

Auditory Neuropathy Spectrum Disorder (ANSD)

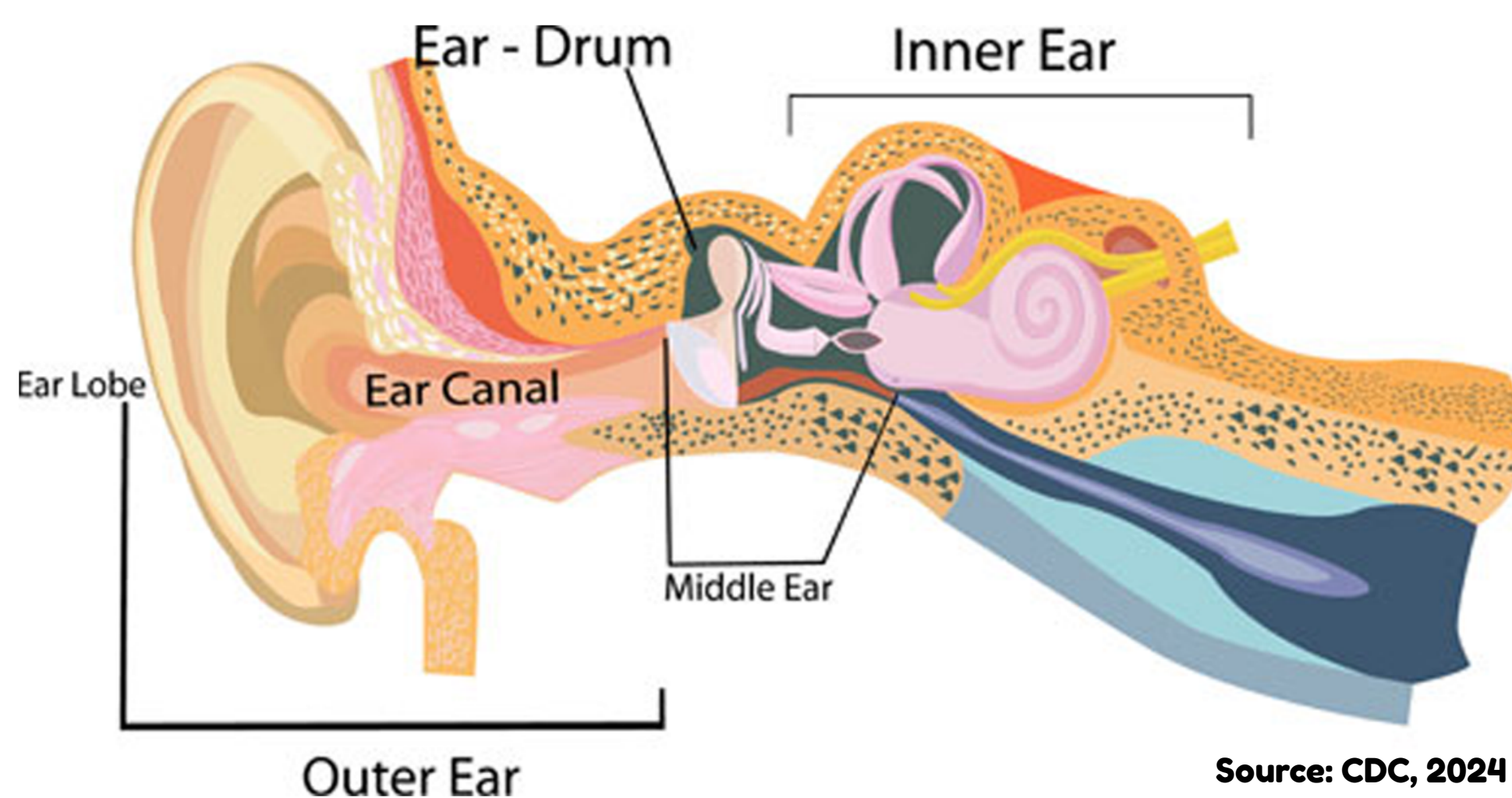
What is ANSD?

- ANSD is a type of hearing difference that can affect anyone of any age.
- People with ANSD may detect sounds, but the sound signal may not be clearly or consistently traveling to the brain, making it difficult for the brain to understand sounds or making it so the person's hearing changes.



How does ANSD work?

- Before sound reaches the brain, it must first travel through the outer, middle, and inner ear.



- Inside of the inner ear is the cochlea (the snail shaped organ), which helps detect sound. The cochlea uses the auditory nerve to send sound signals to the brain.
- For people with ANSD, the cochlea may be able to detect sounds. However, their auditory nerve can mix up the sound and send an unclear message to the brain.
- This means that people with ANSD may be able to hear sounds, but may have difficulty understanding speech because of this unclear message being sent to the brain.



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What does ANSD look like?

- People with ANSD may:
 - have difficulty understanding speech, especially in noisy environments
 - have a wide range of hearing levels
 - have fluctuating hearing levels on a day-to-day basis
- It is important to remember that ANSD affects everyone differently, and communication supports will vary based on the individual. There is no one size fits all support for ANSD!

What are interventions for ANSD?

- While there is no “cure” for ANSD, there are many options to support communication for people with ANSD, including:
 - Therapy and skill-building, such as speech-language pathology and auditory-verbal therapy
 - Multimodal communication approaches, such as spoken language, sign language, and visual supports including captioning and cued speech
 - Hearing technology, including FM systems, hearing aids, cochlear implants, and other assistive technology

How can I support someone with ANSD?

- Since ANSD can look very different depending on the individual, the best way to support someone with ANSD is to ask them directly how you can support their communication needs.
- Some common strategies may include:
 - Reducing background noise when possible – this may look like turning off the television, finding a quieter space, etc. when having a conversation
 - Speaking clearly and at a natural pace – there is no need to raise your voice or overexaggerate your speech
 - When possible, use visual supports such as captions, written notes, etc.
 - Use an interpreter if the individual uses visual communication you are not familiar with
 - Be patient and understanding if asked to repeat something



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Resources

**Auditory Neuropathy -
National Institute on
Deafness and Other
Communication
Disorders**



**Understanding Auditory
Neuropathy: Diagnosis
and Management -
AuDResources**



**Auditory Neuropathy
Spectrum Disorder -
Nemours KidsHealth**



**Helpful materials from
the HELLO Lab at the
University of
Connecticut**



**Auditory Neuropathy -
Medicover Hospitals**



**Auditory Neuropathy
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