



## **What is Phonological Disorder?**

Most children make mistakes as they are learning to talk and learning to say new words. Learning speech sound production is a complex process that incorporates the planning, coordination and movement of speech sound articulators (including the jaw, lips, teeth, tongue, palate, cheeks and voice box).

A phonological disorder is when a child has difficulty understanding the speech rules that our language require, which other children pick up on naturally. Their errors, called phonological processes, are a typical part of development. They are the child's way of simplifying adult's speech when it is difficult for them. However, these errors become categorized as a phonological disorder if they are not naturally remediated by a certain age. They have difficulty with speech sound patterns, and as a result, may delete sounds/syllables or substitute sounds or groups of sounds. A child with a phonological disorder may pronounce a sound accurately in one word and not in another.

### **How is a Phonological Disorder Diagnosed?**

A speech language pathologist will listen to the child talk and will use a formal assessment to promote production of speech sounds in different contexts. Based on the information gathered, the speech pathologist will determine whether the error patterns (or phonological processes) that are produced are appropriate for the child's age. A phonological disorder can be diagnosed along with an articulation disorder or oral motor disorder.

### **Types of Phonological Processes**

1. Weak Syllable Deletion: omitting the unstressed syllable in a multisyllabic word. Examples: "nana" for "banana"; "ephant" for "elephant".
2. Cluster Reduction: deleting one consonant from a cluster of 2 or 3 consonants. Examples: "p\_ay" for "play"; "\_top" for "stop".
3. Final Consonant Deletion: deletion of the last consonant off words. Examples: "ba" for "back"; "ca" for "cat".
4. Stopping: replacing sounds made with air flow (s, sh) with other sounds that stop airflow (p, d). Examples: "too" for "shoe"; "pire" for "fire"; "hout" for "house".
5. Fronting: replacing sounds made in the back of the mouth (k,g) with sounds in the front (t,d). Examples: "sot" for "sock"; "dough" for "go".
6. Gliding: replacing liquid sounds (r,l) with a /w/ or /y/. Examples: "wabbit" for "rabbit"; "yeyow" for "yellow".

### **What Causes a Phonological Disorder?**

Some possible causes of a phonological disorder are: developmental disorders, genetic syndromes, hearing loss, neurological disorders or frequent ear infections as an infant/toddler.

### **What Do Speech Pathologists Do When Treating a Phonological Disorder?**

The speech pathologist will teach the child how to correctly produce the speech pattern that they are struggling to correct. The child will learn to recognize when speech patterns are correctly or incorrectly produced. They will also practice producing the sounds and patterns correctly in a variety of words and complexity levels (single words, phrases, sentences, conversation) until they are using it well in their natural conversational speech.

| PROCESS            | TYPE                     | AGE BY WHICH IT SHOULD BE SUPPRESSED |
|--------------------|--------------------------|--------------------------------------|
| Syllable Structure | Weak Syllable Deletion   | Age 3                                |
|                    | Cluster Reduction        | Age 3                                |
|                    | Final Consonant Deletion | Age 3 or 3 ½                         |
| Substitution       | Stopping                 | Age 2 ½ or 3                         |
|                    | Fronting                 | Age 2 ½ or 3                         |
|                    | Gliding                  | Age 5                                |

Resources:

<http://www.asha.org/public/speech/disorders/speechsounddisorders.htm>

<http://www.superduperinc.com/handouts/pdf/356%20Phonological%20Disorders.pdf>