

Central Auditory Processing Disorder (CAPD)

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Central auditory processing disorder is neurological defect causing hearing problem that affects children mostly. There is communication gap because of incomplete receiving, remembering and understanding of information. More precisely, the problem arises when children are not able to recognize the slight difference in sounds even when the sounds are loud and clear. These are signs of central **CAPD**, a **learning disability** that impacts the brain's ability to filter and interpret sounds. Children with **CAPD** have a hard time receiving, organizing, and using auditory information. They're able to hear, but fall short at listening.

Signs and symptoms of **CAPD** may include one or more of the following behavioral characteristics: Difficulty localizing sound. Difficulty understanding spoken language in competing messages, in noisy backgrounds, in reverberant environments, or when presented rapidly..

Regrettably there is no generally accepted cure or therapy for CAPD that works well across all children. Each treatment plan is personalized and adjusted based on the patients' capabilities.

The areas of the brain responsible for auditory processing abilities grow and develop until around age 13, when the auditory system is considered to be more mature and adult-like. Due to this, it is possible that a child who was diagnosed with APD before age 13 could essentially "grow out" of it. Children with APD struggle to understand speech signals in the presence of noise. One possible reason for poor speech perception is a deficit in auditory stream segregation.

The spatial features of competing sounds affect the segregation of target sounds. Stream segregation and extracting speech from competing noise is modulated cognitively by top-down mechanisms such as working memory.

One possible reason for poor speech perception in children with APD is that they cannot benefit from spatial cues to segregate talkers from competing sounds. The present study showed the possible influence of working memory capacity on spatial cues and auditory stream segregation in children with APD

Treating APD with Lifestyle Changes

1. Improve classroom acoustics.
2. 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.
3. Provide attention prompts.
4. Streamline communication.
5. Use visual aids.
6. Build in breaks.

Individuals with APD require comprehensive assessment and an intervention program specifically for each individual's needs. Furthermore, clinicians should manage these children's specific behaviors and work on their weaknesses. Lower working memory capacity in children with APD may be the possible cause of the inability to segregate and group incoming information.