

# Speech and Language Impairments

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## A Day in the Life of an SLP

Christina is a speech-language pathologist. She works with children and adults who have impairments in their speech, voice, or language skills. These impairments can take many forms, as her schedule today shows.

First comes Robbie. He's a cutie pie in the first grade and has recently been diagnosed with childhood apraxia of speech—or CAS. CAS is a speech disorder marked by choppy speech. Robbie also talks in a monotone, making odd pauses as he tries to form words. Sometimes she can see him struggle. It's not that the muscles of his tongue, lips, and jaw are weak. The difficulty lies in the brain and how it communicates to the muscles involved in producing speech. The muscles need to move in precise ways for speech to be intelligible. And that's what she and Robbie are working on.

Next, Christina goes down the hall and meets with Pearl in her third grade classroom. While the other students are reading in small groups, she works with Pearl one on one, using the same storybook. Pearl has a speech disorder, too, but hers is called dysarthria. It causes Pearl's speech to be slurred, very soft, breathy, and slow. Here, the cause is weak muscles of the tongue, lips, palate, and jaw. So that's what Christina and Pearl work on—strengthening the muscles used to form sounds, words, and sentences, and improving Pearl's articulation.

One more student to see—4th grader Mario, who has a stutter. She's helping Mario learn to slow down his speech and control his breathing as he talks. Christina already sees improvement in his fluency.

Tomorrow she'll go to a different school, and meet with different students. But for today, her day is...Robbie, Pearl, and Mario.

## Definition

There are many kinds of speech and language disorders that can affect children. In this fact sheet, we'll talk about four major areas in which these impairments occur. These are the areas of:

**Articulation** | speech impairments where the child produces sounds incorrectly (e.g., lisp, difficulty articulating certain sounds, such as “l” or “r”);

**Fluency** | speech impairments where a child's flow of speech is disrupted by sounds, syllables, and words that are repeated, prolonged, or avoided and where there may be silent blocks or inappropriate inhalation, exhalation, or phonation patterns;

**Voice** | speech impairments where the child's voice has an abnormal quality to its pitch, resonance, or loudness; and

**Language** | language impairments where the child has problems expressing needs, ideas, or information, and/or in understanding what others say. (1)

These areas are reflected in how “speech or language impairment” is defined by the nation’s special education law, the Individuals with Disabilities Education Act, given below. IDEA is the law that makes early intervention services available to infants and toddlers with disabilities, and special education available to school-aged children with disabilities.

### **Definition of “Speech or Language Impairment” under IDEA**

The Individuals with Disabilities Education Act, or IDEA, defines the term “speech or language impairment” as follows:

“(11) Speech or language impairment means a communication disorder, such as stuttering, impaired articulation, a language impairment, or a voice impairment, that adversely affects a child’s educational performance.” [34 CFR §300.8(c)(11)]

### **Development of Speech and Language Skills in Childhood**

Speech and language skills develop in childhood according to fairly well-defined milestones (see below). Parents and other caregivers may become concerned if a child’s language seems noticeably behind (or different from) the language of same-aged peers. This may motivate parents to investigate further and, eventually, to have the child evaluated by a professional.

### **More on the Milestones of Language Development**

What are the milestones of typical speech-language development? What level of communication skill does a typical 8-month-old baby have, or a 18-month-old, or a child who’s just celebrated his or her fourth birthday? You’ll find these expertly described in *How Does Your Child Hear and Talk?*, a series of resource pages available online at the American Speech-Language-Hearing Association (ASHA):

<http://www.asha.org/public/speech/development/chart.htm>

Having the child’s hearing checked is a critical first step. The child may not have a speech or language impairment at all but, rather, a hearing impairment that is interfering with his or her development of language.

It’s important to realize that a language delay isn’t the same thing as a speech or language impairment. Language delay is a very common developmental problem—in fact, the most common, affecting 5-10% of children in preschool. (2) With language delay, children’s language is developing in the expected sequence, only at a slower rate. In contrast, speech and language disorder refers to abnormal language development. (3) Distinguishing between the two is most reliably done by a certified speech-language pathologist such as Christina, the SLP in our opening story.

### **Characteristics of Speech or Language Impairments**

The characteristics of speech or language impairments will vary depending upon the type of impairment involved. There may also be a combination of several problems.

When a child has an **articulation disorder**, he or she has difficulty making certain sounds. These sounds may be left off, added, changed, or distorted, which makes it hard for people to understand the child.

Leaving out or changing certain sounds is common when young children are learning to talk, of course. A good example of this is saying “wabbit” for “rabbit.” The incorrect articulation isn’t necessarily a cause for concern unless

it continues past the age where children are expected to produce such sounds correctly. (4) (ASHA's milestone resource pages, mentioned above, are useful here.)

**Fluency** refers to the flow of speech. A fluency disorder means that something is disrupting the rhythmic and forward flow of speech—usually, a stutter. As a result, the child's speech contains an "abnormal number of repetitions, hesitations, prolongations, or disturbances. Tension may also be seen in the face, neck, shoulders, or fists." (5)

**Voice** is the sound that's produced when air from the lungs pushes through the voice box in the throat (also called the larynx), making the vocal folds within vibrate. From there, the sound generated travels up through the spaces of the throat, nose, and mouth, and emerges as our "voice."

A voice disorder involves problems with the pitch, loudness, resonance, or quality of the voice. (6) The voice may be hoarse, raspy, or harsh. For some, it may sound quite nasal; others might seem as if they are "stuffed up." People with voice problems often notice changes in pitch, loss of voice, loss of endurance, and sometimes a sharp or dull pain associated with voice use. (7)

**Language** has to do with meanings, rather than sounds. (8) A language disorder refers to an impaired ability to understand and/or use words in context. (9) A child may have an expressive language disorder (difficulty in expressing ideas or needs), a receptive language disorder (difficulty in understanding what others are saying), or a mixed language disorder (which involves both).

Some characteristics of language disorders include:

- improper use of words and their meanings,
- inability to express ideas,
- inappropriate grammatical patterns,
- reduced vocabulary, and
- inability to follow directions. (10)

Children may hear or see a word but not be able to understand its meaning. They may have trouble getting others to understand what they are trying to communicate. These symptoms can easily be mistaken for other disabilities such as autism or learning disabilities, so it's very important to ensure that the child receives a thorough evaluation by a certified speech-language pathologist.

### **What Causes Speech and Language Disorders?**

Some causes of speech and language disorders include hearing loss, neurological disorders, brain injury, intellectual disabilities, drug abuse, physical impairments such as cleft lip or palate, and vocal abuse or misuse. Frequently, however, the cause is unknown.

### **Incidence**

Of the 6.1 million children with disabilities who received special education under IDEA in public schools in the 2005-2006 school year, more than 1.1 million were served under the category of speech or language impairment. (11) This estimate does not include children who have speech/language problems secondary to other conditions such as deafness, intellectual disability, autism, or cerebral palsy. Because many disabilities do impact the individual's ability to communicate, the actual incidence of children with speech-language impairment is undoubtedly much higher.

### **Finding Help**

Because all communication disorders carry the potential to isolate individuals from their social and educational surroundings, it is essential to provide help and support as soon as a problem is identified. While many speech and language patterns can be called “baby talk” and are part of children’s normal development, they can become problems if they are not outgrown as expected.

Therefore, it’s important to take action if you suspect that your child has a speech or language impairment (or other disability or delay). The next two sections in this fact sheet will tell you how to find this help.

### ***Help for Babies and Toddlers***

Since we begin learning communication skills in infancy, it’s not surprising that parents are often the first to notice—and worry about—problems or delays in their child’s ability to communicate or understand. Parents should know that there is a lot of help available to address concerns that their young child may be delayed or impaired in developing communication skills. Of particular note is the the ***early intervention system*** that’s available in every state.

Early intervention is a system of services designed to help infants and toddlers with disabilities (until their 3rd birthday) and their families. It’s mandated by the IDEA. Through early intervention, parents can have their young one evaluated free of charge, to identify developmental delays or disabilities, including speech and language impairments.

If a child is found to have a delay or disability, staff work with the child’s family to develop what is known as an Individualized Family Services Plan, or IFSP. The IFSP will describe the child’s unique needs as well as the services he or she will receive to address those needs. The IFSP will also emphasize the unique needs of the family, so that parents and other family members will know how to support their young child’s needs. Early intervention services may be provided on a sliding-fee basis, meaning that the costs to the family will depend upon their income.

### ***Help for School-Aged Children***

Just as IDEA requires that early intervention be made available to babies and toddlers with disabilities, it requires that ***special education and related services*** be made available free of charge to every eligible child with a disability, including preschoolers (ages 3-21). These services are specially designed to address the child’s individual needs associated with the disability—in this case, a speech or language impairment.

Many children are identified as having a speech or language impairment after they enter the public school system. A teacher may notice difficulties in a child’s speech or communication skills and refer the child for evaluation. Parents may ask to have their child evaluated. This evaluation is provided free by the public school system.

If the child is found to have a disability under IDEA—such as a speech-language impairment—school staff will work with his or her parents to develop an Individualized Education Program, or IEP. The IEP is similar to an IFSP. It describes the child’s unique needs and the services that have been designed to meet those needs. *Special education and related services are provided at no cost to parents.*

### **Educational Considerations**

Communication skills are at the heart of the education experience. Eligible students with speech or language impairments will want to take advantage of special education and related services that are available in public schools.

The types of supports and services provided can vary a great deal from student to student, just as speech-language impairments do. Special education and related services are planned and delivered **based on each student's individualized educational and developmental needs**.

Most, if not all, students with a speech or language impairment will need **speech-language pathology services**. This related service is defined by IDEA as follows:

(15) **Speech-language pathology services** includes—

- (i) Identification of children with speech or language impairments;
- (ii) Diagnosis and appraisal of specific speech or language impairments;
- (iii) Referral for medical or other professional attention necessary for the habilitation of speech or language impairments;
- (iv) Provision of speech and language services for the habilitation or prevention of communicative impairments; and
- (v) Counseling and guidance of parents, children, and teachers regarding speech and language impairments. [34 CFR §300.34(c)(15)]

Thus, in addition to diagnosing the nature of a child's speech-language difficulties, speech-language pathologists also provide:

- individual therapy for the child;
- consult with the child's teacher about the most effective ways to facilitate the child's communication in the class setting; and
- work closely with the family to develop goals and techniques for effective therapy in class and at home.

Speech and/or language therapy may continue throughout a student's school years either in the form of direct therapy or on a consultant basis.

**Assistive technology (AT)** can also be very helpful to students, especially those whose physical conditions make communication difficult. Each student's IEP team will need to consider if the student would benefit from AT such as an electronic communication system or other device. AT is often the key that helps students engage in the give and take of shared thought, complete school work, and demonstrate their learning.

### **Tips for Teachers**

—Learn as much as you can about the student's specific disability. Speech-language impairments differ considerably from one another, so it's important to know the specific impairment and how it affects the student's communication abilities.

—Recognize that you can make an enormous difference in this student's life! Find out what the student's strengths and interests are, and emphasize them. Create opportunities for success.

—If you are not part of the student's IEP team, ask for a copy of his or her IEP. The student's educational goals will be listed there, as well as the services and classroom accommodations he or she is to receive.

—Make sure that needed accommodations are provided for classwork, homework, and testing. These will help the student learn successfully.

—Consult with others (e.g., special educators, the SLP) who can help you identify strategies for teaching and supporting this student, ways to adapt the curriculum, and how to address the student's IEP goals in your classroom.

—Find out if your state or school district has materials or resources available to help educators address the learning needs of children with speech or language impairments. It's amazing how many do!

—Communicate with the student's parents. Regularly share information about how the student is doing at school and at home.

### **Tips for Parents**

—Learn the specifics of your child's speech or language impairment. The more you know, the more you can help yourself and your child.

—Be patient. Your child, like every child, has a whole lifetime to learn and grow.

—Meet with the school and develop an IEP to address your child's needs. Be your child's advocate. You know your son or daughter best, share what you know.

—Be well informed about the speech-language therapy your son or daughter is receiving. Talk with the SLP, find out how to augment and enrich the therapy at home and in other environments. Also find out what **not** to do!

—Give your child chores. Chores build confidence and ability. Keep your child's age, attention span, and abilities in mind. Break down jobs into smaller steps. Explain what to do, step by step, until the job is done. Demonstrate. Provide help when it's needed. Praise a job (or part of a job) well done.

—Listen to your child. Don't rush to fill gaps or make corrections. Conversely, don't force your child to speak. Be aware of the other ways in which communication takes place between people.

—Talk to other parents whose children have a similar speech or language impairment. Parents can share practical advice and emotional support.

—Keep in touch with your child's teachers. Offer support. Demonstrate any assistive technology your child uses and provide any information teachers will need. Find out how you can augment your child's school learning at home.

### **Readings and Articles**

We urge you to read the articles identified in the References section. Each provides detailed and expert information on speech or language impairments. You may also be interested in:

Speech-Language Impairment: How to Identify the Most Common and Least Diagnosed Disability of Childhood  
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2491683/>

### **Organizations to Consult**

#### **ASHA | American Speech-Language-Hearing Association**

Information in Spanish | Información en español. 1.800.638.8255 | [actioncenter@asha.org](mailto:actioncenter@asha.org) | [www.asha.org](http://www.asha.org)

#### **NIDCD | National Institute on Deafness and Other Communication Disorders**

1.800.241.1044 (Voice) | 1.800.241.1055 (TTY) [nidcdinfo@nidcd.nih.gov](mailto:nidcdinfo@nidcd.nih.gov) | <http://www.nidcd.nih.gov/>

#### **Cleft Palate Foundation**

1.800.242.5338 | <http://www.cleftline.org>

**Childhood Apraxia of Speech Association of North America | CASANA** <http://www.apraxia-kids.org>

**National Stuttering Foundation** 1.800.937.8888 | [info@WeStutter.org](mailto:info@WeStutter.org) | <http://www.nsastutter.org/>

**Stuttering Foundation** 1.800.992.9392 | [info@stutteringhelp.org](mailto:info@stutteringhelp.org) | <http://www.stuttersfa.org/>

## References

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7 | American Academy of Otolaryngology — Head and Neck Surgery. (n.d.). *Fact sheet: About your voice*. Online at: <http://www.entnet.org/HealthInformation/aboutVoice.cfm>

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9 | Encyclopedia of Nursing & Allied Health. (n.d.). *Language disorders*. Online at: <http://www.enotes.com/nursing-encyclopedia/language-disorders>

10 | *Ibid.*

11 | U.S. Department of Education. (2010, December). *Twenty-ninth annual report to Congress on the Implementation of the Individuals with Disabilities Education Act: 2007*. Online at: <http://www2.ed.gov/about/reports/annual/osep/2007/parts-b-c/index.html>