

# Auditory Processing Disorders

## Definitions:

**Auditory processing** - The ability of the brain to process sound signals.

**Auditory Processing Disorders (APD)** – Having difficulty understanding speech in spite of normal hearing. A breakdown in processing happens somewhere between the ear and language center in the brain. There are several causes such as oxygen deprivation at birth, fluid from ear infections, head injury, Down's syndrome, autism, brain injury and stroke. APD can affect the development of language skills, the ability to communicate effectively, attention span, behavior, motivation, reading, writing and academic success.

## Several types of auditory processing disorders:

### **Auditory Sequencing**

Hearing words, numbers, lists or instructions out of order. May hear "desk" as "decks" or "thirty-eight" as "eighty-three". May not know the direction a sound is coming from such as a passing car.

### **Auditory Memory**

Difficulty remembering what is heard. Interferes with spelling, remembering a series of words or numbers, remembering facts in lectures and verbal instructions.

### **Auditory Discrimination**

Difficulty hearing differences between similar sounds or similar words like "bad" and "bed". Causes problems with reading (decoding words) and spelling. May give odd answers to questions or follow instructions incorrectly due to misunderstanding what was heard. Appears to hear but not listen.

### **Auditory Figure Ground**

Trouble hearing sounds over background noises. Cannot tune in to what needs to be heard and tune out other sounds, such as hearing the teacher in a noisy room.

## Diagnoses which may indicate an auditory processing disorder:

### **Receptive Language Deficit**

Not understanding what is heard due to poor vocabulary skills or any of the above dysfunctions. May have poor eye contact, because great concentration goes into listening. May tire when listening, causing a short attention span during lectures.

### **Expressive Language Deficit**

Difficulty expressing thoughts. Cannot give answers in a manner that is commensurate with person's knowledge. Word-finding problem creates need for extra time to formulate verbal response. Often described as a quiet or shy person. May have temper outbursts due to frustration over inability to express needs.

## **Recommendations**

1. Have the child's ears examined by a physician for fluid, wax build-up or scar tissue.
2. Have a hearing screening done at Center for Listening & Learning or by an audiologist.
3. Have an auditory processing disorders screening done at the Center for Listening & Learning or by a speech therapist, UF Speech and Hearing Clinic or private school psychologist.
4. Obtain music-based auditory training through Center for Listening & Learning for the improvement of auditory processing - the ear and brain's abilities to listen more accurately and with more focus.
  
5. At Home & School:
  - Cue the child for listening by looking into the child's eyes and saying his or her name, touching the child's arm or shoulder, or by using a signal on which you and the child have agreed, such as "ready?" or putting a finger on one's cheek.
  - Check the child's understanding of verbal instructions by asking for a repetition of what was said. ("What did you hear me tell you?")
  - Give the child only one or two instructions at a time.
  - Give the child extra time to think before responding to verbal instructions or questions.
  - Be patient & accommodating. The child with an auditory processing deficit has some of the characteristics of a hard-of-hearing individual.
  
6. At School:
  - Provide preferential seating near the teacher and away from the doorway, noisy air ducts, computer, and other sources of noise.
  - Reduce noise allowed in the classroom or improve classroom acoustics.
  - Allow the student to study or take tests in another room or a quiet part of the classroom
  - Use a portable FM system, which will amplify the teacher's voice. Preferably use the type with speakers for the whole class. (Everyone benefits-even the teacher).
  - Let the student have a study buddy who can go over assignments and to clarify teacher information given to the class.
  - Provide older students with written lecture notes.

A student with an auditory processing disorder can qualify for speech & language services (if they are needed) and for a 504 Plan. Testing by the school psychologist may uncover other learning disabilities. There are several helpful articles for parents and teachers with more elaborate descriptions of APD and accommodation ideas at "LD Online" -[www.ldonline.org/ld\\_indepth/process\\_deficit/pro\\_deficits.html](http://www.ldonline.org/ld_indepth/process_deficit/pro_deficits.html).

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