

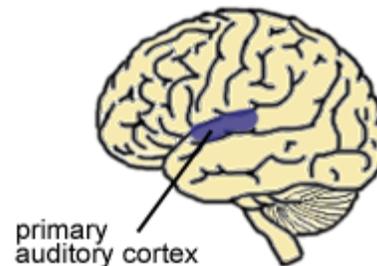
WHAT IS A CENTRAL AUDITORY PROCESSING DISORDER?

What is Central Auditory Processing?

Central Auditory Processing (CAP) refers to a group of skills which we use to interpret and store what we have heard. CAP skills typically develop in the first five years of life along with receptive and expressive language. Children who have a delay or disruption in the development of these skills may have Central Auditory Processing Disorders (CAPD).

Diagnosing CAPD

The diagnosis of CAPD begins with an audiological evaluation. From there, the audiologist will administer a battery of specialized word, number and pitch recognition tests designed to measure the child's auditory performance. These tests are designed to simulate the stress on the child's auditory system during daily listening activities. Specific weakness areas will be identified and recommendations will be made to assist parents and teachers to create an acoustic environment more conducive to improving listening skills.



What are the Symptoms?

- **Auditory Discrimination Deficit:** Child will have trouble understanding verbal directions; will make errors in repeating words and directions; will substitute words, numbers, etc. Will have difficulty learning sounds for letters, letter names, etc. May have trouble learning names of people, places and things.
- **Auditory Memory Deficit:** Will have trouble recalling names of things, letters, words, numbers, etc. May not consistently remember addresses, phone numbers, etc. from day to day. May not remember how to pronounce letters and words.
- **Auditory Association Deficit:** May have trouble learning sounds of letters and letter names, individual words with categories, etc. May not be able to follow verbal directions, conceptualize the concepts of words, numbers, etc. May have difficulty classifying objects and ideas presented verbally.
- **Auditory - Visual Association Deficit:** This skill requires functioning of lower level skills plus relating a visual symbol with a sound for that symbol. This skill is the essence of word recognition. Subjects with this deficit will have trouble recognizing and naming letters, words, numbers, etc. May be able to write what is read, speak what is heard, but will have trouble speaking what is read, or writing what is heard. This manifests as note taking problems in school.

Other symptoms include:

- Says "huh" or "what" frequently
- Inconsistent responses to auditory stimuli
- Often misunderstands what is said
- Requests that information be repeated
- Poor auditory attention
- Exhibits extreme distractibility
- Difficulty following oral instructions
- Difficulty listening in the presence of background noise
- Difficulty with phonics and speech sound discrimination
- Poor auditory memory span

- Poor sequencing skills
- Poor receptive and expressive language skills
- Slow or delayed response to verbal requests and instructions
- Reading, spelling and other academic problems
- Learns poorly through the auditory channel
- Exhibits behavior problems

What are the Subtypes of CAPD? (The following checklist is drawn from a history questionnaire composed by Judith W. Paton, M. A., Audiologist, and Bonnie G. Rattner, Ed. D, Speech/Language Pathologist.)

1. "Tolerance/Fading Memory" subtype
 - a. Often seems to "ignore" people, especially if engrossed.
 - b. Hears less well, or is less attentive/productive, in ordinarily busy surroundings.
 - c. Difficulty following a series of spoken directions.
 - d. Unusually forgetful of information previously memorized (such as multiplication tables, correct spelling), or of household or school routines and responsibilities, despite frequent reminders.
2. "Decoding" subtype
 - a. Difficulty with phonics (sounding out words) approach to reading.
 - b. Confuses similar-sounding words; may learn words wrong.
 - c. Poor speller:
 - i. errors phonetically correct (e.g. "littul" for little)
 - ii. errors seem random (wrong sounds, sounds/syllables missing/added)
 - iii. Problems with speech clarity or articulation, or with grammar, now or in the past.
3. "Integration" subtypes
 - a. Marked difficulty reading or writing efficiently, despite knowledge of phonics.
 - b. Needs to (or should) ask many extra questions to clarify task before starting; "doesn't get the picture."
 - c. Interprets words too literally, becoming confused or suffering hurt feelings.
 - d. Poor "communicator" — fails to explain, apologize, negotiate, defend.
 - e. Speaks or writes "telegraphically" — omits facts or switches topic, so that audience cannot follow train of thought.
4. "Prosodic" subtype (often seen with NLD or non-verbal learning disability)
 - a. Absorbs details and facts, but misses the "big picture" — cannot prioritize or summarize information.
 - b. Insensitive to tone of voice; may misjudge speaker's mood or be unintentionally tactless.
 - c. Problems with cause-and-effect reasoning; difficulty surmising the unspoken rules of conversation, play, and other situations.

Recommendations:

- Seat the child near the source of instruction to allow the speaker to talk directly to the child. This helps reduce the interference of background noise.
- Get the student's full attention prior to giving instructions using a tactile prompt such as a pat on the hand, calling the child's name, or establishing eye contact.
- Reduce both auditory and visual distractions which compete for the child's attention. Other conversation and movement are the worst of these distractions.
- Speak distinctly, using as few words as possible, as too much talking can act as a distraction to the child.
- Simplify instruction using one-step directions. Write down key words or assignments for students who can read.
- Have the student re-verbalize instruction, directions or conversations. This helps the student recall what was heard, and allows the teacher to monitor comprehension.
- Structure the environment as much as possible, using a consistent routine.
- A buddy system can be helpful, especially with older students, to check notes and assignments.
- Visual aids provide good reinforcement for students with weak auditory skills.
- Breaks during the day may be necessary for the child to relax. Tension and fatigue can occur when children are constantly straining to attend and comprehend what is going on around them.
- Amplification systems, both personal and free field, allow students to hear the teacher more clearly with less interference from background sounds.
- It is most important to allow the student to experience as much success as possible to promote a good self concept. When children are frustrated with themselves as well as having academic difficulties, it is hard to stimulate interest to build skills that will help restore confidence.

Information taken from: <http://www.aos-jax.com>