

Auditory Processing Disorder in Children

Frequently-Asked Questions (FAQs)

What is Auditory Processing?

Auditory processing refers to the way that the brain interprets sound information from the ears. To put it simply: it is what the brain does with what the ears hear.

The brain processes many aspects of auditory information collected from the ears; things like determining where a sound is coming from, differentiating speech from other noise, recognizing the differences between sounds and remembering them and recognizing patterns, to name a few.

What is an Auditory Processing Disorder (APD)?

APD refers to problems in the perceptual processing of the auditory information in the brain. Someone with APD may have no hearing loss but have difficulty understanding spoken language in a meaningful way.

Some common signs of APD are:

- Poor listening
- Difficulty reading
- Short attention span
- Difficulty following verbal directions
- Doesn't participate in conversations
- Language delay
- Often showing frustration
- Difficulty distinguishing speech sounds; especially in a noisy environment

- Functions better in a quiet environment
- Memory problems
- Easily distracted

What causes APD?

In some cases, a head injury or chronic ear infections may be possible causes for APD; however, in many cases, there is no known cause.

How do I find out if my child has APD?

The audiologist will begin by taking a detailed case history (like a questionnaire) from the parent and also look at any supporting documents such as information from the physician, teacher, speech-language pathologist etc., if available.

Next, the audiologist will evaluate the child's hearing and middle ear function. The audiologist will then administer some APD behavioral tests in order to assess performance on various auditory tasks in different listening conditions.

Some common APD tests that are used include:

- Auditory pattern ordering: reproducing the pattern heard
- Auditory closure: filling in the gaps that are missing based on knowledge of the language
- Binaural separation: detecting the appropriate message while ignoring other competing voices or noise
- Binaural integration: ability to fuse or integrate information from both ears



- Temporal gap detection: detecting the different in emphasis i.e. 'the quarter- back threw the ball' vs. 'I want my quarter back'
- Auditory figure ground: hearing in noise

Other tests that do not require the child to respond may also be done. These tests can measure how the inner ear and the hearing nerve are working.

The entire APD evaluation may take up to 3 hours including some breaks for the child. These tests will not hurt the child in any way.

What if an APD is diagnosed?

The audiologist will review the test results with the parent/caregiver and provide a detailed report with recommendations based on the specific findings.

Some common recommendations for children with APD are:

- Reduce external visual and auditory distractions as much as possible
- Preferential seating in the classroom near the teacher and away from auditory and visual distractions and noise sources like heating and cooling systems
- Avoid asking the child to listen and write at the same time. Sometimes a buddy can share notes with the child or the teacher may provide the child with notes
- Encourage the child to ask questions for clarification
- To improve the listening situation, the audiologist may recommend the use of a device that transmits the teacher's voice directly to the child's ear through a headset. This is called an FM system.
- Use visual aids and write instructions to supplement spoken information

- Use simple, brief directions
- Speak slowly and clearly but not exaggerate speech
- Recognize fatigue and give breaks when needed

More Information:

For further information about APD, or to schedule an appointment, contact an audiologist.

To find an audiologist or speech-language pathologist in your area visit the SAC website at www.sac-oac.ca.