama." Parent: "mababama.")
- Avoid throat sounds and grunt-like sounds. Do not repeat them or draw attention to them if your child makes these sounds. Instead you can repeat back to them the attempted word, or make another sound that you know your child can make, such as "ooooow," "weee," "mamama," etc. It is important to model sounds that are used in words, to further encourage your child to develop speech sounds rather than growls, grunts, or other bad speech habits. (e.g., Child makes throaty car sound while playing with a toy car. Parent says: "Vroom-vroom," "The car is fast.")
- Similarly, avoid saying "uh-oh," as this word includes a sound called a glottal stop, which is not used in American English and can increase your child's risk for developing bad speech habits which require speech therapy to correct. Instead of "uh-oh", you can say "oops," "whoops," or "oh no," as all of these words use sounds that are used in our language and should be encouraged.

Before palate repair, you can encourage your child to say vowels, low pressure sounds, and nasal sounds

o Examples of low pressure and nasal words:

- | | |
|---------------|---------|
| • Mama | • Hi |
| • More | • Hop |
| • Mine | • Happy |
| • No | • Whoa |
| • Night-night | • Want |
| • Num-num | • Yum |
| • Lalala | • Yeah |

After palate repair surgery you want to focus on modeling or using words and sound effects with oral pressure or "mouth sounds." Emphasize sounds at the beginning of words to encourage your child to imitate. Praise your child specifically when they produce a mouth sound correctly (e.g., say "good job using your mouth air!" For "b" or "p" specifically you could say: "good job using your lips!")



- Examples of pressure consonant words:
 - Bye
 - Bubble
 - Ball
 - Boo
 - Baba (bottle)
 - Beep
 - Pop
 - Up
 - Papa
 - Puppy
 - Dada
 - Dad
 - Done
 - Dog
 - Two
 - Toy
 - Go
 - Gaga
 - Cookie
 - Cat

You can incorporate these words and more into a variety of activities.

- **Meal time:** Give choices between two items. “Do you want banana or apple?” You can also offer small pieces of food at a time and request your child ask for “more.” Model “yummy” after every couple of bites.
- **Reading:** Pick books with interesting pictures and a lot of words with “mouth sounds” (p, b, t, d, etc.) You do not need to read word-for-word. Rather, point out the pictures with the target sounds and use simple vocabulary to encourage your child to name or imitate (e.g., “I see a **bee!**”, “**buzz!**”) You can find free printable books that emphasize different pressure consonant sounds at www.leadersproject.org/english-cleft-palate-directory/
- **Bubbles:** Model the word “bubble” and encourage your child to attempt the “b” sound. Offer to let them try to “blow” the bubbles. Talk about “pop” as you use different body parts to pop the bubbles (e.g., “you popped it with your nose!”)
- **Bath time:** While playing in the bath, you can talk about toys (e.g., “duck says quack quack”), or make sounds with the water “splash”, “plop”, and “wa-wa.”
- **Play time:** Set up the environment so your child has to communicate to request or participate in play. Put no more than two toys out at once so your child has to request more. Withhold or leave out pieces of a game to encourage your child to request them verbally (e.g., when playing with an animal puzzle, keep puzzle pieces in a container and request your child name the animal or sound before you give them another puzzle piece.)

Helpful resources

Websites:

- <https://cleftline.org/family-resources/booklets-fact-sheets/>
- <https://www.leadersproject.org/english-cleft-palate-directory/>

Books:

- *Children with Cleft Lip and Palate: A Parents' Guide to Early Speech-Language Development and Treatment.* By: Mary Hardin-Jones, Kathy Chapman, & Nancy Scherer