<https://www.additudemag.com/auditory-processing-disorder>

**What Is Auditory Processing Disorder?**

**Up to twelve percent of children have diagnosed or undiagnosed auditory processing disorder, a condition that inhibits the brain’s ability to translate and process sounds. Learn more about common signs and symptoms.**

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Auditory processing disorder (APD), also known as Central Auditory Processing Disorder (CAPD), is a condition that impacts the brain’s ability to filter and interpret sounds. People with APD can hear, but have a hard time receiving, organizing, and processing auditory information. APD often emerges in childhood.

While APD isn’t too well known, it is estimated that 7 percent of children have some type of auditory processing difficulty. Do everyday instructions, requests, and questions seem to bounce off your child? Like he or she is living in a bubble that is impenetrable by oral directions? If your child responds most of the time with a blank stare or “Wait, what?” then you know what we’re talking about.

Or perhaps you’ve noticed this yourself — that the world feels “garbled,” like you’re listening to a cell phone call with the signal cutting in and out?

APD is a diagnosis that encapsulates three areas of disability. “The first problem occurs in the brain’s analysis of the auditory signal,” says Lois Kam Heymann, M.A., CCC-SLP. “The ears hear normally and send information through the auditory pathways to the central auditory nervous system, but as the signal travels, the brain has trouble discriminating between the acoustic characteristics of the sound received. It doesn’t recognize how an ‘S’ sound is different form a “B” sound, for example.

“The second problem occurs during analysis of the linguistic-phonemic auditory signal. The brain has trouble blending the sounds of the letters to understand a word, and store its meaning. The sound of C-A-T does not translate to a type of animal, for example.

“The third problem involves processing the meaning of language. This is how we associate the sound of the word cat with an image of the furry thing on the living room floor.” When one of these processes is interrupted for a person with APD, it causes a disconnect between what was said, and what was understood.

**Symptoms of APD**

But what does APD look like, exactly? At its most general, APD is a glitch in the brain’s ability to filter and process sounds. A person with APD doesn’t have difficulty hearing necessarily. Rather, her brain perceives sounds incorrectly, affecting her ability to distinguish between similar sounds (da and ga, for example). Some common signs of APD, according to  are:

* Saying “Huh?” and “What?” often
* Difficulty following multi-step directions
* Difficulty hearing in noisy environments
* Mishearing sounds or words
* Delayed language development
* Distracted and inattentive behavior
* Potentially poor social skills
* Difficulty learning to read
* Poor spelling
* Seems to be missing information

Some children with APD have trouble screening out background noise, so they pick up on and are distracted by bits of surrounding sounds. The echo in a gymnasium or the hum of an air conditioner interferes with the conversation or lesson at hand. It’s like listening to the radio with interference garbling the reception.

A child with the disorder typically tries so hard to understand what’s being said that she forgets parts of the conversation or doesn’t pick up on the nuances or subtleties of the words. This can cause innumerable difficulties in school, at home, and in day-to-day life as the child’s ability to listen, remember, and respond to what is being said is compromised.

**Types of APD**

Jack Katz, M.D., a pioneer in the field of auditory processing disorder, says that APD comprises three distinct conditions that often overlap but may occur in isolation.

1. **Sound discrimination problems**. When children learn to talk, they mimic the sounds they hear to produce speech. A person with APD may not speak clearly, using similar (“dat” instead of “that”; “free” instead of “three”) rather than exact sounds long after peers have corrected themselves. Typically, people with faulty sound discrimination will run words together or drop word endings and un-emphasized syllables when speaking. Reading and spelling may also be affected.
2. **Auditory memory problems**. This part of the disorder makes it difficult for a child to memorize numbers and facts, and also affects his reading and language skills. Children with auditory memory problems typically take longer to learn their telephone numbers and addresses, and have difficulty remembering basic math facts. Verbal instructions and lists are similarly tough to retain.
3. **Language processing problems.** This component of APD is the most troublesome. It affects a child’s abilities to understand what’s being asked of him and to socialize with peers. A child with this cognitive glitch has trouble taking oral tests and becomes confused when reading and telling stories with lots of characters and events. He will often pass up a chance to hold a conversation because of the time it takes to process words being spoken and to formulate responses.

**What Does Auditory Processing Disorder Look Like in Adults?People with auditory processing disorder struggle to understand and interpret the world thanks to problems in the way their brains process sound. Though most adults with APD are diagnosed in childhood and adolescence, undetected symptoms could explain your difficulties comprehending language and communicating. Read on to find out.**

**Auditory Processing Disorder in Adults**

“Garbled.” That’s how many adults describe communicating and living with auditory processing disorder (APD). APD makes it difficult to understand and interpret information presented orally. [Auditory processing disorder in adults](https://www.additudemag.com/adhd/article/8666.html) may manifest as poor listening skills, poor reading comprehension, or miscommunication that causes trouble with coworkers, partners, family and friends. For many people, living with APD is “like trying to listen on a cell phone with the signal cutting in and out,” according to Lois Kam Heymann, M.A., CCC-SLP.

“There’s no tiny speaker inside your brain that relays messages from the outside,” explains neurologist Martin Kutscher, M.D., author of [*ADHD – Living without Brakes.*](https://www.amazon.com/gp/product/B0037CF6MU/ref%3Das_li_qf_asin_il_tl?ie=UTF8&tag=nhm00-20&creative=9325&linkCode=as2&creativeASIN=B0037CF6MU&linkId=0a802bd25929f5d514259e7ac7eca88e) “What you think you ‘hear’ is a virtual-reality recreation of sounds that stopped at your eardrum and, from there on, exist as soundless electrical impulses.”

Here’s what happens in an exchange between speaker and listener:

* The speaker’s vocal cords produce a sequence of vibrations that travel invisibly through the air and land on the recipient’s eardrums.
* The listener’s eardrums vibrate, causing movement of three tiny bones that, in turn, stimulate the cochlear nerve. This is essentially where “sound” ends.
* From this point, what the listener thinks he “hears” is actually a series of silent electrical stimuli carried by neuronal wires.

“The brain processes these electrical impulses into sounds, then into words, and then into meaningful sentences and ideas,” Kutscher says. “Most of us do it effortlessly. Some adults have problems in converting these electrical neuronal impulses into meaning. We call these problems Central Auditory Processing Disorders.”

**Auditory Processing Disorder Symptoms in Adults at Home**

“What?” and “Huh?” are your most common responses. This, and other common manifestations of APD may be apparent for adults at home:

* You listen to the TV at full volume, but still have difficulty understanding what’s going on.
* Despite wanting to listen to your partner’s requests, you are always in trouble for not paying attention when she asks you to do something.
* You have difficulty finding your way around town.
* When you leave your grocery list at home, you’re mystified as to what was on it.
* After meeting people at a cocktail party, you can’t remember any of their names.
* When you’re out with friends at a noisy bar, you can’t comprehend what’s going on.
* In conversations, you always get the feeling you’re missing something.
* In elementary school, you lagged behind other kids in language arts, even though you were great at math.

**Auditory Processing Disorder Symptoms at Work**

These or similar manifestations of APD be may be apparent at work:

* You have difficulty remembering and following multi-step directions.
* When co-workers speak to you in busy places, like the cafeteria, you have trouble clearly understanding.
* Sometimes you make “silly” or “careless” mistakes, like adding instead of subtracting. Random sounds may break your concentration so that you lose your place and skip a task.
* Often you don’t notice your phone is ringing and miss important calls. Poor noise suppression and sound localization skills can cause important voices or signals to “disappear” in the background.
* You have trouble discerning if your boss is angry with you when she calls you in for a meeting. A part of the brain that registers tone can be inefficient.
* Spell-check is your best friend.

**Children and adults alike may struggle with the comprehension, communication, and focus challenges inherent in auditory processing disorder. Treatments and therapies vary as much as symptoms do, but they can all begin with this overview of options.**

**Treating APD with Lifestyle Changes**

Since auditory processing difficulties vary based on surroundings and development, its therapies vary by setting and age as well. The following lifestyle changes can make a difference for children and adults with APD.

At school, teachers can:

* Improve classroom acoustics. APD makes it hard to screen out background noise. Adding bookshelves, carpeting, and drapes to a classroom absorbs the extra sound.
* Seat children near the front of the class, away from an open door or a pencil sharpener or other classroom items that make noise, like fans or fish tanks.
* Provide attention prompts. Periodically touch her shoulder to remind her to focus.
* Streamline communication. Establish eye contact and insert pauses to allow time for sorting information. Ask questions to see if the child is following the lesson, and rephrase material that has been misunderstood.
* Use visual aids. Jot instructions or key words on the board, and provide simple written or pictorial outlines.
* Build in breaks. Children with CAPD have to work harder than do other kids to pay attention, and may need more frequent downtime to consolidate information.
* Use a microphone and headset. The teacher’s voice is amplified through a microphone connected to the student’s headset. This helps to focus attention on the teacher.
* Ask children, “What are you going to do? What did I ask you to do?” This will give teachers a chance to determine if children have misheard directions.

At home, family members of adults with APD can:

* Eliminate distracting noises (turn off the TV or computer) before speaking with your partner.
* Touch your partner on the arm or shoulder before speaking, allowing him time to shift his focus from what he was doing to the conversation you are having.
* Ask your partner to repeat what you’ve said, to make sure it was understood.
* Speak concisely, eliminating superfluous detail.
* Use relaxation techniques to clear your mind before important conversations.
* For some topics, e-mail works best.

Support groups – both online and in person – can help parents and adults connect with people who are experiencing similar difficulties, and give ideas of treatment or accommodations that have helped.