

## **Auditory Processing Disorder Information and Facts**

**Auditory Processing Disorder (APD) is a hidden abnormality in the auditory neurological system that affects the brain's ability to turn sound into usable information.** APD is treatable but it often gets overlooked and is frequently misunderstood. APD is a common underlying cause of many listening and learning challenges.

**Children with APD will pass a hearing test** but they may have difficulty distinguishing similar sounding speech sounds and have trouble understanding and remembering what they hear. They are also likely to have trouble focusing when there are competing auditory distractions, have trouble understanding when there are multiple talkers, and have difficulty keeping up with conversations and ongoing speech. This often leads to academic problems, especially with reading and spelling, and it can affect their socialization, and self-esteem.

### **Important Facts about APD:**

- **At least 5% of school-age children have some type of auditory processing disorder.**
- **In children with learning difficulties the prevalence of APD is approximately 43%.**
- **APD is often mistaken for ADHD or may coexist with ADHD.** Many children end up on unnecessary ADHD medication that will not help them process spoken language.
- **There are different types of APD** that can cause a child's auditory system to process speech inaccurately or inconsistently so treatment must be individualized.
- **Research has shown that 70% of children with dyslexia have an underlying auditory processing disorder (APD).** While weak auditory processing is at the core of most reading struggles, treatment must be based on each child's profile. Most often, there may be abnormal neural representation of sound in the brain, problems perceiving brief timing cues and rapid frequency changes (needed to distinguish sounds and hear the components of blends), or the ears may not work well as a team (poor binaural integration).
  - Inconsistent neural responses to sound / Poor consistency of the auditory brainstem response to speech stimuli (Hornickel et al. 2012)
  - Processing of rapid frequency and timing characteristics of phonemes (Burns 2013)
  - Impaired ability to judge the temporal order of rapid auditory sequences (Abrams, Nichol, Zecker and Kraus 2006)
  - Impaired extraction of speech rhythm (Leong and Goswami 2014)
  - Slow auditory sampling affecting syllable perception (Goswami 2011)
  - Speech perception in noise deficits (Ziegler et All. 2009)
  - Poor performance on dichotic tests / binaural integration (Moncrief and Black 2008)

If a coexisting auditory processing disorder is not identified and treated, it makes it much harder for a child to make progress with dyslexia therapy.

- **A lazy ear is a common type of APD that can usually be corrected in just four 1-hour treatment sessions.** Lazy ear causes a child to process speech in a distorted way due to poor synchrony from the dominant pathway overwhelming the weaker pathway.

- **Children with a history of ear infections are at risk for spatial processing disorder, a type of APD affecting the ability to process spatial/direction cues.** This can typically be completely remediated in 10-12 weeks.
- **Only an Audiologist can diagnose or rule out APD** by performing a battery of tests to evaluate the central auditory nervous system.
- **A Speech-Language evaluation cannot rule out the need for an APD evaluation. Research indicates that 39% of children with APD passed all the language tests.**
- **A comprehensive psychoeducational evaluation does NOT test for APD.** Parents and some professionals may not realize that a psychoeducational evaluation cannot rule out the need for an APD evaluation because the skills measured are completely different.

Auditory Processing Center specializes in auditory processing evaluations and deficit-specific therapy to help individuals overcome the processing deficits that interfere with comprehension and communication. Children as young as 5 years old can have a full auditory processing evaluation. We also see many adults for these services. For more information call 601-488-4189 or visit [www.auditorycenter.com](http://www.auditorycenter.com).