

Audiometric Configurations in Children

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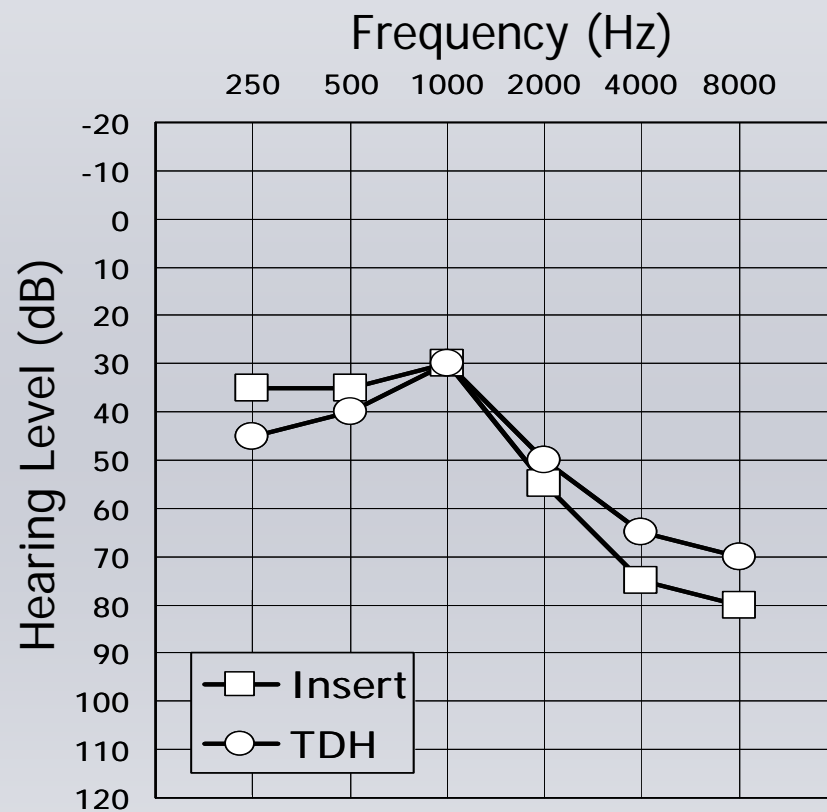
Method

- Groups
 - 6-year-old children
 - 60-year-old adults
- Audiogram Selection Criteria
 - Right ear thresholds only
 - Thresholds for each octave test frequency (250-8000 Hz)
 - At least one threshold ≥ 30 dB HL
 - Confirmed sensorinueral hearing loss by bone conduction audiometry
 - Air-bone gaps ≤ 10 dB

Method

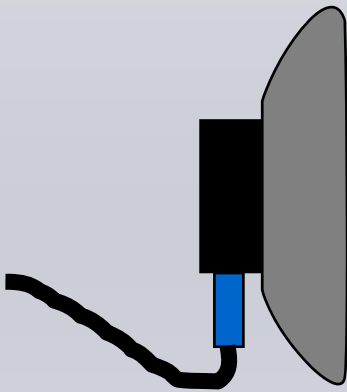
- Core Set of Audiograms
 - 227 children
 - 248 adults
- Analyses
 - Configuration
 - Asymmetry
 - Progression

*Transducer Effects

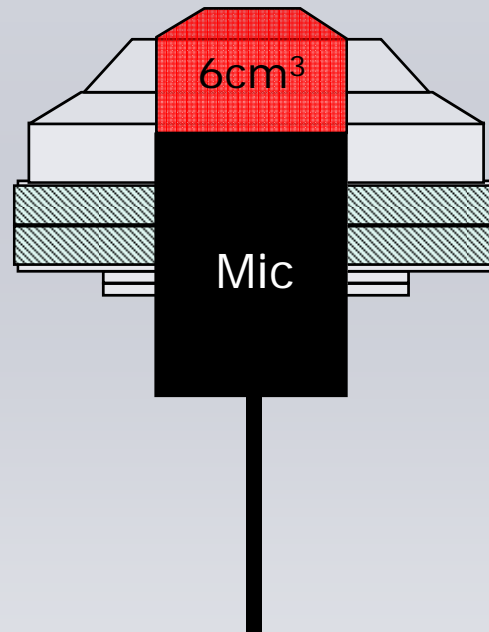


*Transducer Effects

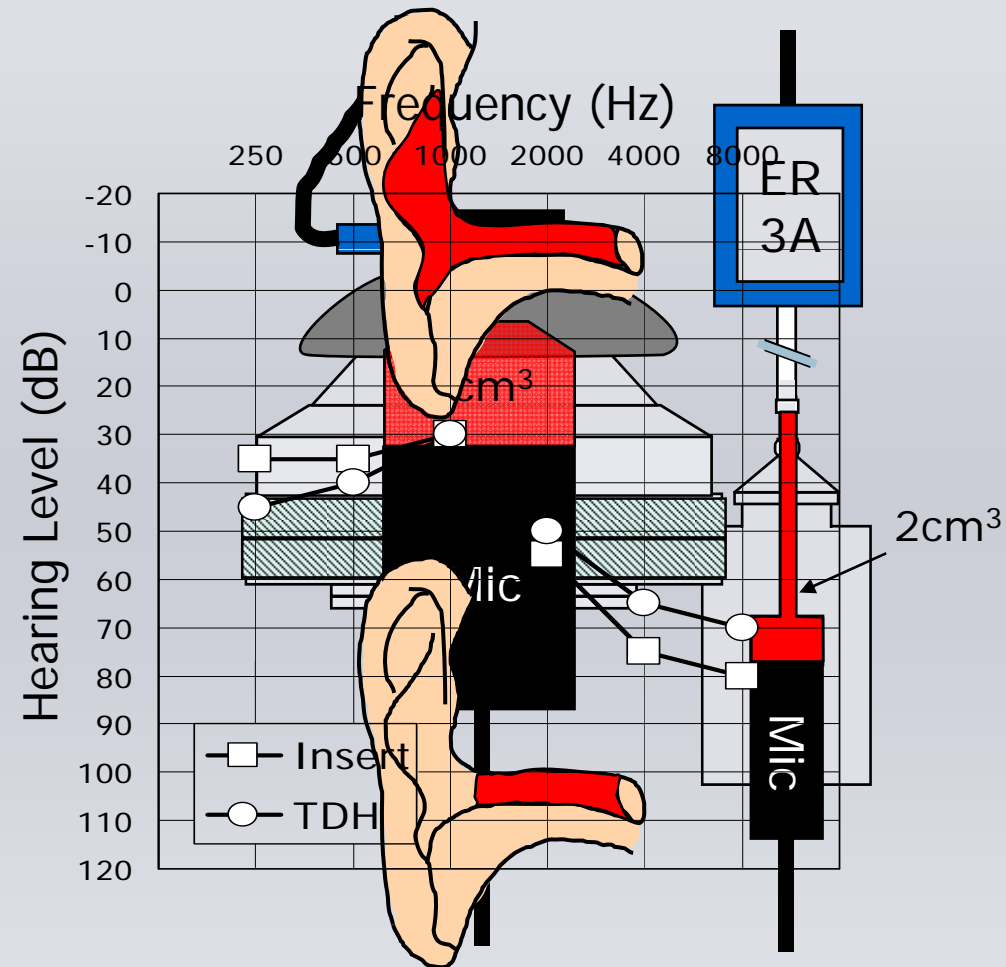
TDH Series
Earphone



NBS 9A
Coupler

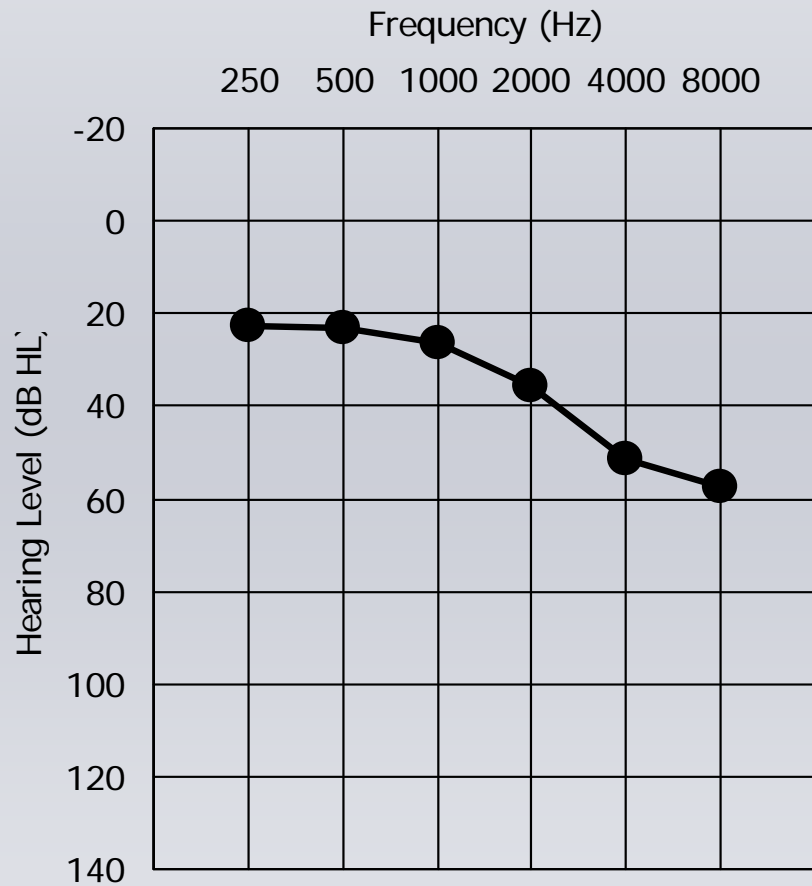


*Transducer Effects

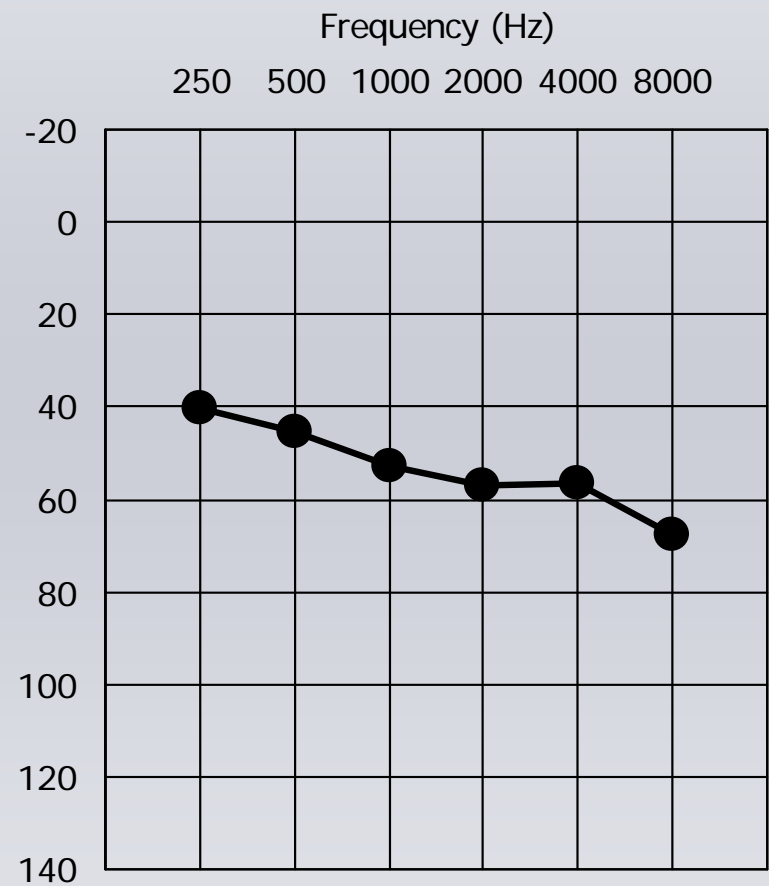


All Audiograms

Adults (n=248)

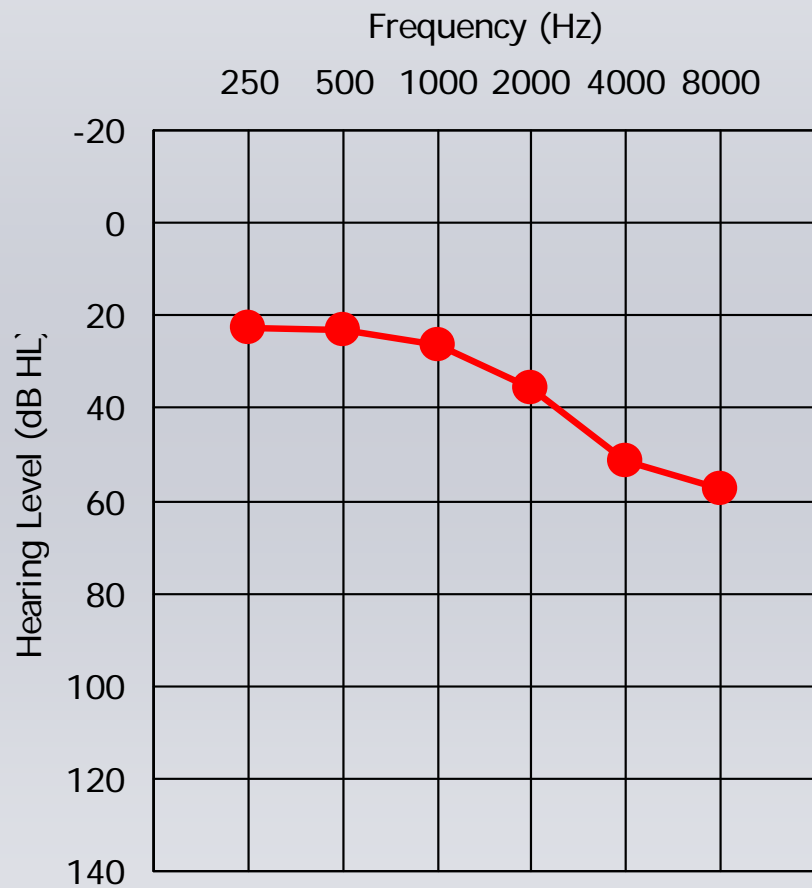


Children (n=227)

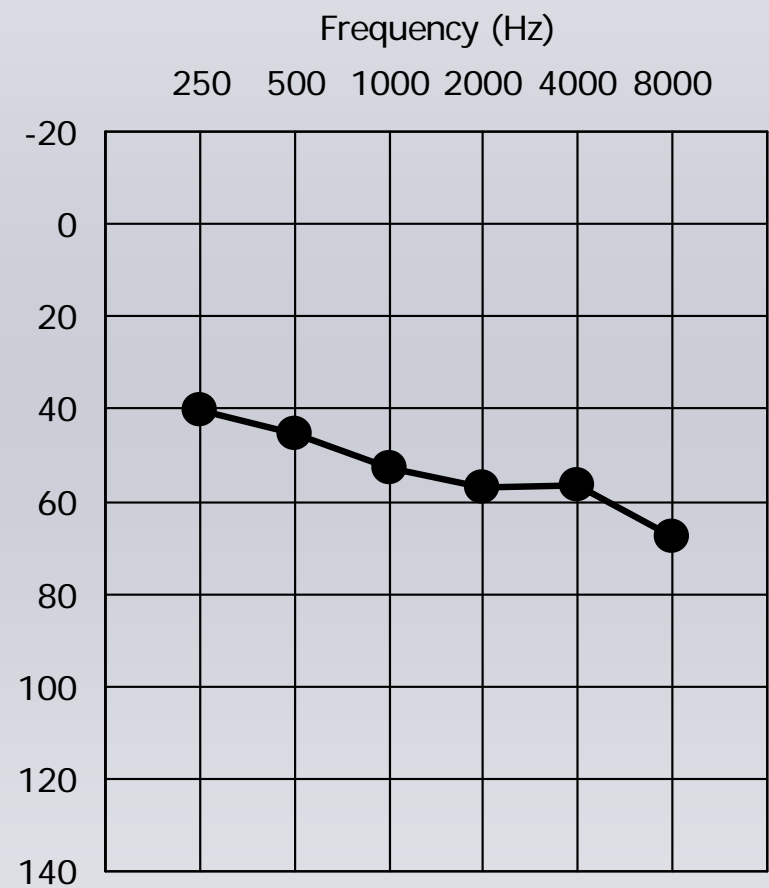


All Audiograms

Adults (n=248)

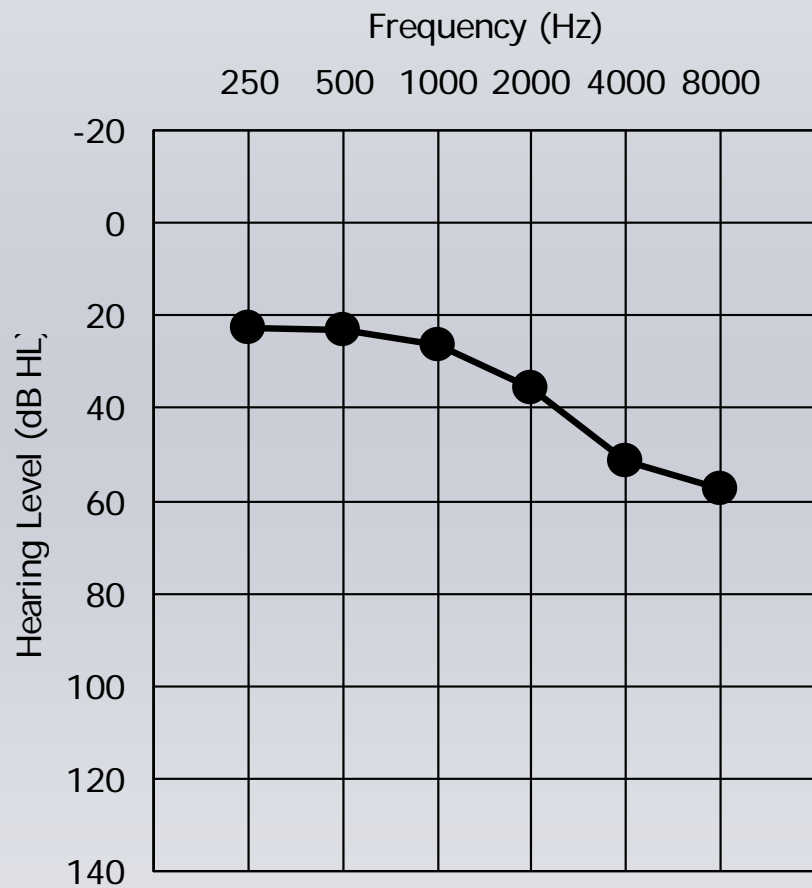


Children (n=227)

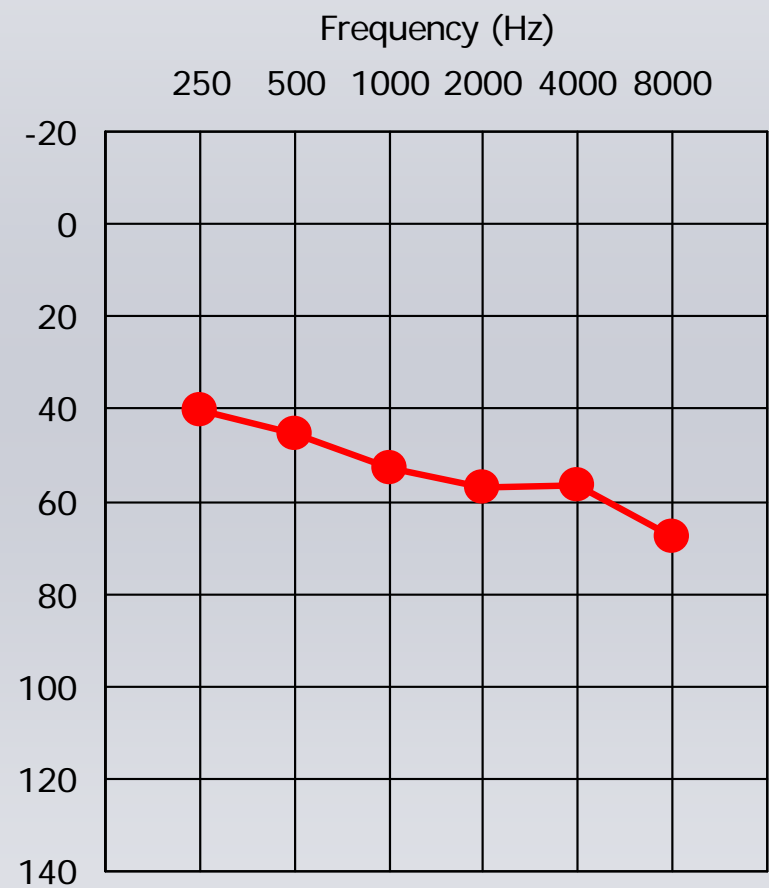


All Audiograms

Adults (n=248)



Children (n=227)

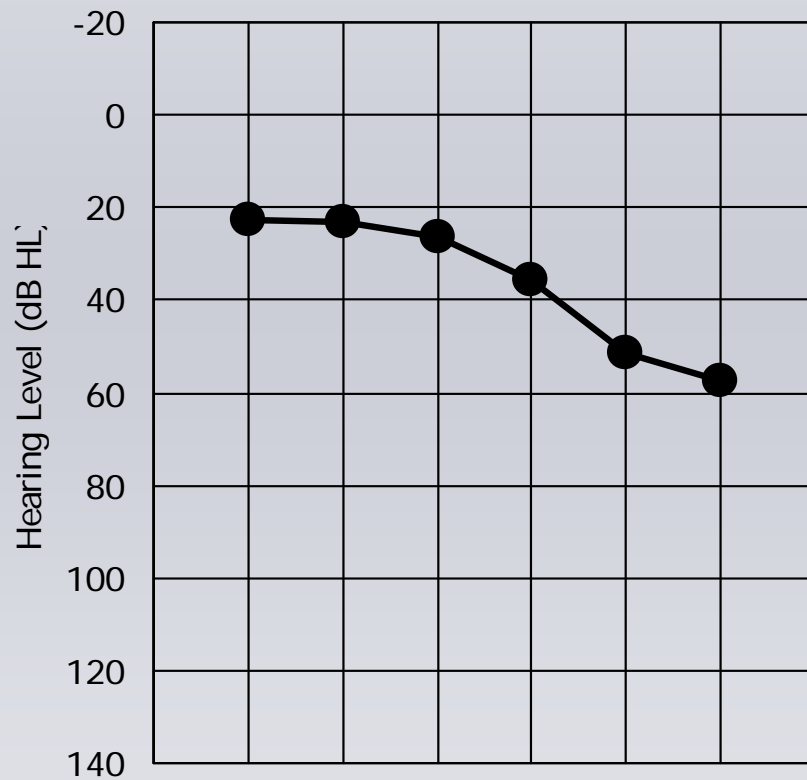


All Audiograms

Adults (n=248)

Frequency (Hz)

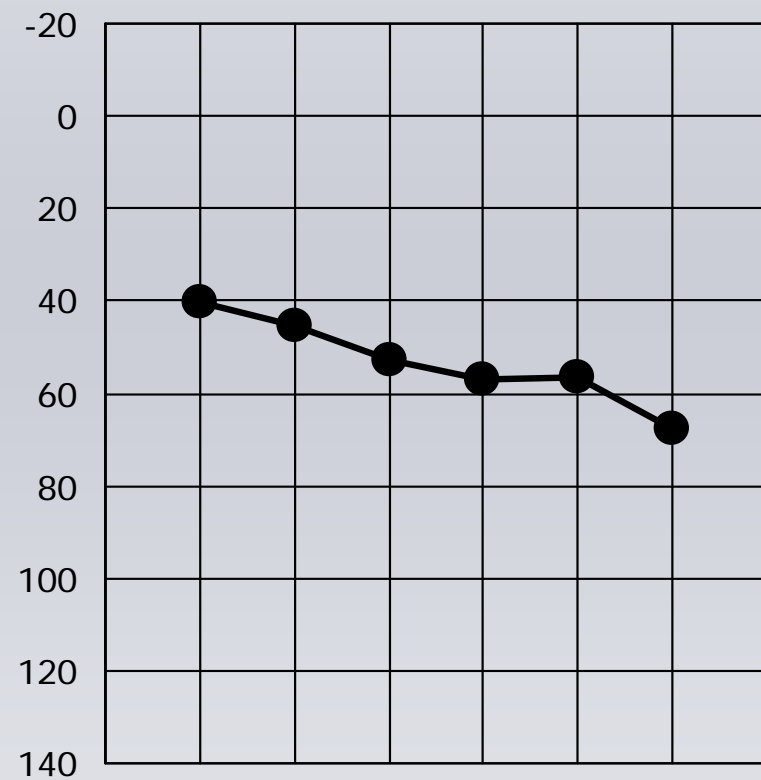
250 500 1000 2000 4000 8000



Children (n=227)

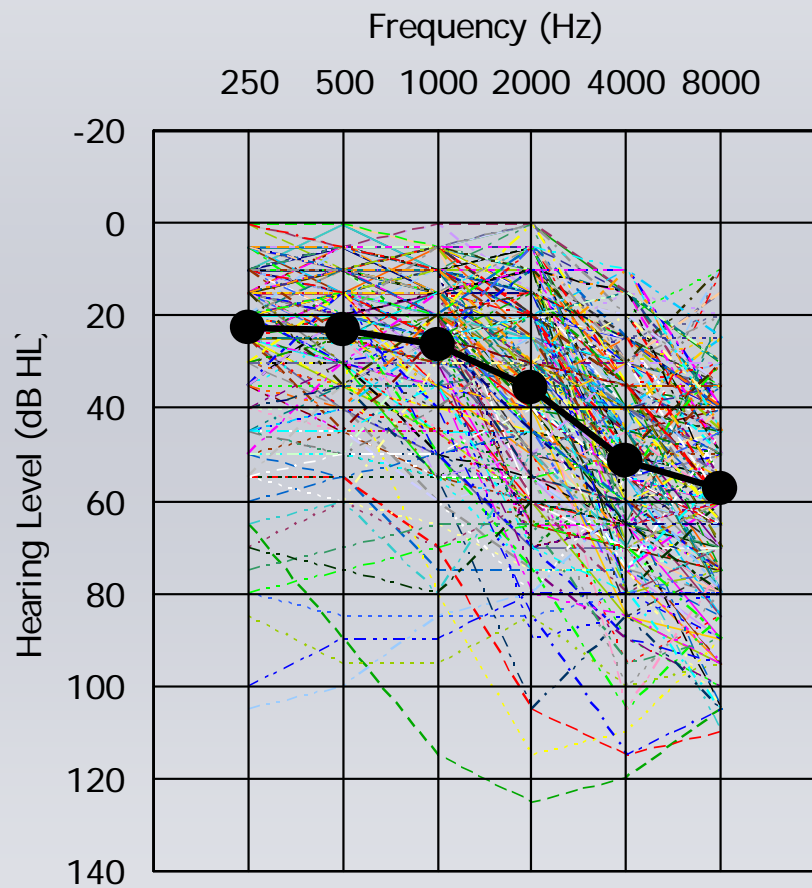
Frequency (Hz)

250 500 1000 2000 4000 8000

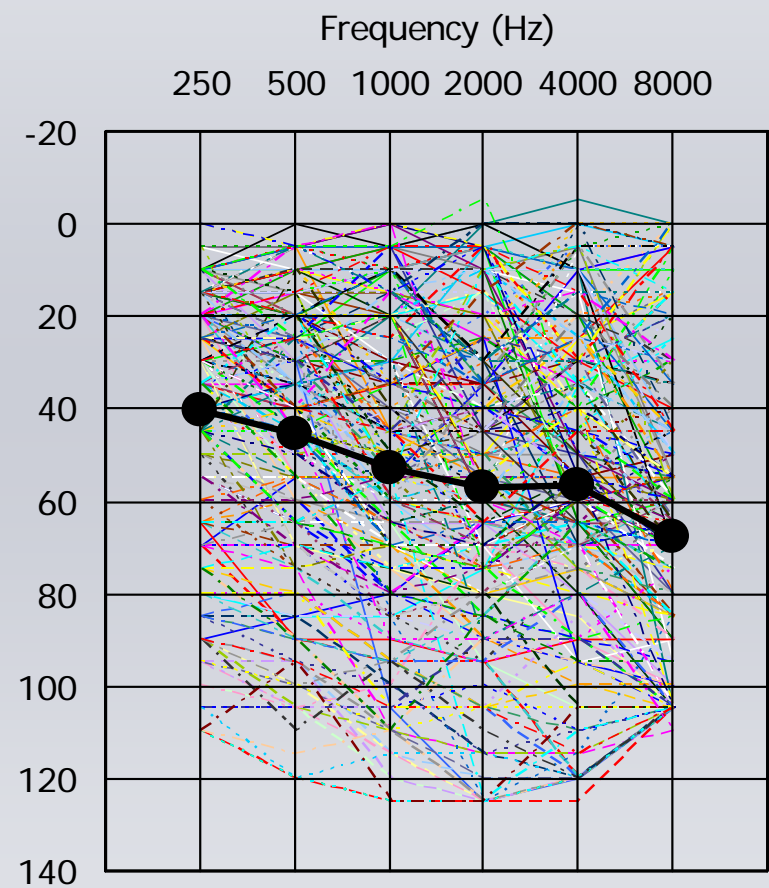


All Audiograms

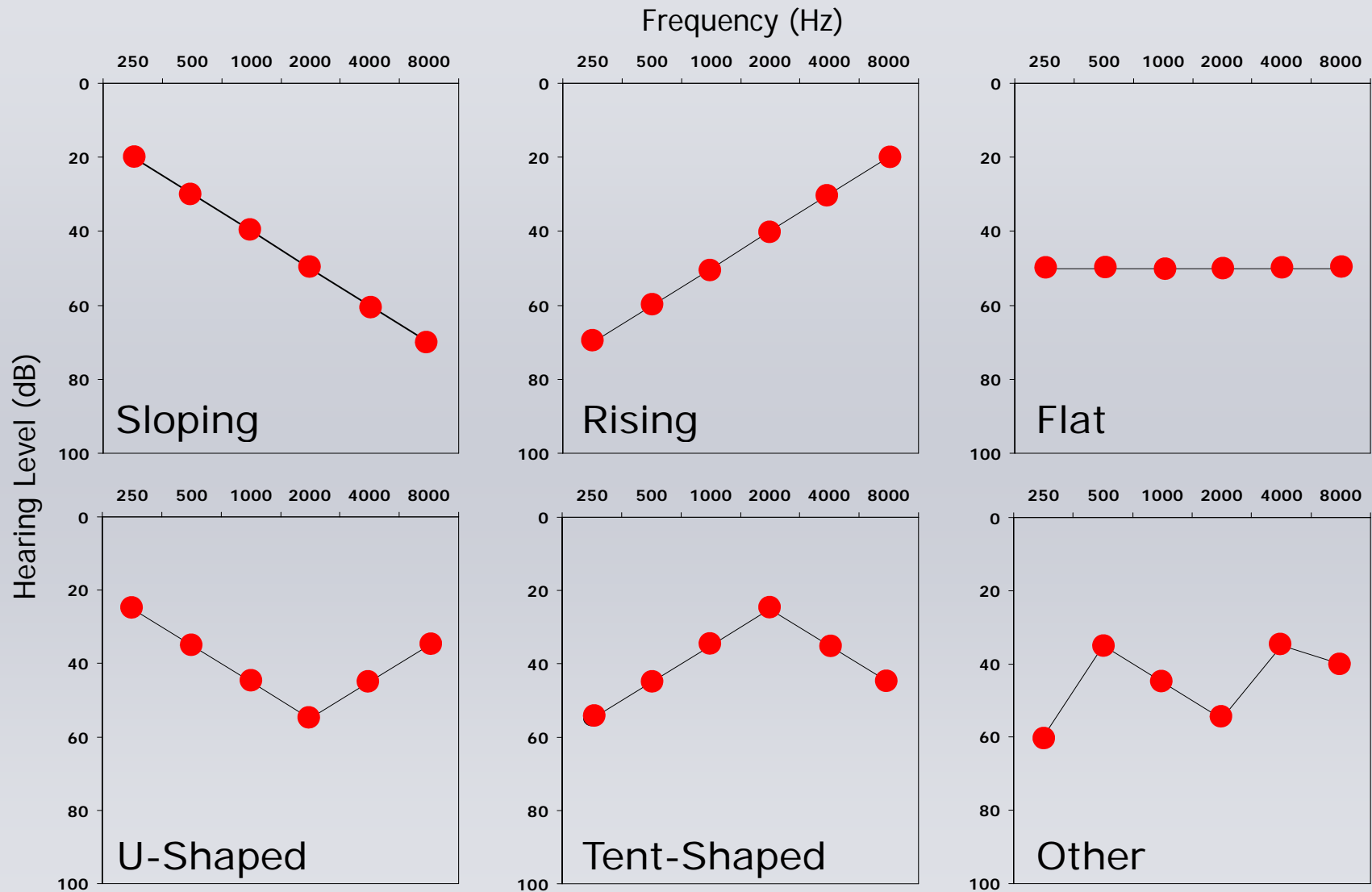
Adults (n=248)



Children (n=227)

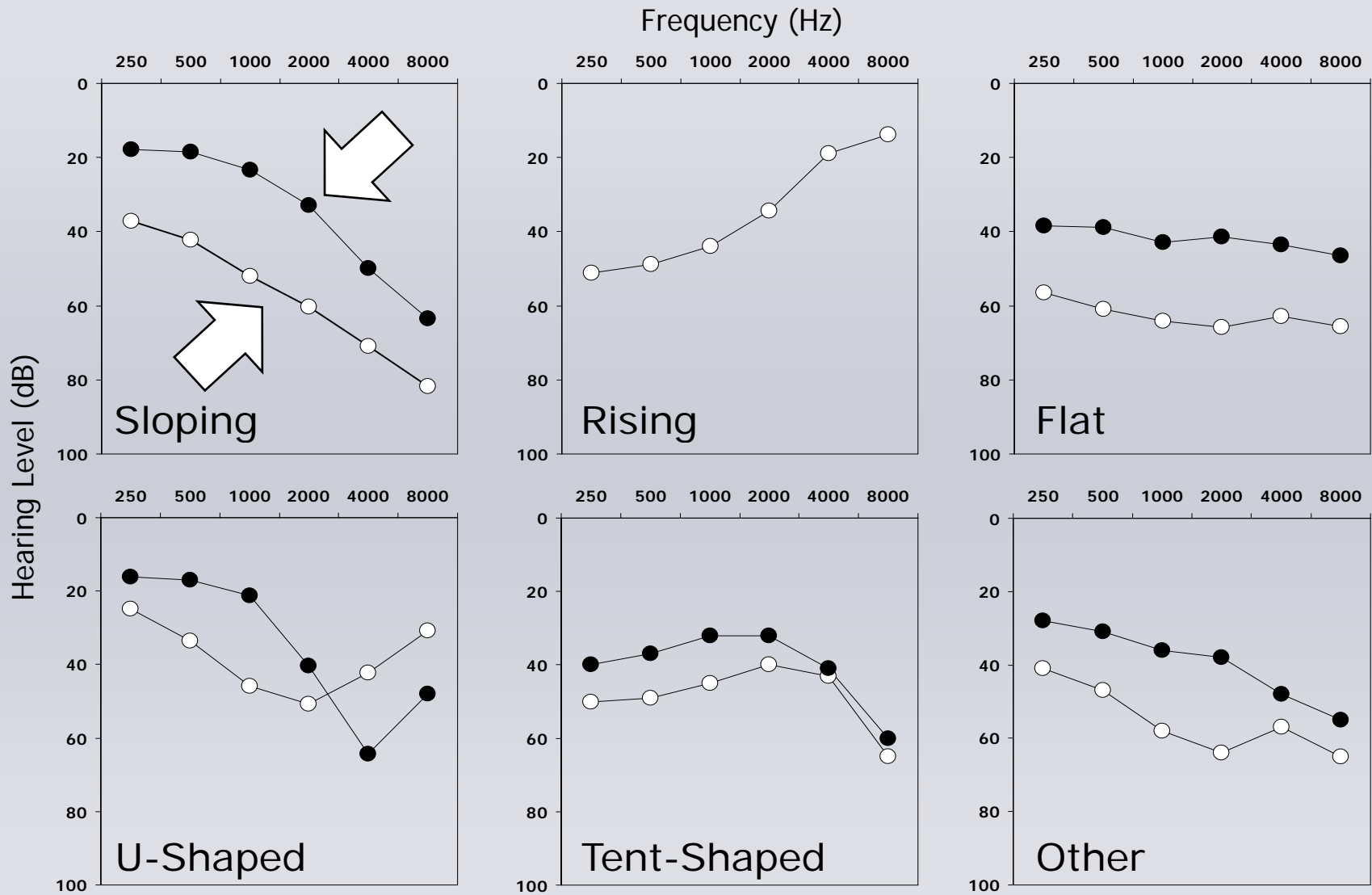


Audiometric Classification



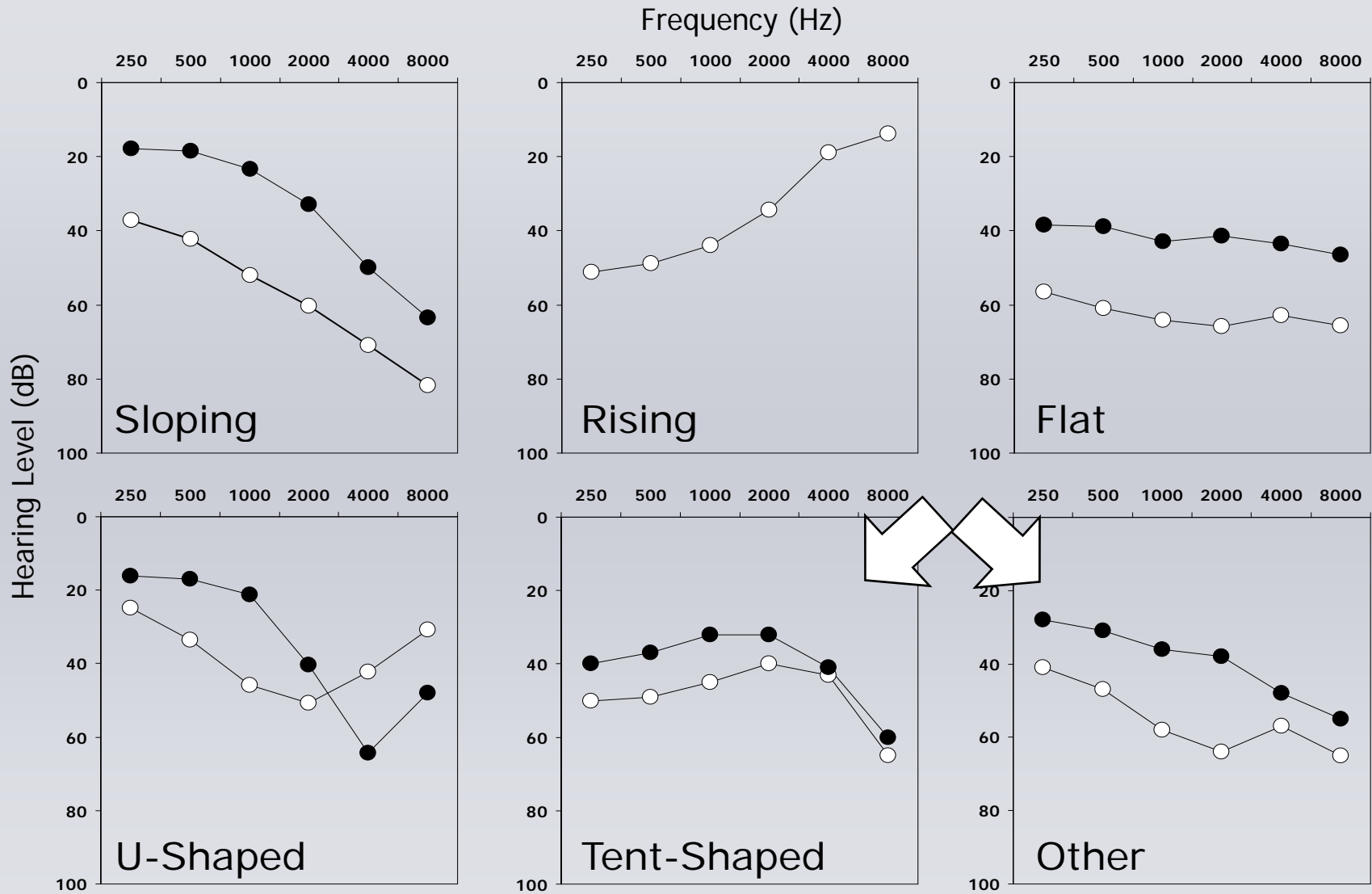
- Adults
- Children

Results (Mean)



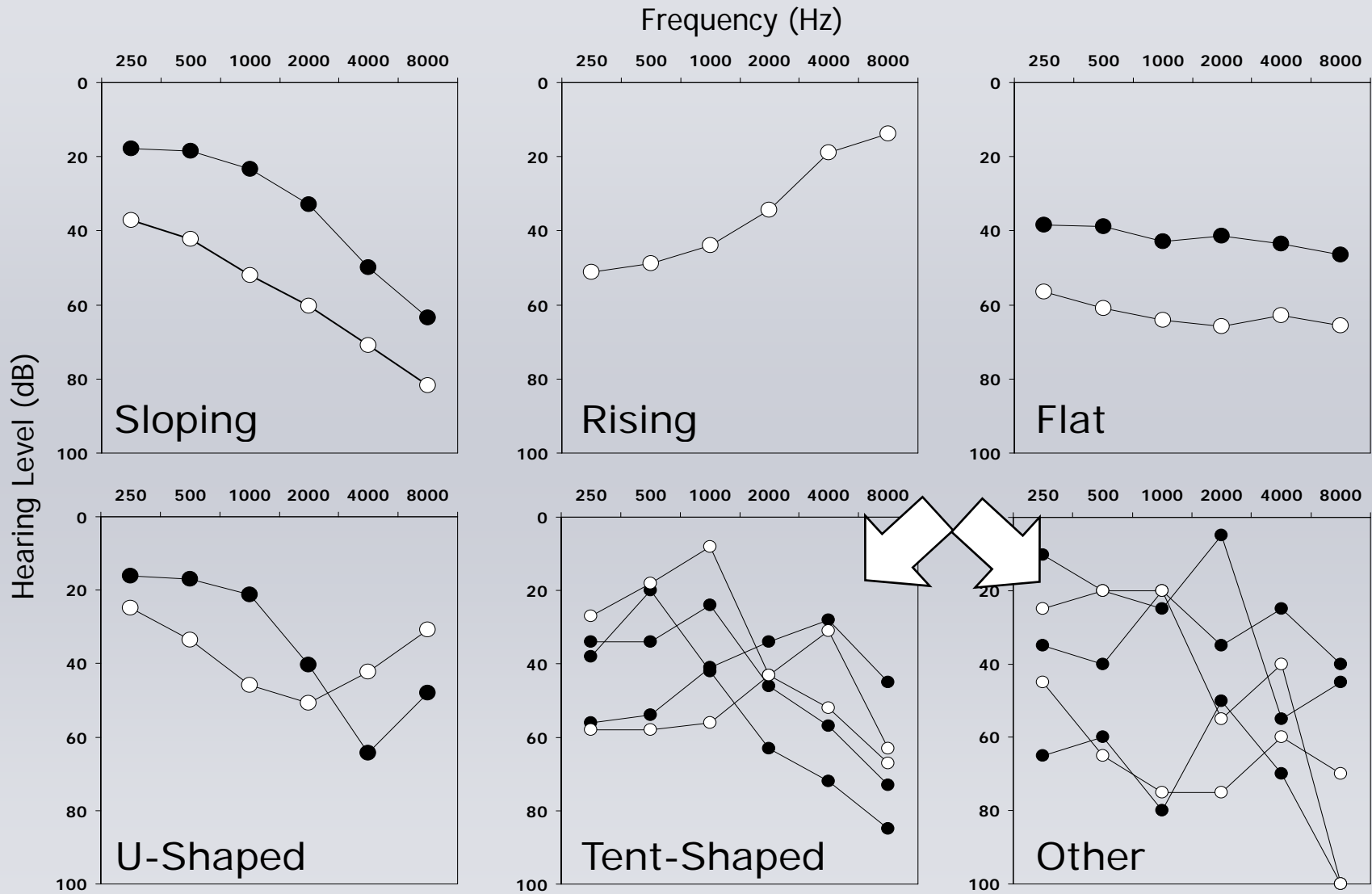
- Adults
- Children

Results (Mean)



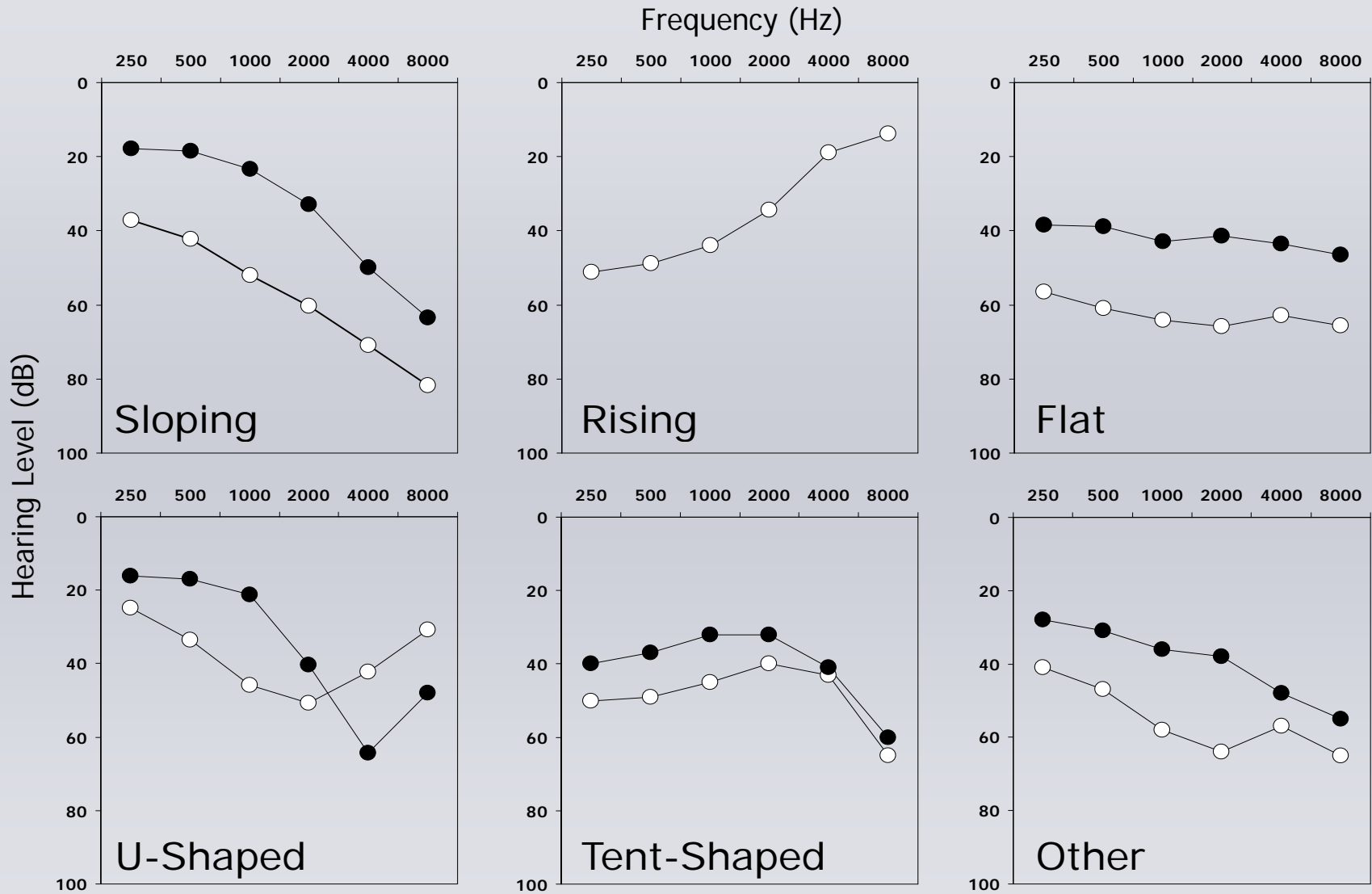
- Adults
- Children

Results (Mean)



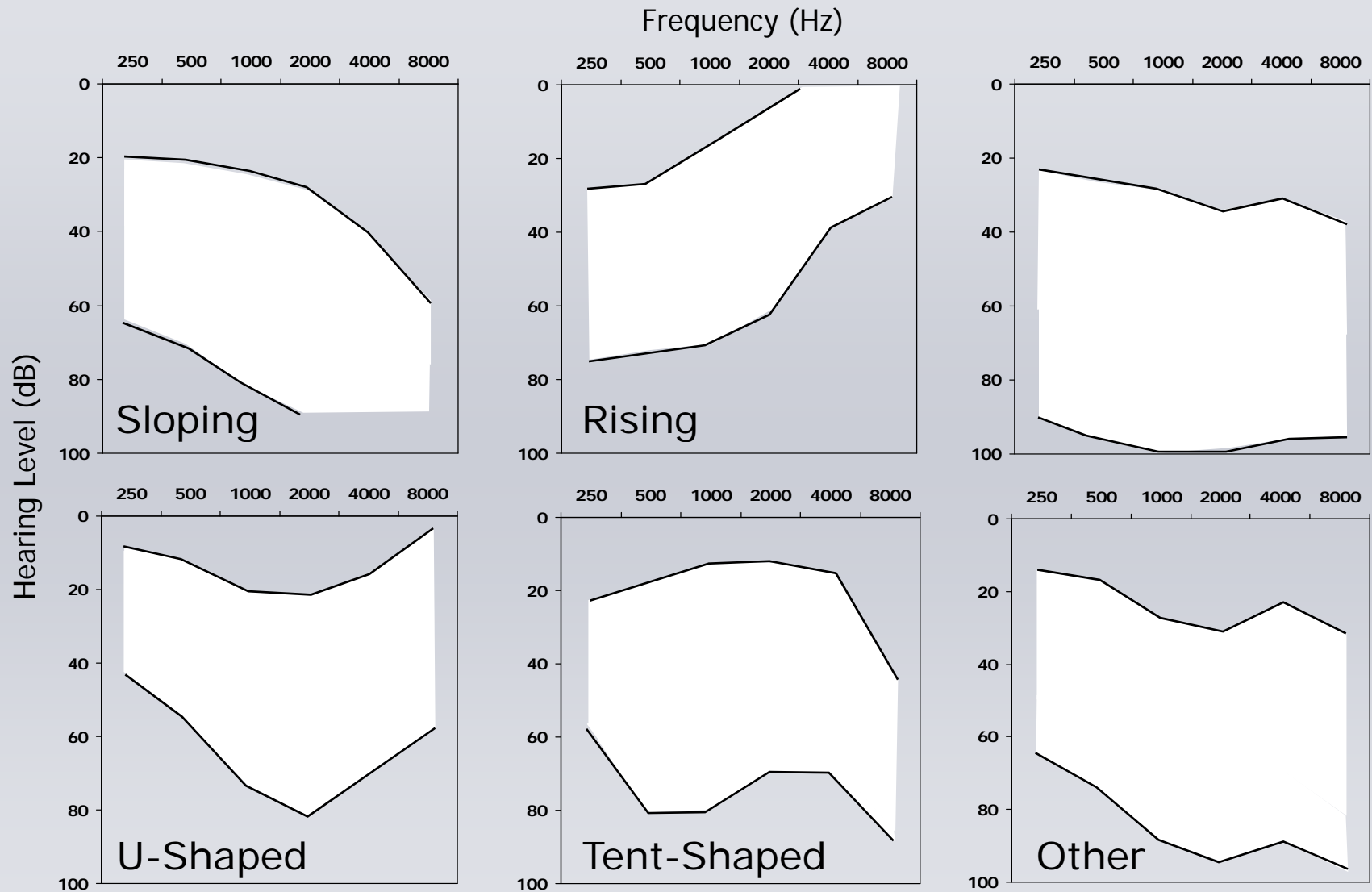
- Adults
- Children

Results (Mean)



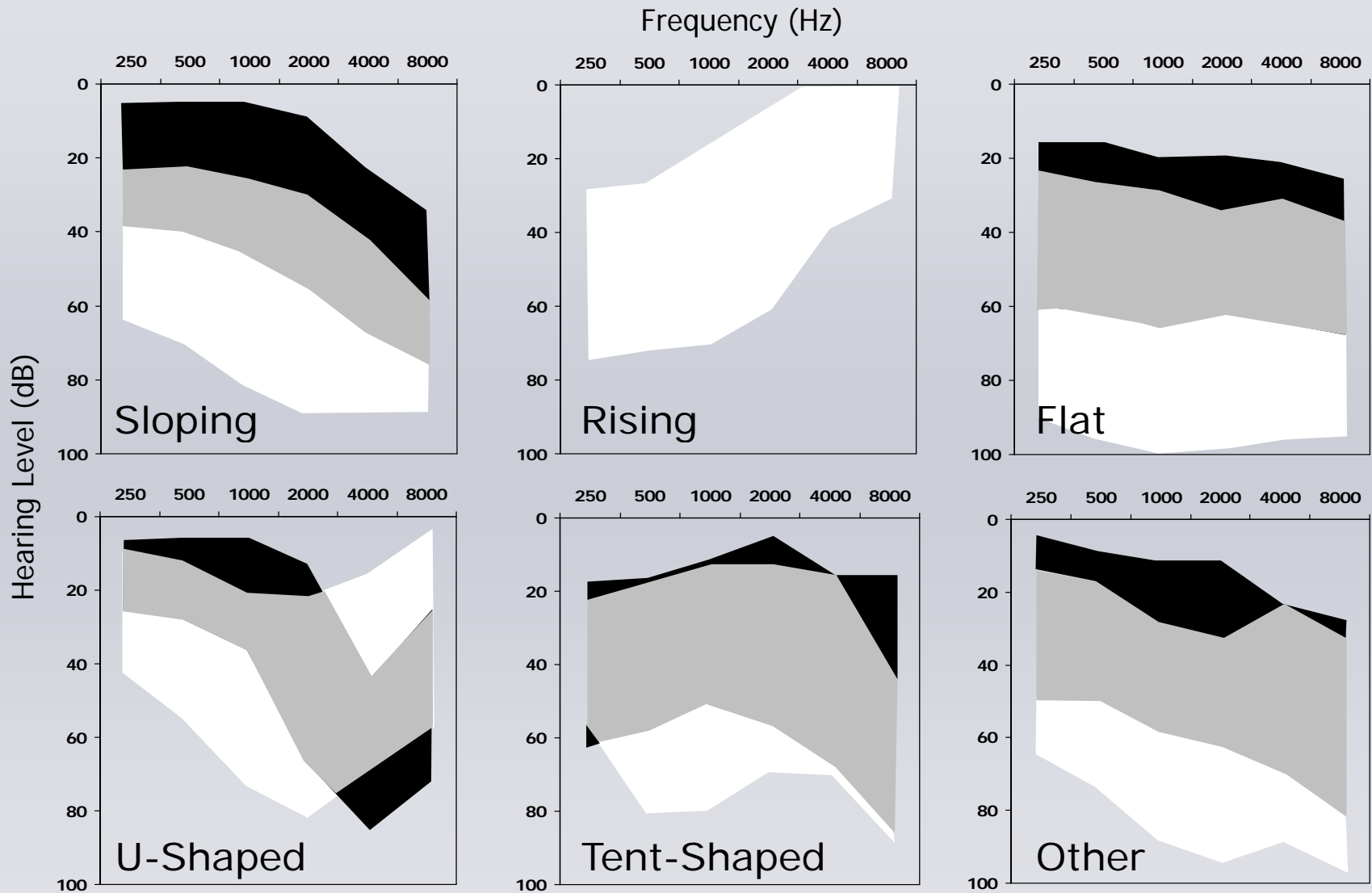
- Adults
- Children

Results (SD)



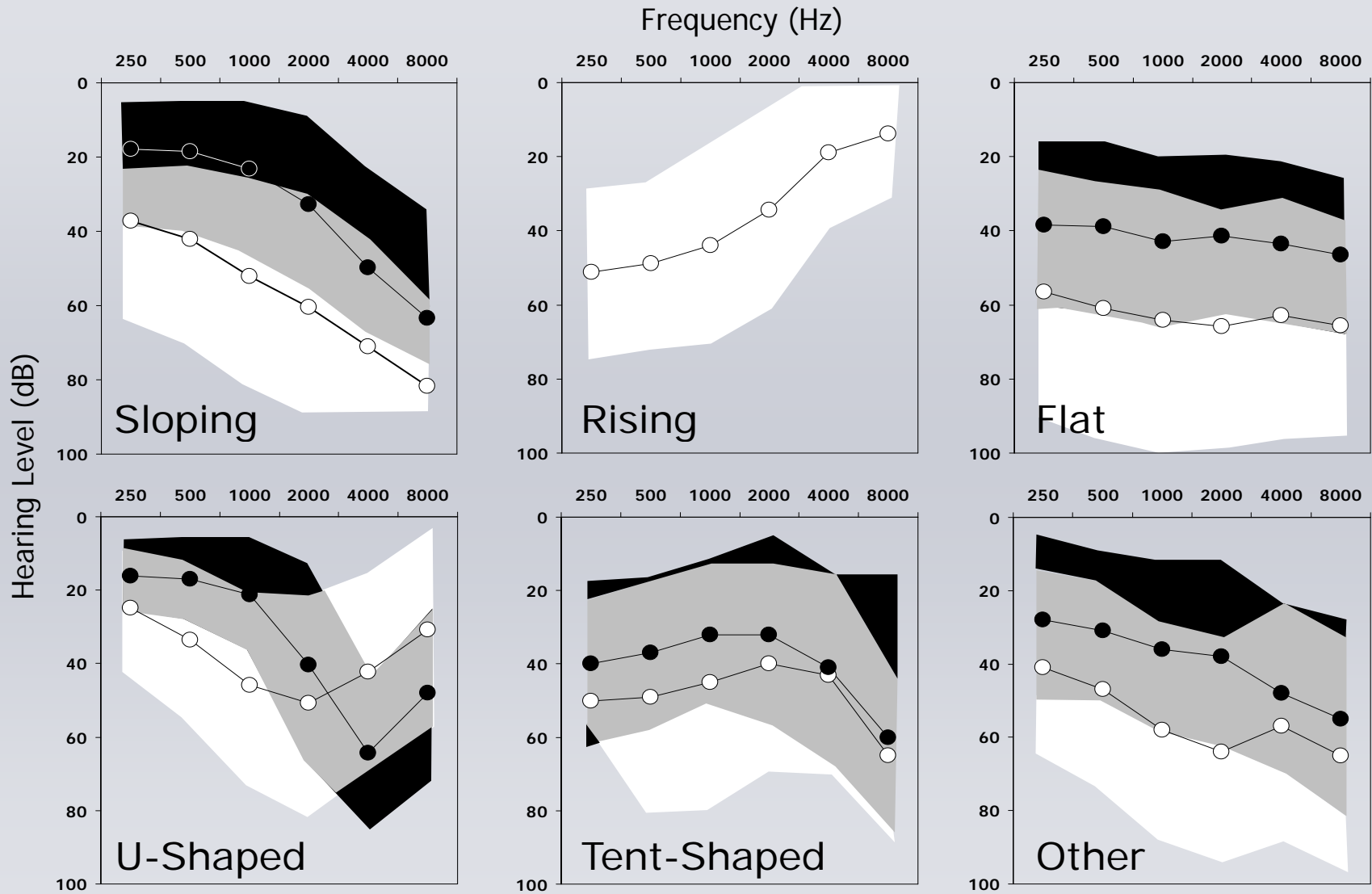
- Adults
- Children

Results (SD)

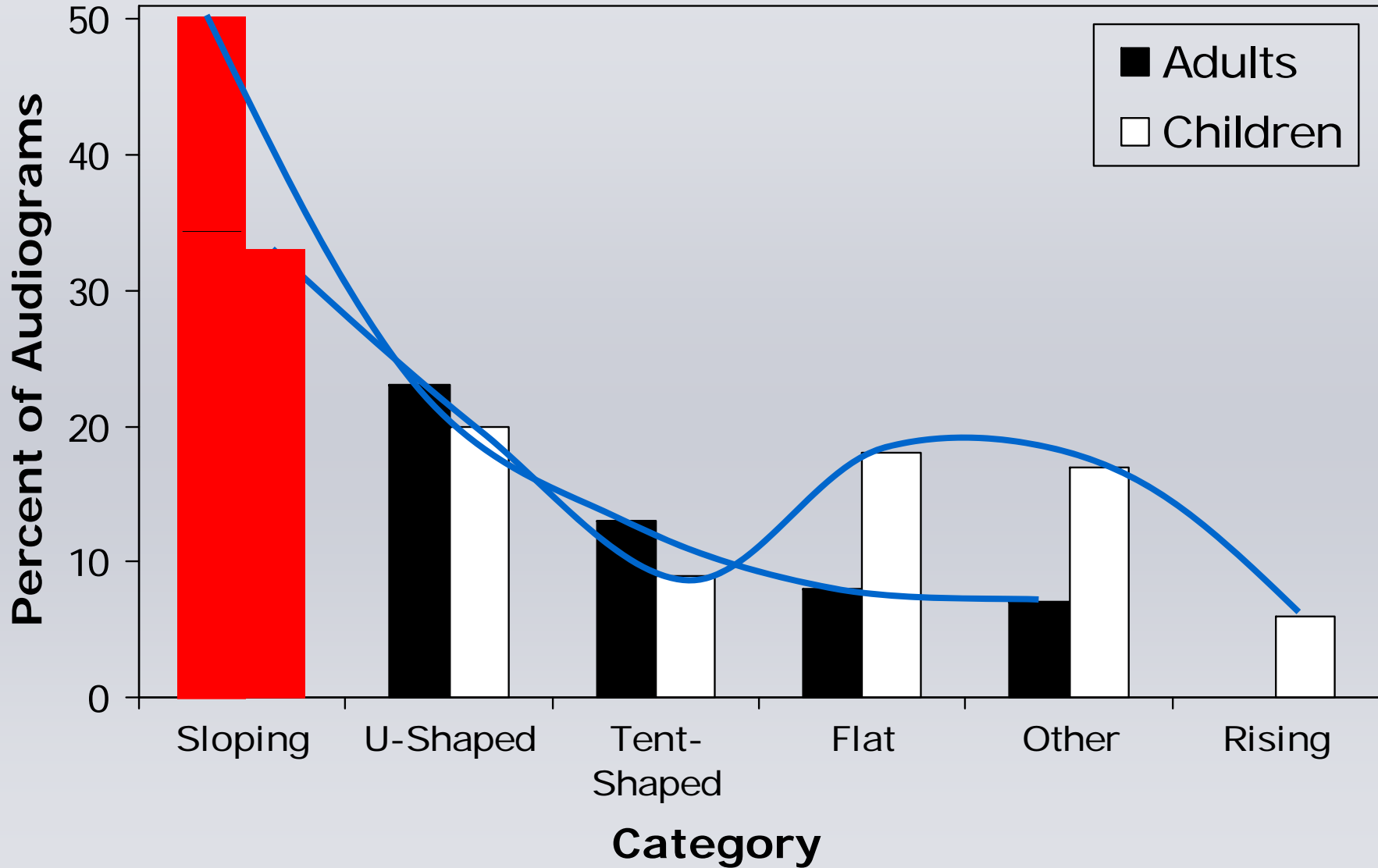


- Adults
- Children

Results (SD)

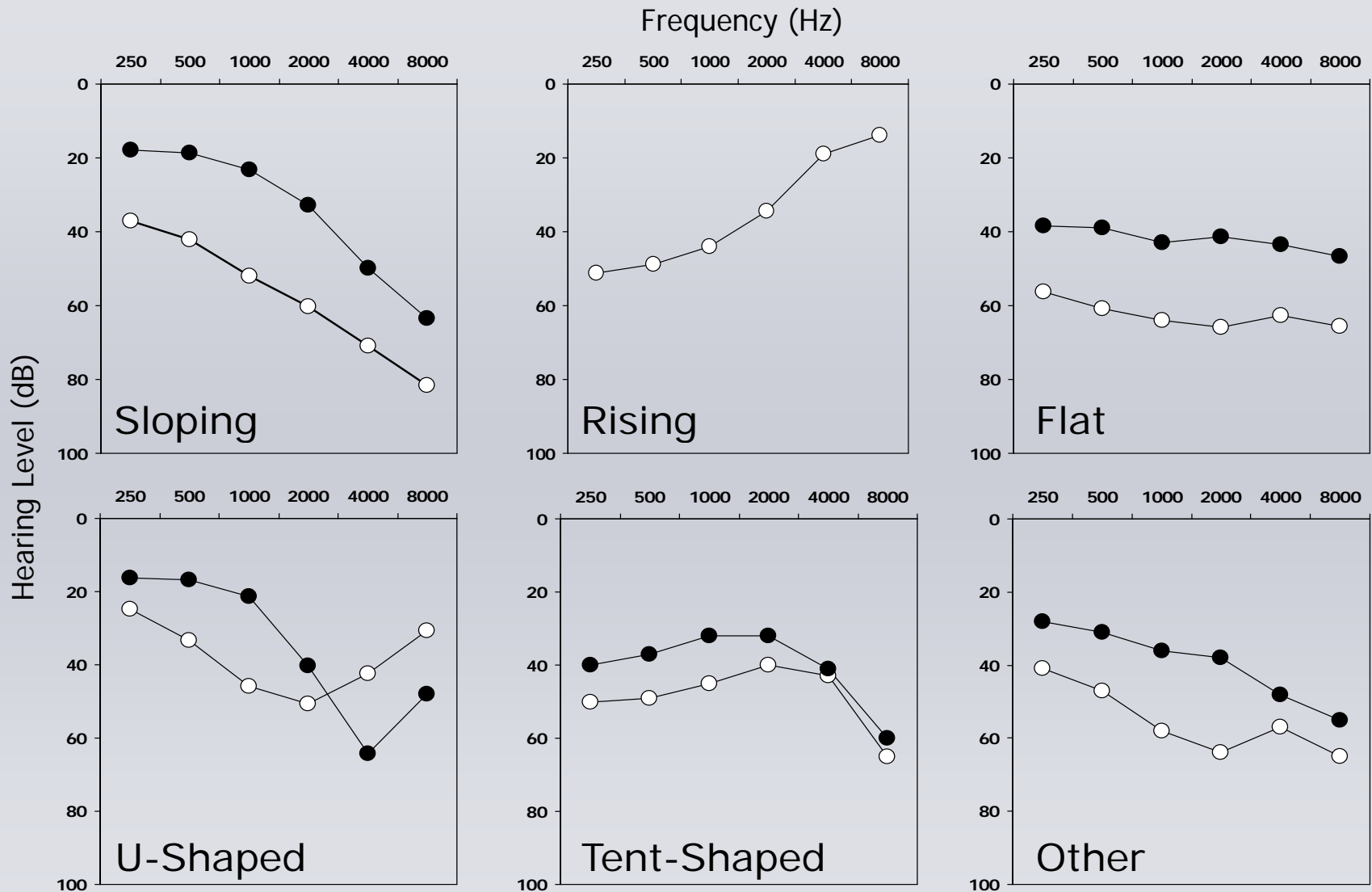


Distribution of Configurations



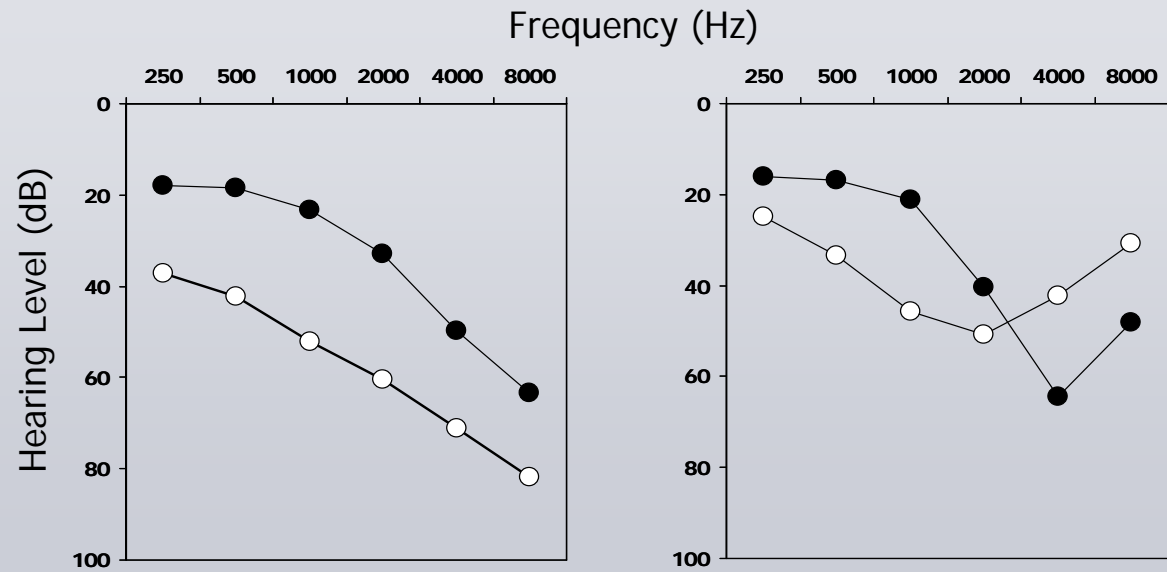
- Adults
- Children

* Sloping Losses



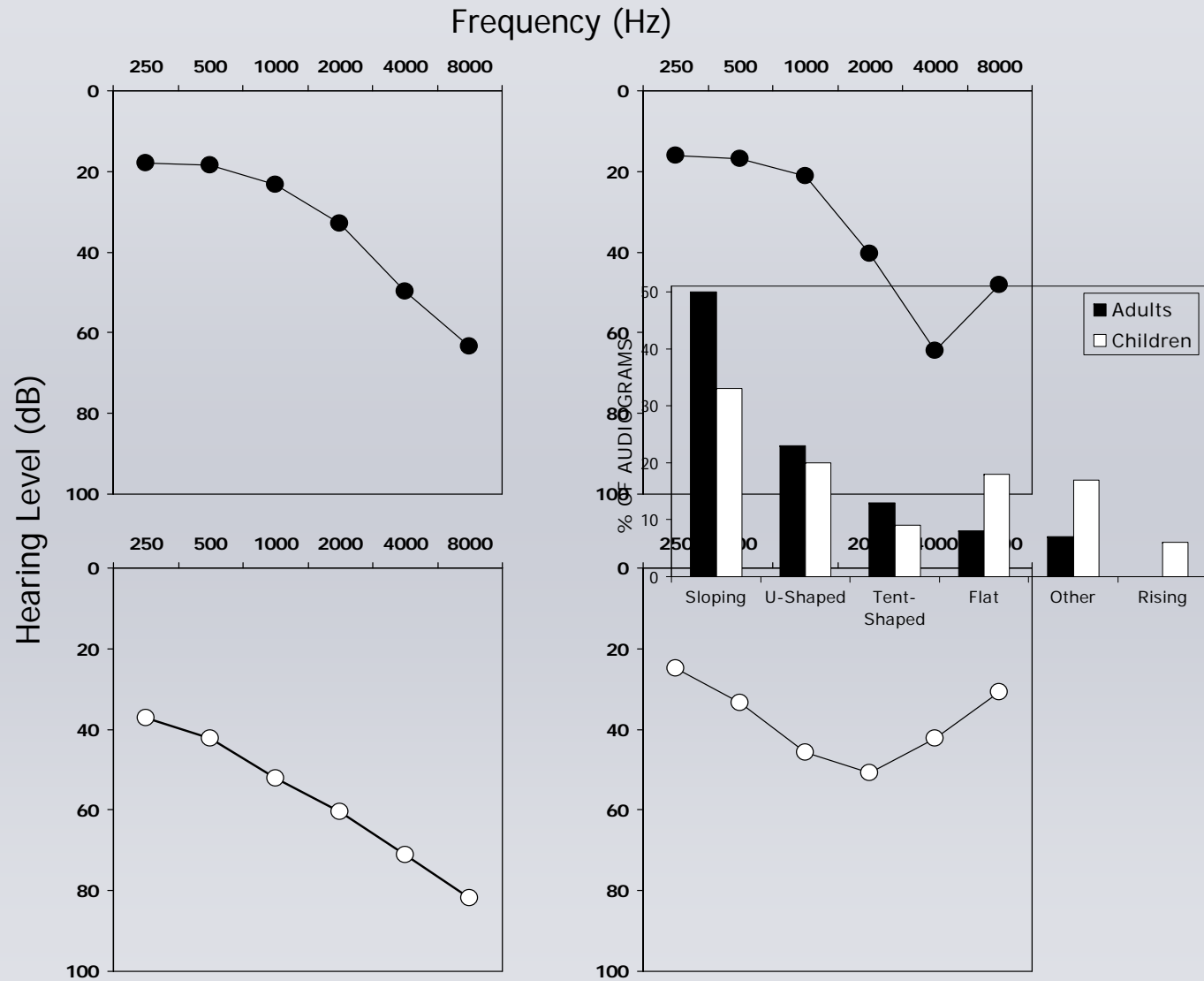
- Adults
- Children

* Sloping Losses



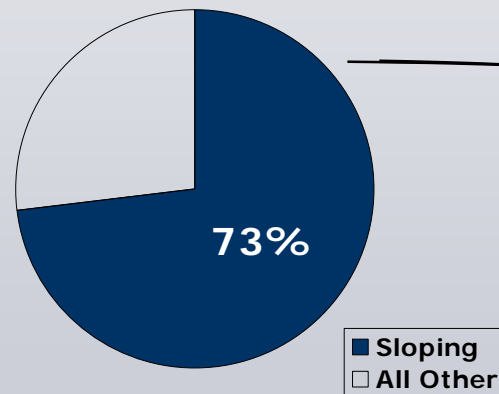
- Adults
- Children

* Sloping Losses

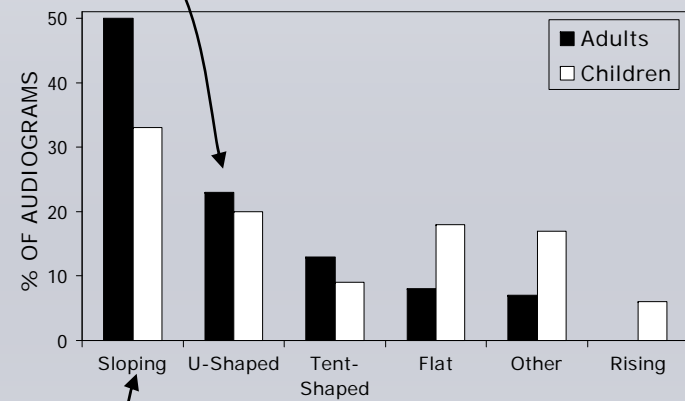
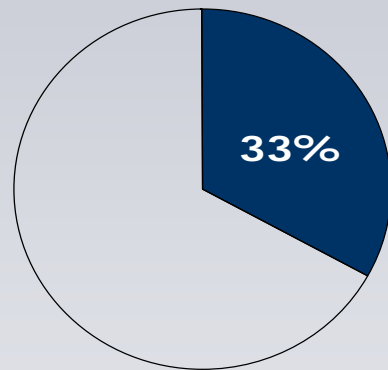


* Sloping Losses

Adults



Children



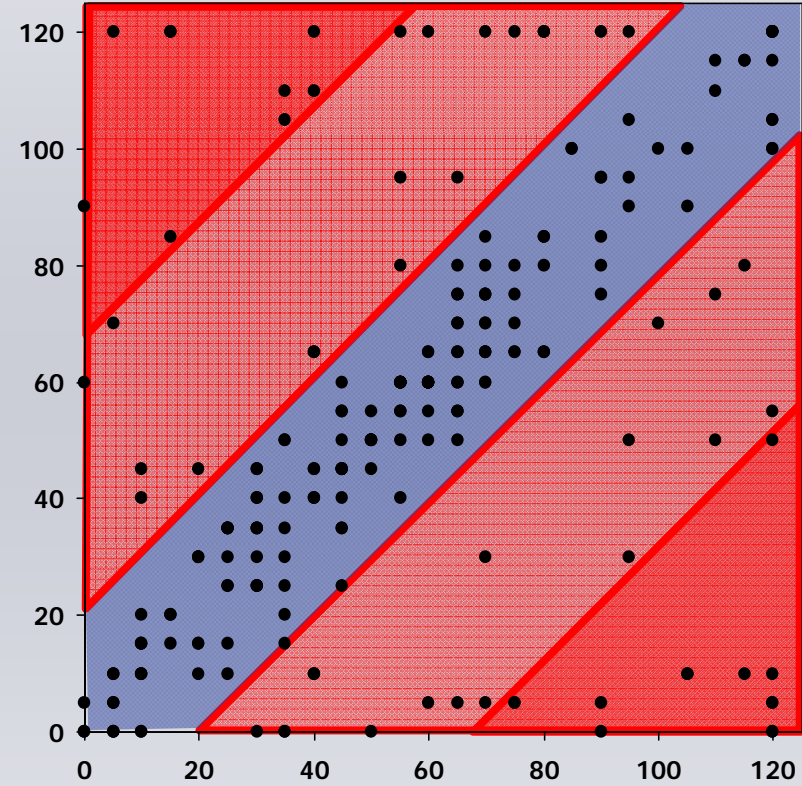
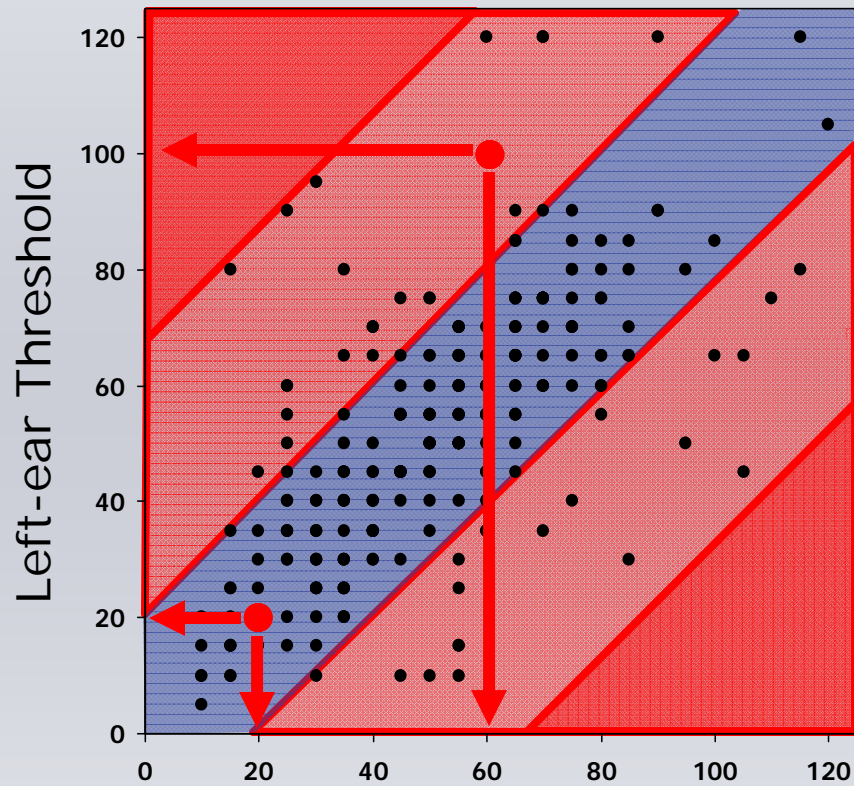
Asymmetry

Asymmetry

4000 Hz

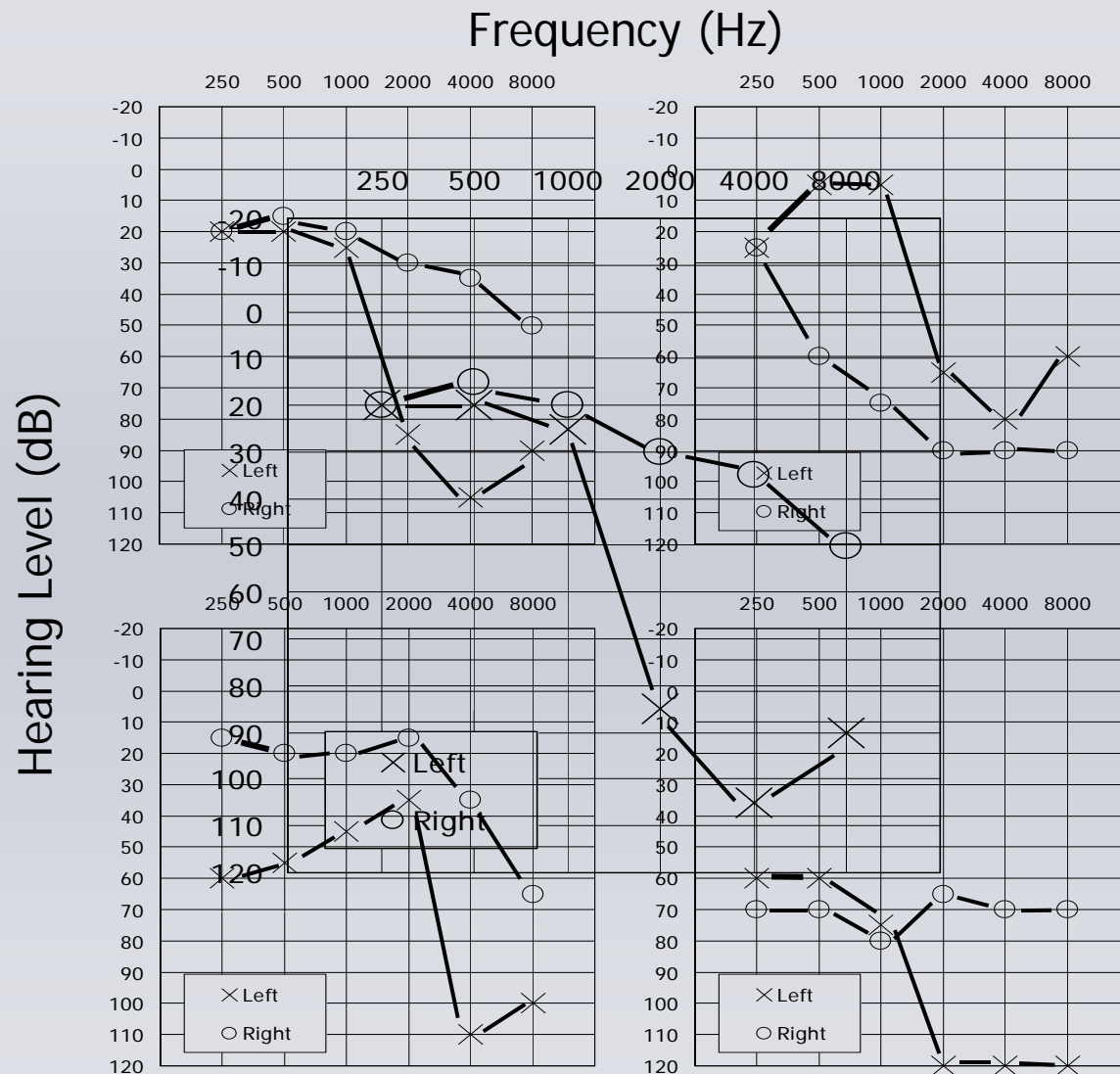
Adults

Children

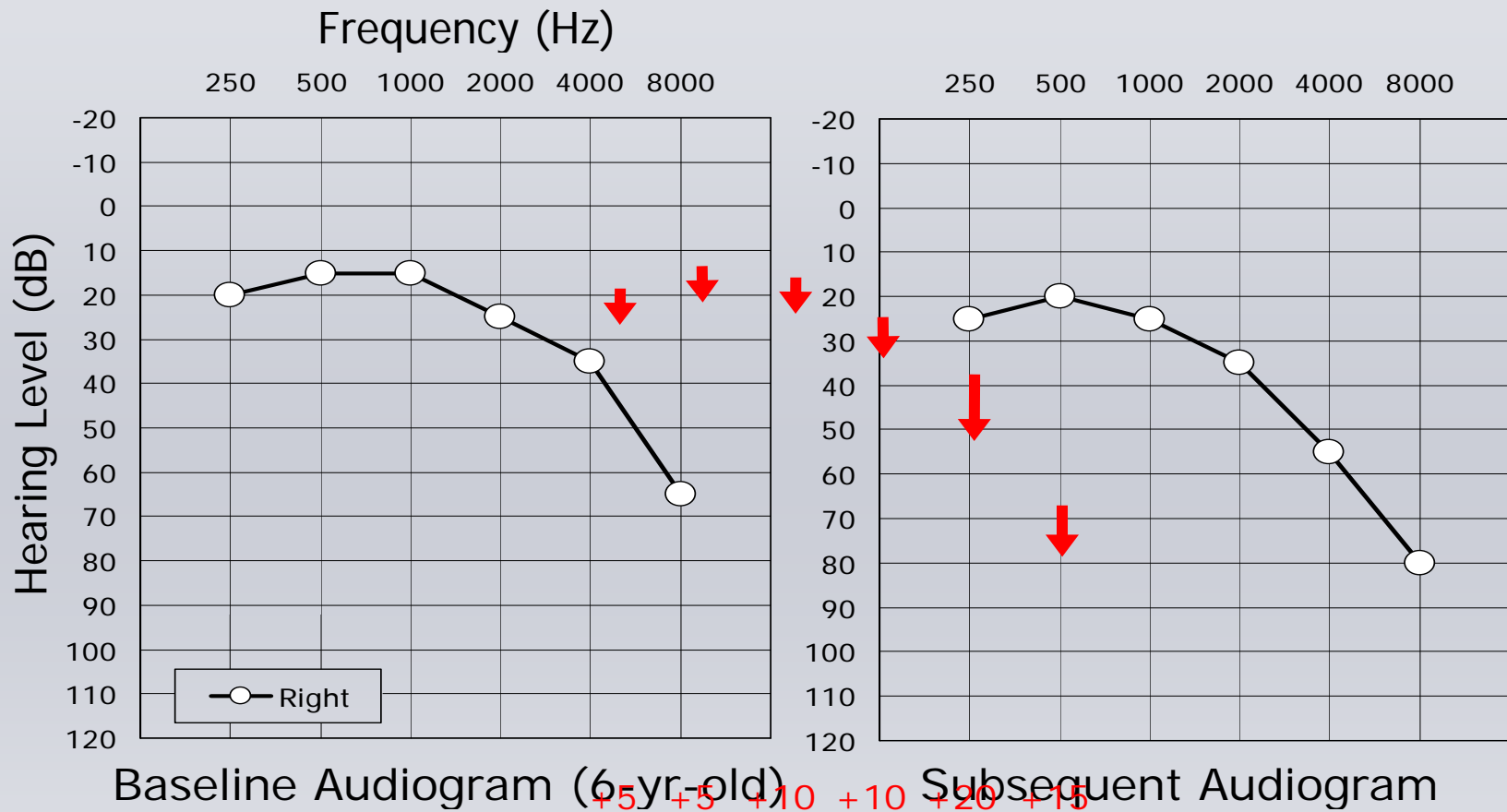


Right-ear Threshold

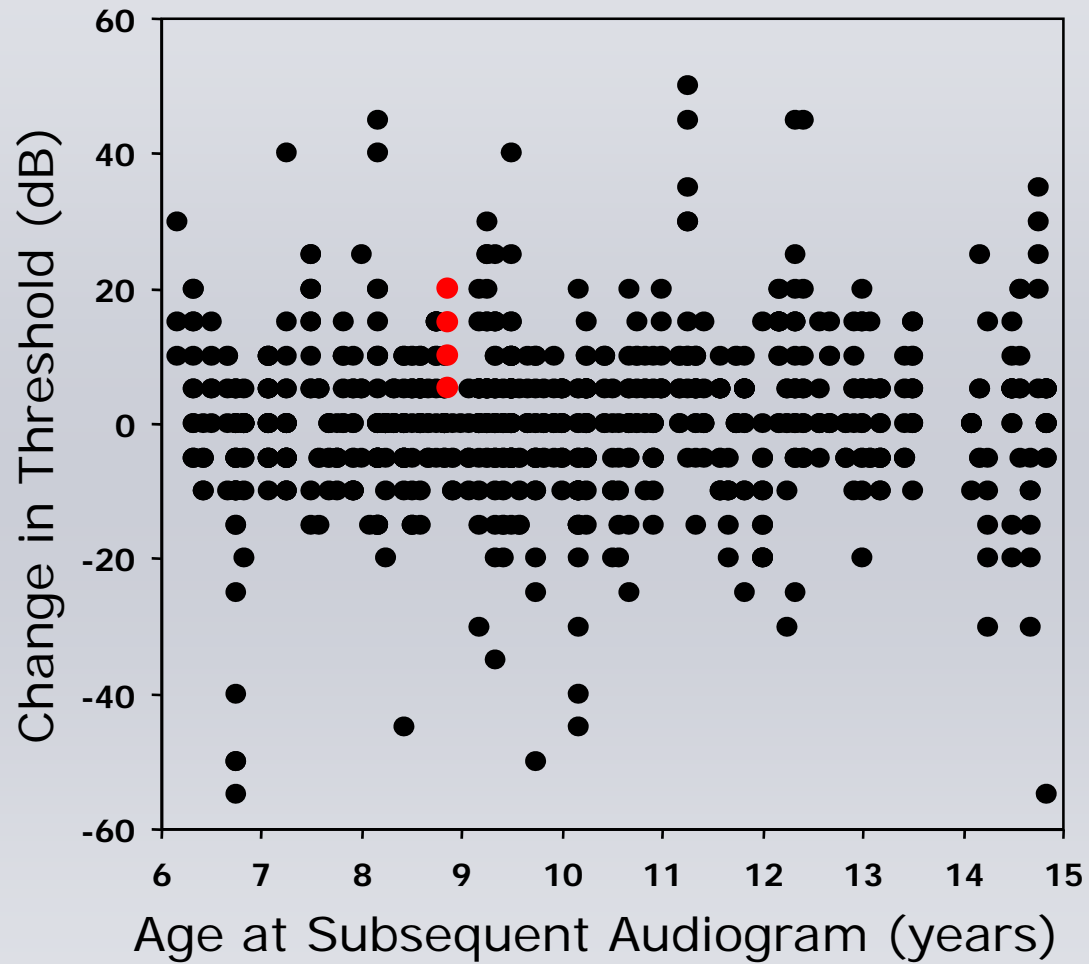
* Binaural Fitting Strategies



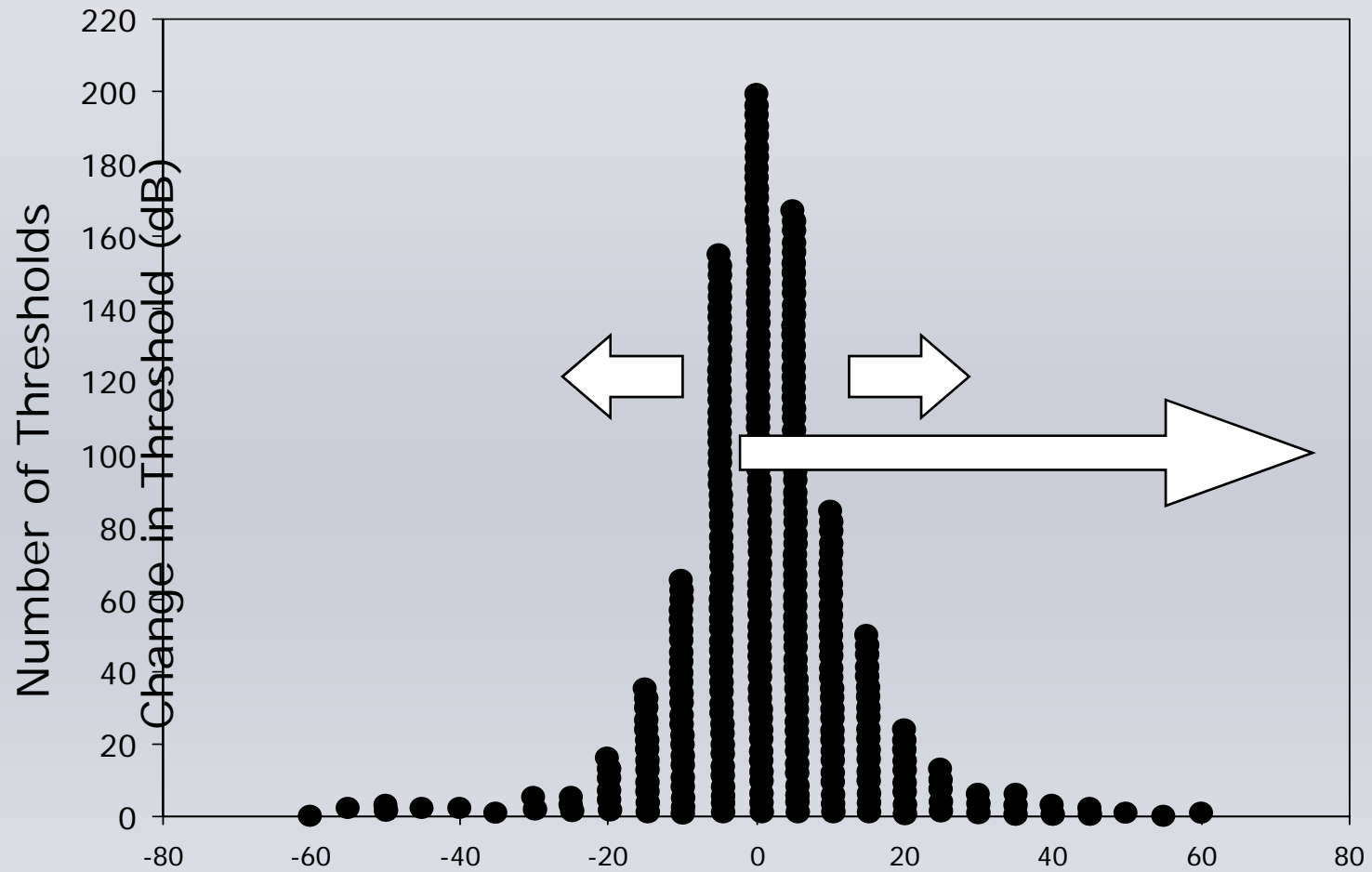
Progression



Progression



Progression



Summary

- Configuration
 - Children had a wider variety of audiometric configurations
- Asymmetry
 - More children had asymmetric losses and those asymmetries were more severe
- Progression/Fluctuation
 - Thresholds increased and decreased on subsequent audiograms

The End

