

Assessing outcomes of hearing aids in adults



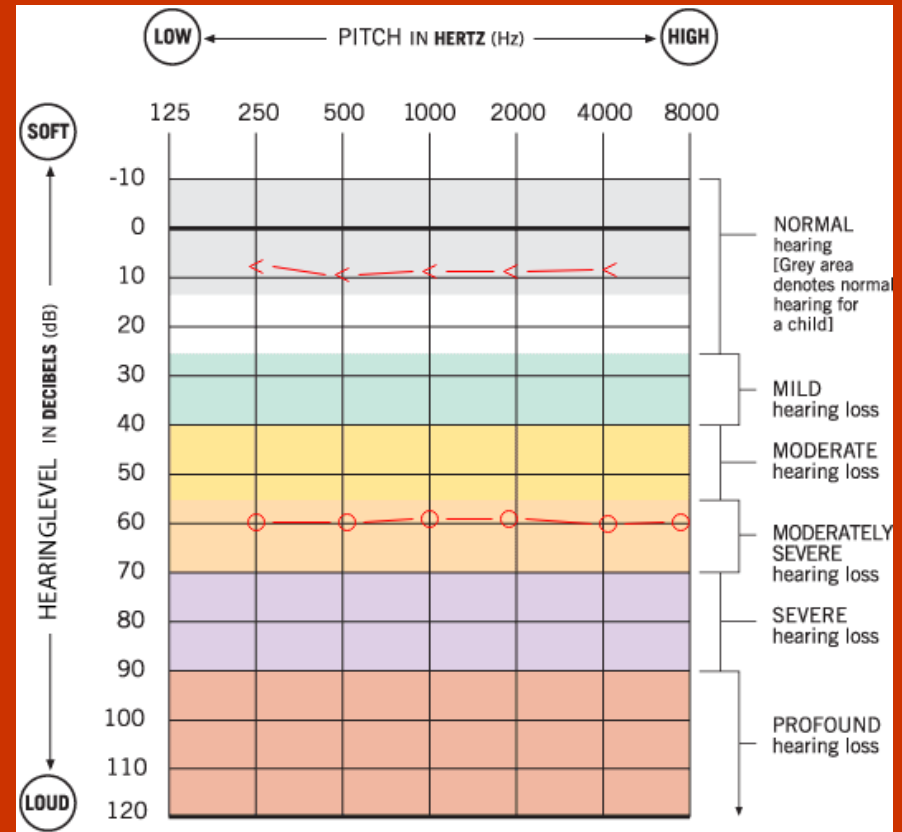
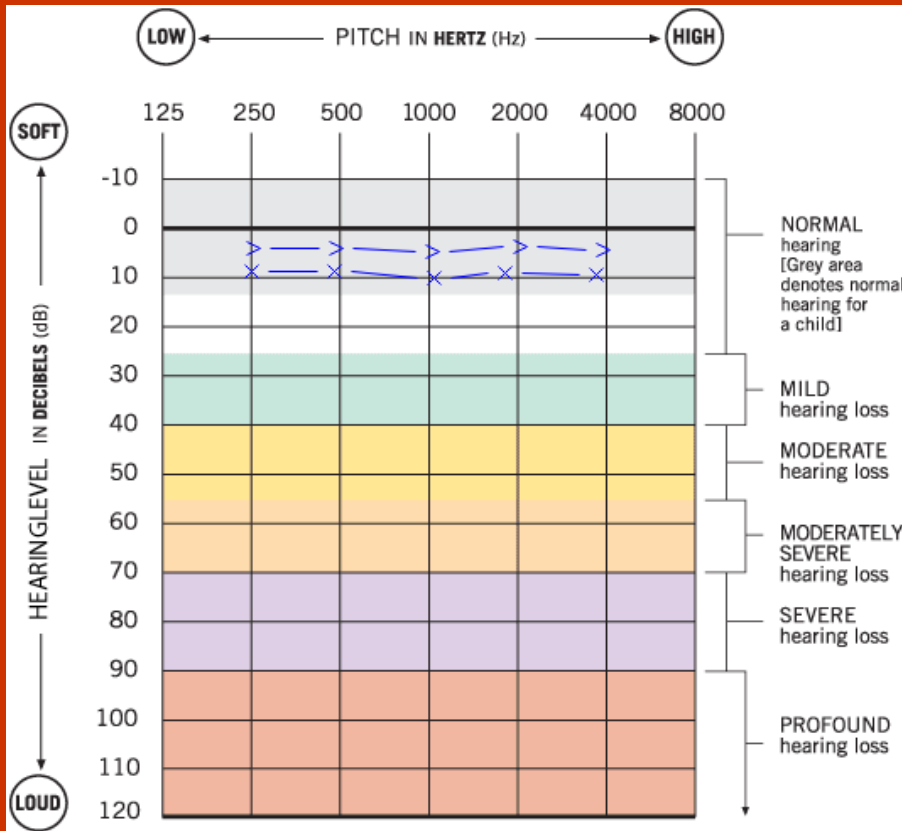
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THE BEGINNING IS CORRECT AUDIOGRAM AND CORRECT SYMBOLS....

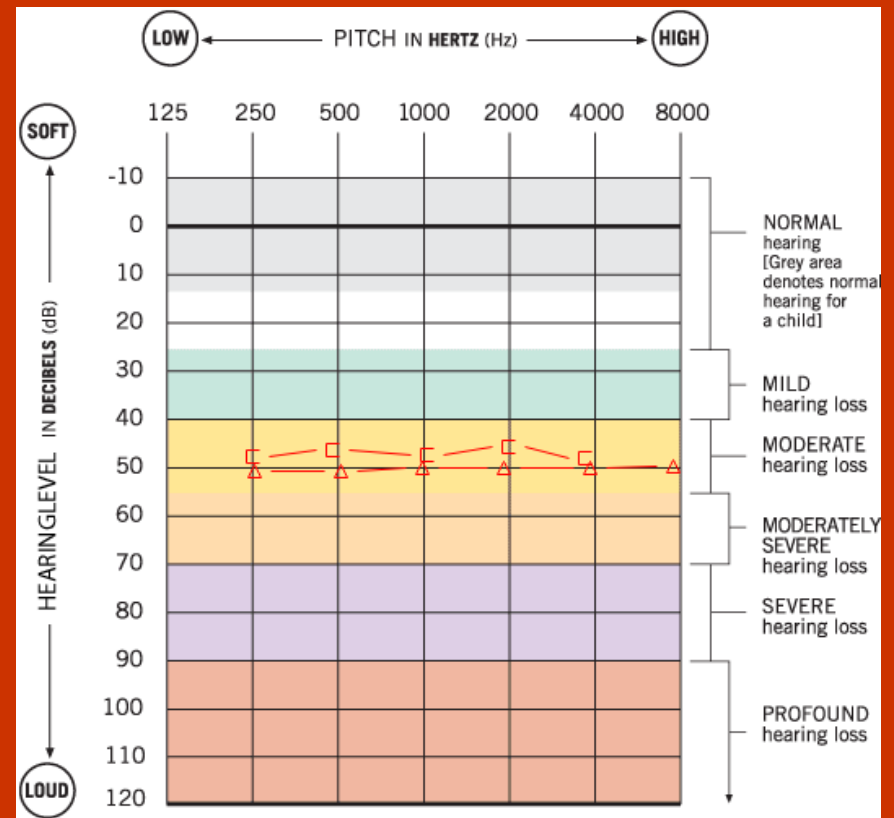
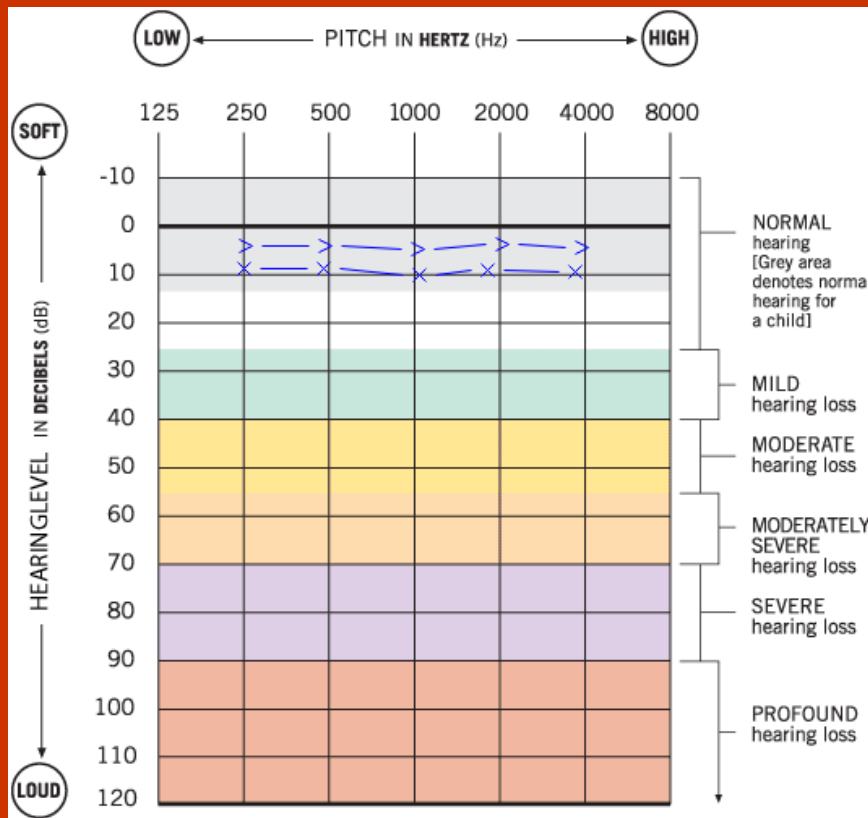
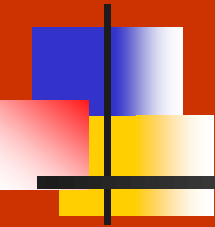


Legend	Right	Left
Air Conduction	O	X
•with masking	Δ	□
Bone Conduction	>	v
•with masking	∟	∟
No Response	↙	↘

CORRECT AUDIOGRAM?



WITH MASKING THE SITUATION CHANGES...





IMPORTANT ISSUES

verification and validation



VERIFICATION

Hearing aid verification techniques primarily focus on ways to confirm that the gain in the hearing aid matches the prescribed targets.



VALIDATION

Evaluation whether the matched hearing aid targets are actually appropriate for the patient with regard to improvements in speech perception, or whether the patient will benefit from such prescribed hearing aid gain



Behavioral Comparisons

Traditional word recognition tests,
such as NU-6 and CID W-22
monosyllabic word lists – BKB –
Speech discrimination

But still they are subjective..and
laboratory room tests.. not real life..



Real-Ear Verification Measures

Objective measures of insertion gain provide excellent information about the amount of real-ear gain delivered by the hearing aid

But they do not necessarily supply any information about the patient's speech understanding ability in realistic listening situations using that hearing aid.

Self-or not self assessment questionnaires



- Self Assessment of Communication
- Communication Scale for Older Adults,
- Hearing Performance Inventory
- Hearing Handicap Inventory for Adults
- Hearing Handicap Inventory for Elderly
- Abbreviated Profile of Hearing Aid Benefit
- Client Oriented Scale of Improvement
- Glasgow Hearing Aid Benefit Profile
- Hearing Aid Performance Inventory



SPEECH PERCEPTION TESTS

- Connected Speech Test
- Speech in Noise
- Hearing in Noise Test
- Lexical Neighborhoods Test
- Quick Speech in Noise Test
- Words in Noise



IMPORTANT ISSUES

- *Testing in quiet and in noise.*
- *Testing in real life situations.*



IMPORTANT ISSUES

verification and validation

Hearing aid verification techniques primarily focus on ways to confirm that the gain in the hearing aid matches the prescribed targets.



TESTS VALIDATED?

Four types of validity

(predictive, content, construct, and face validity).

Face validity. The extent to which a test instrument appears to measure what it is supposed to measure.



THE REALITY

The annual Hearing Journal survey reported that only 50% of hearing aid dispensers perform aided speech recognition testing and only 6% use sentence stimuli.



CONCLUSION

Validated subjective and objective testing should be a MUST in fitting and evaluating hearing aid-performance.

FINALLY

- ‘When you limit the impossible, the remaining, even if it seems improbable, must be the truth’

sir Arthur Doyle