



## **Auditory Processing Disorder Resource Guide**

### **What is auditory processing disorder?**

According to the Cleveland Clinic, auditory processing disorder, or central auditory processing disorder, is a condition where your brain can't understand or interpret auditory signals the way it should. People with APD can hear (although they may have some blocked hearing due to fluid or possibly some hearing deficiencies of higher or lower tones), but they have difficulty understanding certain sounds. There is not a silver bullet cure, but treatment can help people manage the condition. APD often starts in childhood. Difficulty understanding speech makes it hard for one to understand what people are saying. It can also be acquired due to certain diseases, growing older, traumatic brain injury, or stroke.

#### **Other causes (according to the Cleveland Clinic):**

- Central nervous system disorders
- Genetics
- Frequent ear infections
- Low birth weight or premature birth

- Genetics

**Q: Who can diagnose auditory processing disorder/central auditory processing disorder?**

**A:**

- Only a trained audiologist or communications specialist can diagnose APD.
- Reading specialists and dyslexia therapists may pick up on warning signs.
- Licensed psychologists are able to diagnose learning disabilities, behavioral/emotional issues, and processing difficulties.

**Q: How common is APD?**

**A:**

- *One study said 1-2 out of 1000 children have APD.*
- *23-76% of adults age 55 and older*

**Q: Are there different types of APD?**

*A: No, but there are different areas of weakness, and it impacts people in various ways. \*So diagnosis/evaluation is so helpful, so then we can match interventions and techniques to target specific weaknesses!*

**4 areas:**

- Auditory discrimination: Noticing slight differences of sounds, hearing sounds within words.
- Auditory figure-ground: pick out specific words in a noisy or loud background
- Auditory memory: recall what was said, phone numbers, song lyrics
- Auditory sequencing: understanding and recalling sounds and words within order

**Recommended treatments, interventions, and therapies:**

- Speech/language therapy
- OT/PT
- Sensory processing intervention
- Sound or listening therapy, such as Sound Therapy International (available through a trained provider, such as FaithBerens.com or Equipping Minds.com)
- Art therapy for expressive language, communication, anxiety, fine and gross motor, etc.
- Equine therapy for self-regulation, confidence, balance, following multi-step directions
- Activities that force/demand brain integration-such as music, swimming, or dance and martial arts
- Helping kids learn how to self-regulate
- Teaching memory strategies and compensatory skills
- Lindamood Bell LIPS program (in clinic)
- FastForWord (computer)
- Orton-Gillingham-based reading/spelling intervention (structured literacy that is multi-sensory, systematic and explicit)

- Teach on a “higher plane” by teaching meta-cognition and meta-linguistic strategies: According to Dr. Bellis, A lot more goes into auditory processing than just being able to hear and discriminate acoustic signals. Bottom-up processing factors, such as hearing loss, (and ear infections tinnitus), certainly affect our ability to understand. Similarly, top-down factors relate to thinking (cognitive), language and planning effect how we understand. \*Consider implementing a cognitive/language-based program such as Equipping Minds, [www.equippingminds.com](http://www.equippingminds.com) or NILD therapy.
- [www.hopkinsallchildren.org](http://www.hopkinsallchildren.org), suggest listening devices, accommodations, and art and music therapy

### **Tips to Teach Active Listening:**

- 1. Sit up or stand up straight so your body is alert.**
- 2. Lean the upper body forward (“lean in”); incline the ear or head slightly toward the speaker (preferably the right ear if no hearing loss in the right side).**
- 3. Watch while listening; keep eyes fixed on the speaker.**
- 4. Eliminate unnecessary movement (finger drumming, tapping, leg bouncing, foot swinging, chair rocking).**
- 5. Avoid other tasks (scrolling on phone, watching TV, reading a book or magazine).**
- 6. Forcefully bring back your attention whenever the mind begins to wander. (Discreetly under the table or behind your back, do finger exercises, bringing each tip of finger to your thumb one at a time.)**

### **Accommodations:**

- **Extra time for processing**
- **Visual charts and checklists**
- **Use of graphic organizers for reading and math problem solving**
  - **Anchor charts for steps in a process**
- **Use of a calculator, number line, and manipulatives for math**
  - **Teacher read aloud directions**
  - **Rephrasing or paraphrasing information**
  - **Notes or handouts ahead of time**

## Tips for teaching compensatory strategies:

- Position yourself where you can see the speaker
- Teach students to take responsibility for their own listening
- Train students to self-advocate, such as asking for more time, asking for someone to repeat what they said, or saying, *“Just a moment. That’s a really good thought or question; let me think about it.”*
- Teach students to “talk out” steps in a process. (Linking with movement or color-coding may help to pair with this.)
- Teach students what types of information or keywords to listen for in a lecture or class.
- Teach students explicitly how to draw conclusions and make inferences.
- Work with students on solving problems, setting goals, and making action plans.
- Teach students to keep a journal and self-reflect
- Directly teach students keywords for relationships, such as if/then, causal words (because, since, therefore), tag words/sequence words, caveat or warning words such as however and but should be particularly stressed.
- Teach students to read deeper and use context clues.
- Teach students to rephrase information and summarize in their own words.
- Teach and use the Cornell note-taking strategy/two-column notes.
- Teach students memory techniques such as chunking, putting things to music or rhyme or rhythm, and draw a quick sketch or picture.
- Teach students to choose activities and careers wisely. Weigh and examine the demands and necessary prerequisites. Help them determine and set realistic goals and to plan what types of accommodations and support may be needed for that particular course, activity, goal, etc.