



Central Auditory Processing Disorder: A Personal Perspective

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"What is Central Auditory Processing Disorder (CAPD)?" "Do I really have Attention-Deficit/Hyperactivity Disorder (ADHD)?" These were questions that I asked the hearing specialist that my primary care doctor referred me to. Although I was relieved to find out I was not losing my hearing, I still could not understand why I was having so much difficulty hearing sometimes and, other times, had no problem at all. I was not even hyperactive or impulsive and there had never been a behavior problem in my childhood years.

CAPD is defined as a disorder in which the individual "has difficulty processing and interpreting auditory stimuli in the absence of a peripheral hearing loss, usually resulting from a problem in the brainstem or cerebral cortex" (Mosby's Medical, Nursing, and Allied Health Dictionary, 1998; p. 1966). The American Speech and Hearing Association (ASHA) CAPD Task Force outlined distinguishing features of CAPD. CAPD is characterized by problems in one or more of the following areas: sound localization and lateralization (the ability to recognize where a sound is coming from), auditory discrimination (the ability to differentiate between different speech sounds), auditory pattern recognition (the ability to determine similarities and differences in sound patterns), temporal aspects of audition (the ability to sequence and integrate sounds into words and the ability to perceive sounds as separate when they quickly follow one another), auditory performance decrements with competing sounds (the ability to perceive speech or sound when other sounds are present), and auditory performance with degraded acoustic signals (the ability to perceive missing sound signals) (ASHA, 1996; Young, n.d.). Chermak and Musiek (1997) estimate that CAPD affects as many as three to five percent of the population, which is even more common than the incidence of hearing loss.

People with CAPD may hear and function normally in environments in which there is a minimum of background noise or other competing sounds. (It is important to note that CAPD may also be present in individuals who have other types of hearing loss, which can complicate the treatment process.) However, as environmental noise increases, the individual's ability to perceive, comprehend, and process sound decreases. In such situations, children and adults with CAPD may exhibit many signs and symptoms often associated with hearing or attention problems. Examples of these signs and symptoms include:

- inability to hear certain frequencies of sound
- asking for repetition of what is said
- often misunderstanding what is said
- confusing similarly sounding words
- loud talking
- turning the television up too loudly (as if they cannot understand)
- inattentiveness
- difficulty following directions
- distractibility, and
- inappropriate responses to questions during conversation.

In fact, there seems to be some overlap between the CAPD and ADHD diagnoses, and many such individuals are first diagnosed with ADHD or learning problems (Austin, 2002; Riccio and Hynd, 1996; Riccio, et al. 1994; Burd and Fischer 1986; Gascon, et al., 1986).

Thinking back on my experiences while growing up and as a college student, it is rather amazing that my CAPD was even diagnosed at all. Although I had failed many of the required elementary school hearing screenings, which were often given with headphones in the corner of a classroom or auditorium with three or so other children waiting

in tow, the hearing specialists who conducted my follow-up assessments in quiet offices with the sound-proof booths would always inform me that I had perfect hearing. I first became aware of my auditory processing deficits during my first year of college when my misunderstanding of oral instructions resulted in a significant grade reduction and an ensuing heated discussion with one of my professors. In the course of this discussion, it was pointed out to me that I was the only one in the class who misunderstood these instructions, which led my professor and me to conclude that I required a hearing evaluation. I received an initial hearing screening with headphones in my primary care doctor's office, which happened to be rather noisy and bustling with people and activity that particular day. The doctor's office screening showed evidence of significant hearing deficits, so I was referred to a specialist for further evaluation, resulting in being diagnosed with CAPD and ADHD. While I meet the criteria for ADHD, many of these symptoms (i.e. often does not seem to listen when spoken to, is easily distracted by extraneous stimuli, difficulty following instructions, etc.) are better explained by the auditory processing disorder. At this time, it is difficult to separate these two disorders.

Children with CAPD tend to have difficulty with phonemic and phonological awareness, skills considered essential in learning to read. If such students do not receive appropriate intervention, reading difficulties and the resulting frustration seriously hinder their ability to learn and function. Reading ability is highly correlated with academic achievement. Academic achievement very often translates into better employment opportunities, higher income, and a better quality of life. Without appropriate early intervention, children who have CAPD could be at risk for a whole host of life problems.

I was able to compensate for such deficits in the elementary grades because of the abundance of visual cues and the repetition and redundancy inherent in the elementary curriculum. Also, I attended primarily small to medium-sized neighborhood elementary schools, which provided opportunities for individual attention. However, I started struggling academically when I moved from my small neighborhood elementary school to a large urban high school due to the noise, large classes, and primarily lecture style of instruction. My academic performance became very inconsistent. Sometimes I obtained As, other time Ds. Inconsistent academic performance is common in individuals who have CAPD.

CAPD can cause some social problems as well. While I was growing up sometimes people would think I was ignoring them or being stubborn, oppositional, or snobbish when I did not respond to them. I was often characterized as being "spacey." My mother stated that at times it seemed I would become so involved in an activity that I would "tune out" everything else. I have a tendency to speak too loudly at restaurants, parties, and other places that have a significant amount of background noise, assuming everyone else is having as much trouble hearing as I am.

My personal experiences with CAPD, along with my work at my university's Student Disability Services Office, sparked my interest in pursuing a career in the field of audiology and speech pathology. In my senior year at the university, I applied for admittance to a speech language pathology program. As my graduation date started to approach, I started to become concerned about how having CAPD might affect my ability to function as a speech pathologist. I consulted with a professor in my program about this, sought out psychological testing to assess my auditory processing ability, and spent a couple days shadowing speech language professionals to help me obtain a clearer picture of what my strengths and weaknesses would be in this professional role. Eventually, I came to the conclusion that, given my particular combination of deficits, it would be exceedingly difficult for me to be successful in this line of work and I started to explore other career options. Later, I obtained a Master of Science degree in rehabilitation counseling, an area of counseling which focuses upon assisting individuals who have disabilities develop and maximize their career and life functioning. I worked several years in the counseling field, primarily with adult clients. After some years of working with clients who were diagnosed as having severe psychiatric and other disorders, I developed a desire to be involved on the prevention/early intervention side of treatment. I applied to the counseling program at the University of Memphis and I am currently working on my doctorate in school counseling.

In my present life, I do not think very much about having CAPD. The strategies that I employ to compensate for this disorder have become so ingrained over the years that most people are not aware that I am affected by CAPD. Simply being aware of this disorder enables me to anticipate potentially problematic situations and I can plan and adjust accordingly. I tend to be visually attuned, and since the majority of communication tends to be visual, CAPD has not really affected my functioning socially or vocationally. I always look at people when they speak and I often ask people to write out important information. Typically, I will repeat or paraphrase what is spoken to ensure I have understood what is being said. When given instruction, I usually check my understanding with co-workers or others

who happen to be around. Misunderstandings and miscommunications can occur on occasion, more so with people who do not know me very well and who are not aware that I sometimes have difficulty hearing.

I generally do not inform people I work or interact with about my CAPD unless I see a pressing need to do so. For the most part, I am able to function well enough without assistance. Many people-hearing and other professionals included-are not familiar with CAPD and they would not understand without a lengthy, involved explanation. I have found it easier to state that I have some problems hearing. There have been times however after informing a person about my hearing difficulty, where I am asked why I do not wear a hearing aid. When people ask this, I have to explain that hearing aids do not help with this type of problem.

I think sometimes I compensate so well for my CAPD that even people who know me well such as family and close friends forget that I have CAPD. My husband sometimes tries to talk with me from another room or while the television or faucet is on and when this happens, he becomes frustrated when he has to repeat what he has said. I frequently rely on family and friends to fill me in on the bits and pieces that I miss while attending to movies, television, and stand-up comedy. Because of the effects of missing tidbits of information over time, my fund of general knowledge is not very large, especially for someone with my education and life experience. This makes me pretty useless as a teammate in Trivial Pursuit or other games that depend heavily on knowledge of popular culture. However, what I lack in this area I more than make up for in creativity and humor, aided and abetted, in part, by my CAPD. Sometimes I misunderstand things that evoke laughter. For example, a friend I met when I moved to the South would often exclaim "Foot, feet, and toes!" when she was frustrated or upset. With my CAPD, I thought I heard "Foot feeding toads!"

Although CAPD changed my vocational course, it does not adversely affect my life. My friend and I continue to laugh uproariously at the notion of there being a frog somewhere that feeds off of some poor unfortunate's phalanges.

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