Information about Speech

The development of communication skills begins in infancy, before the emergence of the first word. Any speech or language problem is likely to have a significant effect on the child's social and academic skills and behavior. The earlier a child's speech and language problems are identified and treated, the less likely it is that problems will persist or get worse. Early speech and language intervention can help children be more successful with reading, writing, schoolwork, and interpersonal relationships.

Language is different from speech.

Language is made up of socially shared rules that include the following:

- What words mean (e.g., "star" can refer to a bright object in the night sky or a celebrity)
- How to make new words (e.g., friend, friendly, unfriendly)
- How to put words together (e.g., "Peg walked to the new store" rather than "Peg walk store new")
- What word combinations are best in what situations ("Would you mind moving your foot?" could quickly change to "Get off my foot, please!" if the first request did not produce results)

Speech is the verbal means of communicating. Speech consists of the following:

- **Articulation:** How speech sounds are made (e.g., children must learn how to produce the "r" sound in order to say "rabbit" instead of "wabbit").
- **Voice:** Use of the vocal folds and breathing to produce sound (e.g., the voice can be abused from overuse or misuse and can lead to hoarseness or loss of voice).
- **Fluency:** The rhythm of speech (e.g., hesitations or stuttering can affect fluency).

Language Disorders

- When a person has trouble understanding others (**receptive language**), or sharing thoughts, ideas, and feelings completely (**expressive language**), then he or she has a language disorder.
- Types of Language Disorders:
    - **Language-Based Learning Disabilities** are problems with age-appropriate reading, spelling, and/or writing. This disorder is not about how smart a person is. Most people diagnosed with learning disabilities have average to superior intelligence.
    - **Selective Mutism** is a disorder that usually occurs during childhood. It is when the child does not to speak in at least one social setting. However, the child can speak in other situations. Selective mutism typically occurs before a child is 5 years old and is usually first noticed when the child starts school.

Speech Disorders

- When a person is unable to produce speech sounds correctly or fluently, or has problems with his or her voice, then he or she has a **speech disorder**.
- Types of Speech Disorders:
    - **Childhood Apraxia of Speech** (CAS) is a *motor speech disorder*. Children with CAS have problems saying sounds, syllables, and words. This is not because of muscle weakness or paralysis. The brain has problems planning to move the body parts (e.g., lips, jaw, tongue) needed for speech. The child knows what he or she wants to say, but his/her brain has difficulty coordinating the muscle movements necessary to say those words
    - **Orofacial Myofunctional Disorders** With OMD, the tongue moves forward in an

exaggerated way during speech and/or swallowing. The tongue may lie too far forward during rest or may protrude between the upper and lower teeth during speech and swallowing, and at rest.

- **Speech Sound Disorders: Articulation and Phonological Processes** Most children make some mistakes as they learn to say new words. A speech sound disorder occurs when mistakes continue past a certain age. Every sound has a different range of ages when the child should make the sound correctly. ***Speech sound disorders*** include problems with ***articulation*** (making sounds) and ***phonological processes*** (sound patterns).
- **Stuttering** affects the fluency of speech. It begins during childhood and, in some cases, lasts throughout life. The disorder is characterized by disruptions in the production of speech sounds, also called "disfluencies." Most people produce brief disfluencies from time to time. For instance, some words are repeated and others are preceded by "um" or "uh." Disfluencies are not necessarily a problem; however, they can impede communication when a person produces too many of them.
- **Voice:** Problems with the vocal chords.

Language and speech disorders can exist together or by themselves. The problem can be mild or severe. In any case, a comprehensive evaluation by a **speech-language pathologist** (SLP) certified by the American Speech-Language-Hearing Association (ASHA) is the first step to improving language and speech problems.

Medical and Developmental Conditions associated with Speech and Language Disorders:

- **Autism Spectrum Disorder** is a developmental disability that causes problems with communication. Autism can be mild or severe. It is different for every person. Possible signs and symptoms can be:
  - Not speaking or very limited speech
  - Loss of words the child was previously able to say
  - Difficulty expressing basic wants and needs
  - Poor vocabulary development
  - Problems following directions or finding objects that are named
  - Repeating what is said (***echolalia***)
  - Problems answering questions
  - Speech that sounds different (e.g., "robotic" speech or speech that is high-pitched)

- **Cleft Lip and Palate** A cleft lip is an opening in the lip. A cleft palate is an opening in the roof of the mouth. The palate is made up of two parts-the hard palate and the soft palate. The hard palate is made of bone and is towards the front of your mouth. The soft palate is made up of muscle and tissue and is towards the back of your mouth. Most people have a piece of tissue hanging down from the back of their soft palate that can be seen when you open your mouth. This is called the uvula. A child can have a cleft lip, cleft palate, or both. Clefts can happen on only one side of the face or on both sides. A cleft can go only part way through the lip or palate or all the way through. Sometimes there is an opening in the bony part of the palate that is covered by a layer of thin tissue. You may not be able to see this opening because it is covered. This is called a submucous cleft palate. A cleft palate leaves an opening between the roof of the child's mouth and his nose.

- **Right Hemisphere Brain Injury** is damage to the right side of the brain. The brain is made up of two sides, or hemispheres. Each hemisphere is responsible for different body functions and skills. In most people, the left side of the brain contains the person's

language centers. The right side controls cognitive functioning (thinking skills). Damage to the right hemisphere of the brain leads to cognitive-communication problems, such as impaired memory, attention problems and poor reasoning.

- **Traumatic Brain Injury** Any injury to the head may cause traumatic brain injury (TBI). There are two major types of TBI:
    - **Penetrating Injuries:** In these injuries, a foreign object (e.g., a bullet) enters the brain and causes damage to specific brain parts. This focal, or localized, damage occurs along the route the object has traveled in the brain. Symptoms vary depending on the part of the brain that is damaged.
    - **Closed Head Injuries:** Closed head injuries result from a blow to the head as occurs, for example, in a car accident when the head strikes the windshield or dashboard. These injuries cause two types of brain damage:
        - **Primary brain damage**, which is damage that is complete at the time of the accident like a skull fracture.
        - **Secondary brain damage**, which is damage that evolves over time after the trauma like swelling or fever.

http://www.asha.org/public/hearing/