

Speech Pathology

Reading out loud...Spelling...
Following instructions...
Not using complete sentences...

In the last edition of Woman and Child we presented a case about a four year old girl called Alexandra who had marked difficulties with her ability to understand what was being said. Therapy focused on teaching her the meaning of several concepts and then presenting those concepts in spoken instructions.

Today we are discussing an eight and a half year old girl called Jan whose mother is concerned about a number of things including her:-

- difficulty with understanding complex information (e.g. tends to get messages or stories mixed up or confused)
- difficulty with finding the correct word to say what she wants to say
- difficulty with formulating complete sentences
- difficulty with reading out aloud and spelling

ASSESSMENT confirmed that Jan had difficulties in all the above areas when compared to other children her age. During testing it became evident that Jan also appeared to be having some significant difficulties with remembering spoken information that I had just said (auditory short-term memory difficulties). Auditory short-term memory is a part of Central Auditory Processing which, if impaired, can impact on performance at school.

What are Central Auditory Processing (C.A.P) Difficulties?

This term refers to a breakdown in the auditory system at a point somewhere along the nerve pathways that take auditory information from the inner ear to the brain.

Sounds enter our ear through the ear canal (outer ear). These sounds are amplified in the middle ear and then in the inner ear are changed into electrical impulses which are sent along the nerve pathways up to the brain. These nerve pathways go from the inner ear to the brainstem (base of the brain) and then up to the cortex of the brain. By the time the nerve impulses reach the cortex of the brain, we have been able to attach **meaning** onto the sounds we have heard.

Central Auditory Processing allows us to make sense of spoken instructions. It allows us to “screen” the important auditory information (e.g., teacher giving instructions in the classroom) from the irrelevant information (e.g., traffic noise).

Central Auditory Processing also allows us to understand how spoken words can be broken up into individual sounds and the sequence in which the sounds are organised. These skills are necessary for developing reading and spelling. Children with poor auditory processing skills often find learning to read and spell very difficult.

Central Auditory Processing also allows us to have an intact auditory short-term memory. That is, the ability to keep spoken information in our memory long enough to analyse it, compare it and manipulate it.

Children or adults who have Central Auditory Processing Difficulties find it difficult to understand long and complex sentences and stories, particularly when there is some background noise present. This is seen very clearly in the classroom. They can be expected to miss completely or misunderstand parts of conversation or instructions.

An Audiologist is the professional who tests for Central Auditory Processing difficulties.

Speech Pathologists usually see children with C.A.P difficulties due to the impact this disorder has on listening, comprehension and reading and spelling.

If your child is diagnosed with Central Auditory Processing difficulties, then these suggestions should help your child in the classroom :

- sitting the child towards the front,
- reducing or eliminating background noise and avoiding open plan classrooms,
- providing extra visual cues (e.g. drawing a plan on the board or writing the important information down),
- checking to see whether the child has received and understood your spoken instructions.

