



AUDITORY PROCESSING DISORDER (APD)

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VIDEO

- <https://www.youtube.com/watch?v=Kq4EXctw-wc>



DEFINITION

- APD is a language-based disorder that affects both spoken and written language, thus affecting a persons learning process.
- Normal peripheral hearing
- Impairment in auditory nervous system
- BSA and ASHA definitions: poor recognition, and discrimination
- No problem in listening in quiet
- Difficulty listening in noise
- Association with behavioral, language and reading problems (children)



- People with APD say that speech seems too fast, fragmented and confusing and other background sounds can drown out speech.
- It is common that they hear the start and end of a sentence or paragraph, but may lose the information that was mentioned throughout and miss throughout information.
- They may also mispitch or miscues that add meaning to a lecture or a conversation.



ETIOLOGY

- 98% cases, no identifiable cause.
- Assumed impairment/developmental delay in auditory nervous system
- 2-3% of cases due to neurological disorder or injury
- Seizure, metabolic disorder, demyelinating disease, head injury



TYPICAL PAEDIATRIC PRESENTATION

- Primary school-aged child
- Unexplained 'Listening difficulties'
- Often language and reading-related problems
- Poor academic achievement



Symptom	
Difficulties with speech in noise	66%
Reading problems	47%
Difficulties with spoken instructions	34%
Spelling problems	37%
Concentration problems	22%
Memory problems	22%
Hyperacusis	19%
Needs TV loud	19%
Pragmatic/social problems	13%
Average number of symptoms reported	3.4 (1.8)

Duques, P., Bishop, D. V. M., Srimanna, T., & Bamieu, D. E. (2008). Profile and aetiology of children with Auditory Processing Disorder (APD). *International Journal of Pediatric Otorhinolaryngology*, 72(4), 483-489.

DIAGNOSIS

- Listening problems
- Normal peripheral hearing

- Tests of auditory processing
 - Speech-in-Noise tests.

TREATMENT & MANAGEMENT

- Management (Behavioural & Environmental)
 - Classroom acoustics & seating
 - FM sound system
 - Treatment; Auditory/other training
 - Auditory discrimination
 - SLT-type activities (language, phonological therapy)
 - Multi-sensory integration
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APD IN ADULTS

- “Clinical presentation of reported difficulty understanding speech in the presence of noise accompanied by clinically "normal" hearing thresholds, and no other obvious cause”.
 - Tests of auditory, linguistic, and psychological function.
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APD VS DYSLEXIA

- Similar psychometric profile: Attention, reading and language difficulties
- Diagnosis is partly dependent on the profession of the consulting clinician



CLINICAL PRACTICE

- Children presenting with 'listening difficulties' are highly different
- Be alert to possible **neurological cause**
- Listening difficulties are real
- Include attention/hyperactivity problems, dyslexia, language problems.
- Need to investigate range of skills in order to prescribe most appropriate treatment
- **Multi-disciplinary** assessment Appropriate diagnostic label to guide treatment and management efforts.

