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## When to Worry About Articulation Development in Children

Children acquire speech sounds in a fairly predictable sequence however the age of onset for these sounds can vary from child to child. Some children acquire a wide variety of sounds early on and are easy to understand from an early age. Other children take longer to acquire their sound system and their speech can be difficult to understand. At what point should a parent become concerned and seek help?

The foundation for speech sound development begins at birth. Newborns learn that crying will help get their needs met. As early as two to three months of age, infants typically begin to make "cooing" sounds and learn to vary pitch and volume. By 4-6 months they should begin to engage in "vocal play" (i.e. they start putting sounds together, making raspberries, squealing, yelling etc.) This helps them gain greater control of their oral structures and they begin to produce sounds that are more like speech. By 6-11 months they should begin to "babble" where they begin repeating consonant syllables. Typically, the consonant sounds made with the lips (p,b,m) are the first to arrive e.g. "ba-ba-ba-ba" or "ma-ma-ma-ma". All of these skills provide the foundation for the development of speech sounds.

Typically, first words appear around one year of age. To be considered a "word", it does not necessarily have to be pronounced correctly, just used consistently (e.g. a child may say "du" or "ju" for juice). Simplification of adult forms of words is a normal developmental process at this age. Some children acquire their first words prior to their first birthday, other children a few months after. Children born prematurely require an age adjustment where first words would be expected to appear approximately thirteen months from the planned due date not the actual birth date.

By two years, a child should demonstrate some beginning word combinations (e.g. "Mommy up", "Daddy car"), and simplification of adult forms of words are to be expected. Between two and three years of age children develop speech rapidly. They begin to use a greater variety of sounds and sound combinations, they begin to produce simple sentence forms and their vocabulary explodes. At the minimum, a two year old child should use at least 50 words and have some beginning word combinations.

Articulation development follows an orderly sequence and developmental error patterns are to be expected at each stage in development. As sounds become more difficult to pronounce, increased coordination of the muscles in the lips, tongue, jaw and soft palate are required. A child will often delete or substitute sounds to simplify more complex sound combinations.

For example: A three year old might say "nana" for banana or "tar" for car  
A four year old might say "sanwit" for sandwich  
A five or six year old might say "wed" for red.

These are very typical and predictable error patterns we expect to hear from children at these ages as they attempt to speak more and more complex adult-level words. The following demonstrates the age ranges in which the correct production of these sounds should appear:

p,b,d,t,m,n,w,h	By two years*
k,g,f,v,ing,	By four years*
s,z,ch,sh,j, l	By five years*
r,th	By six years*
*These ranges serve as a general guide for parents (sounds within each age range occur at more specific ages than presented). By the end of a child's seventh year, he/she should have achieved mastery of all sounds.	

### Delay vs. Disorder?

A child is said to have an **articulation delay** when the sounds are acquired in the expected sequence but the developmental errors persist beyond the age we expect (e.g. when a four year old continues to say “tar” for car or “nake” for snake). A child is said to have an **articulation disorder** when their error patterns and/or sound acquisition sequence deviate from those seen in most children their age. A **phonological disorder** occurs when error patterns are more severe and affect an entire group of sounds with similar characteristics. In all cases, a referral to a Speech Language Pathologist is indicated.

### A referral is indicated in the presence of the following:

1. Limited production of consonant sounds by two years.
2. Poor sound imitation skills or lack of interest in speech by two years.
3. Child lacks interest in shared or reciprocal play by their first birthday.
4. Difficulty understanding a child’s speech beyond the third birthday.
5. Child has unusual or atypical error patterns in his/her speech
6. Child has typical error patterns but they persist beyond the expected age
7. A child has not mastered all sounds by the end of their sixth year.

*Note: This article serves as a general guideline for parents regarding sound development only. Please don’t hesitate to contact us if you have any additional questions regarding your child’s speech or language development.*