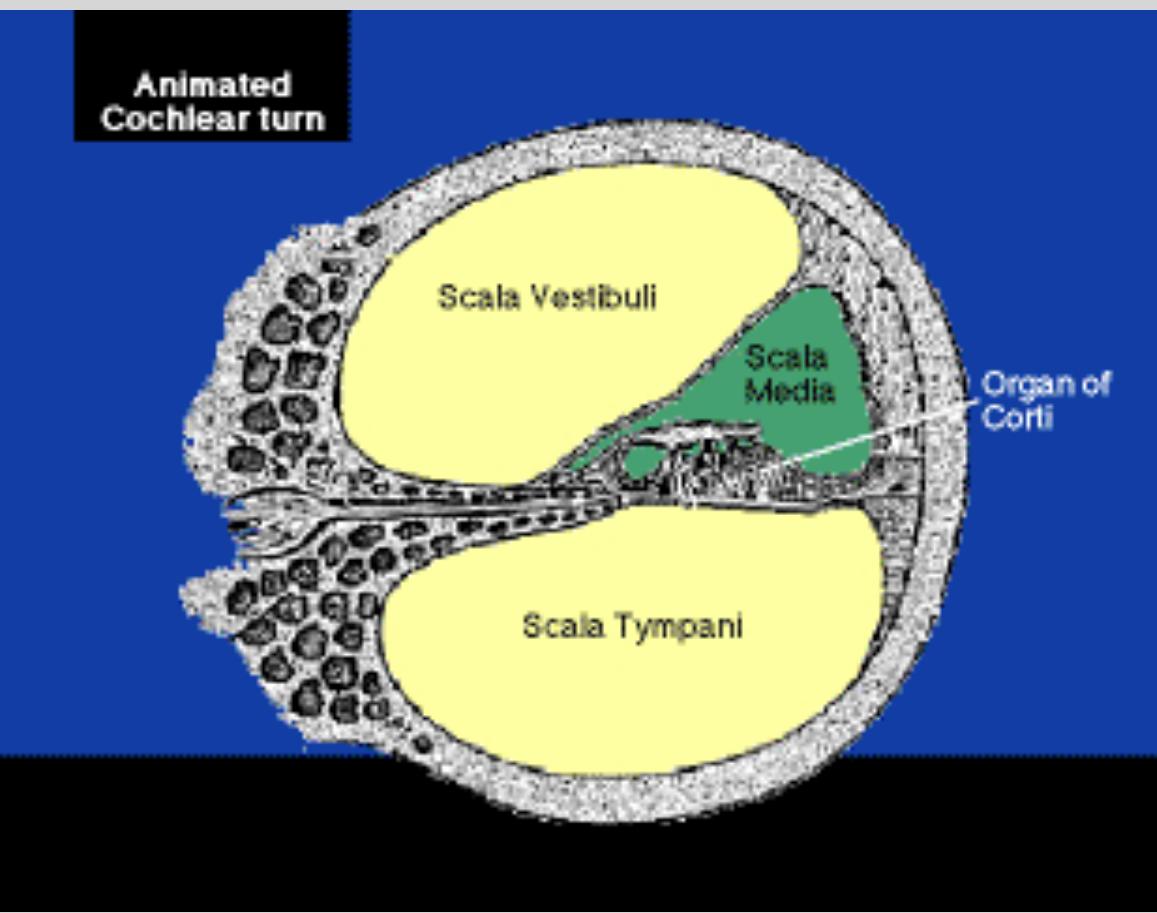


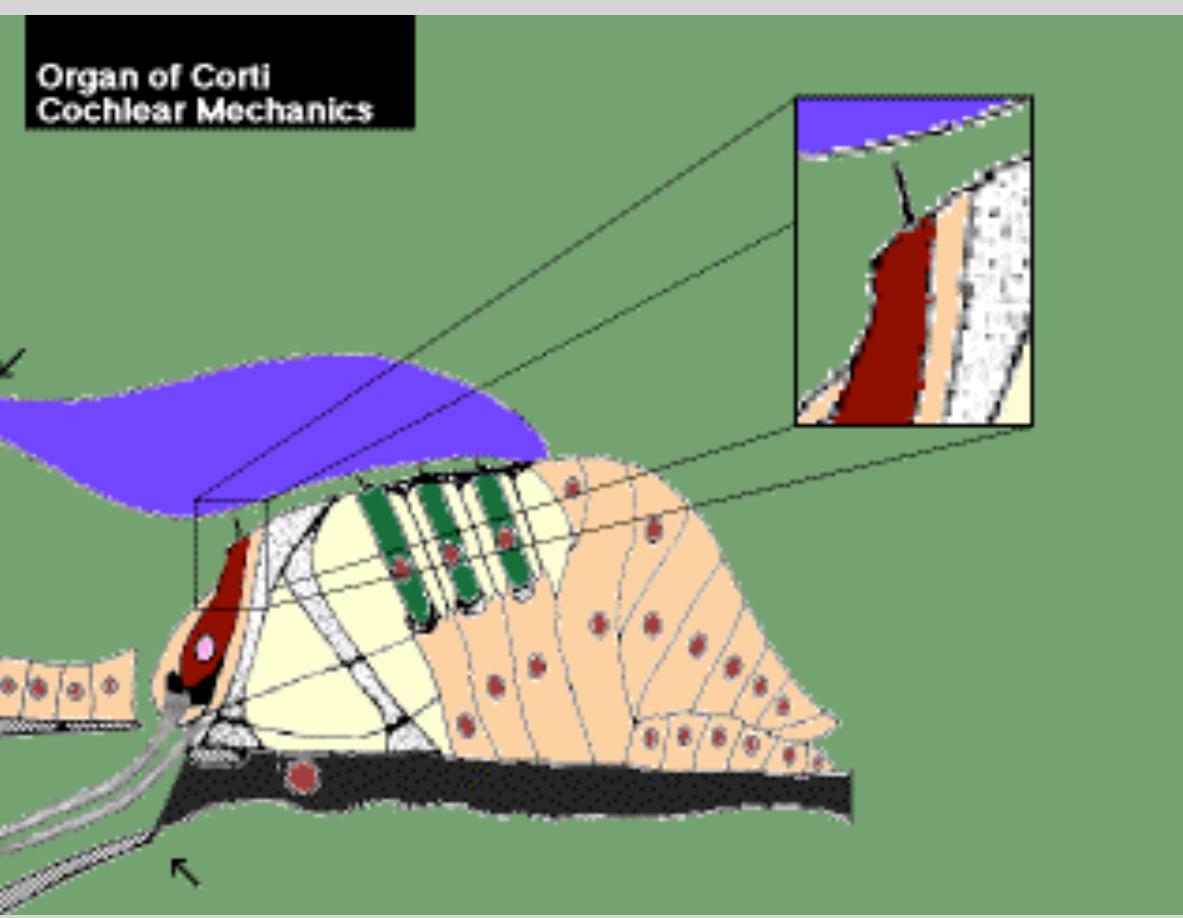
PSYC 4165 Perception

Tuesday, 17 March 2020
Zoom Presentation

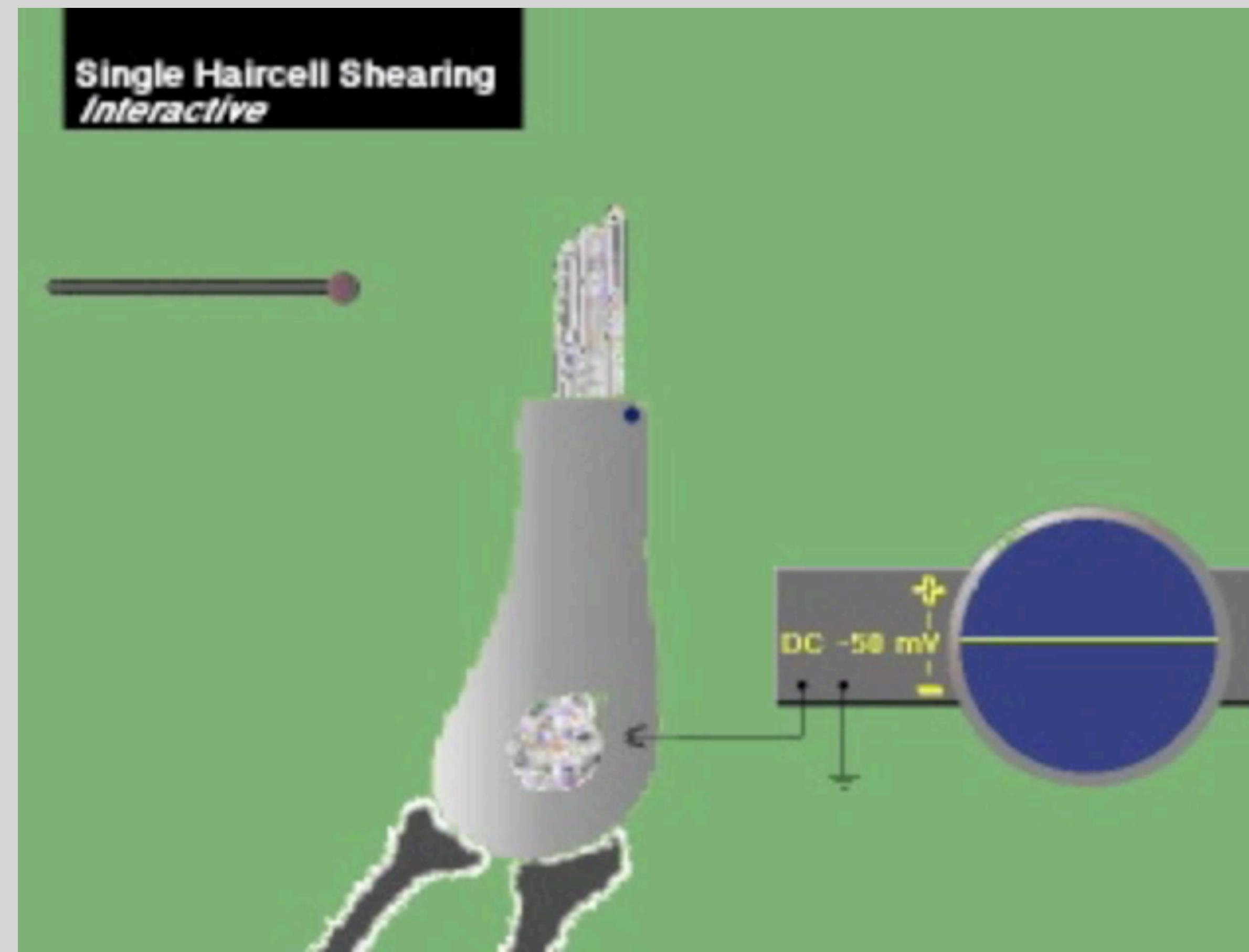
The Basilar Membrane and the Organ of Corti



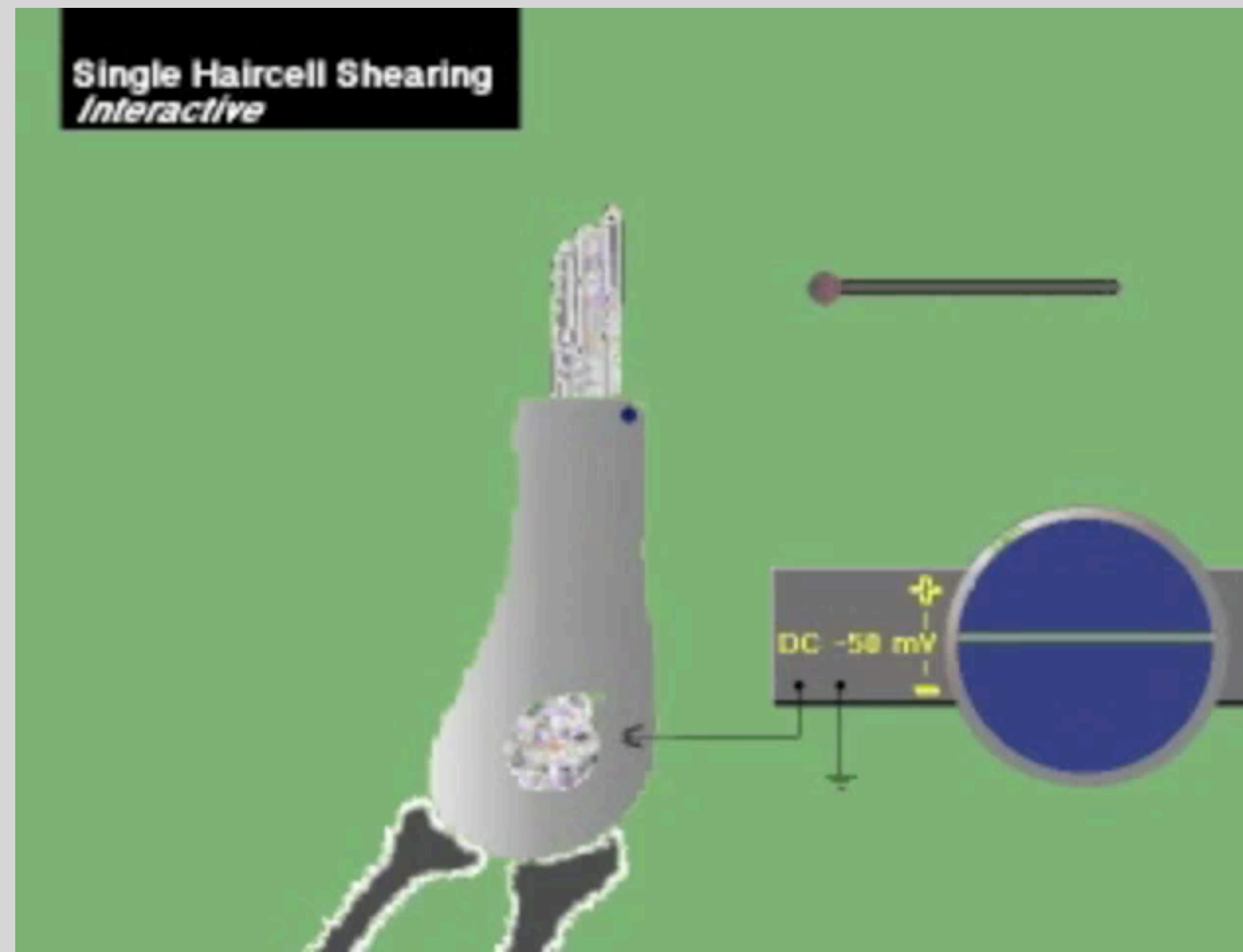
sliding motion



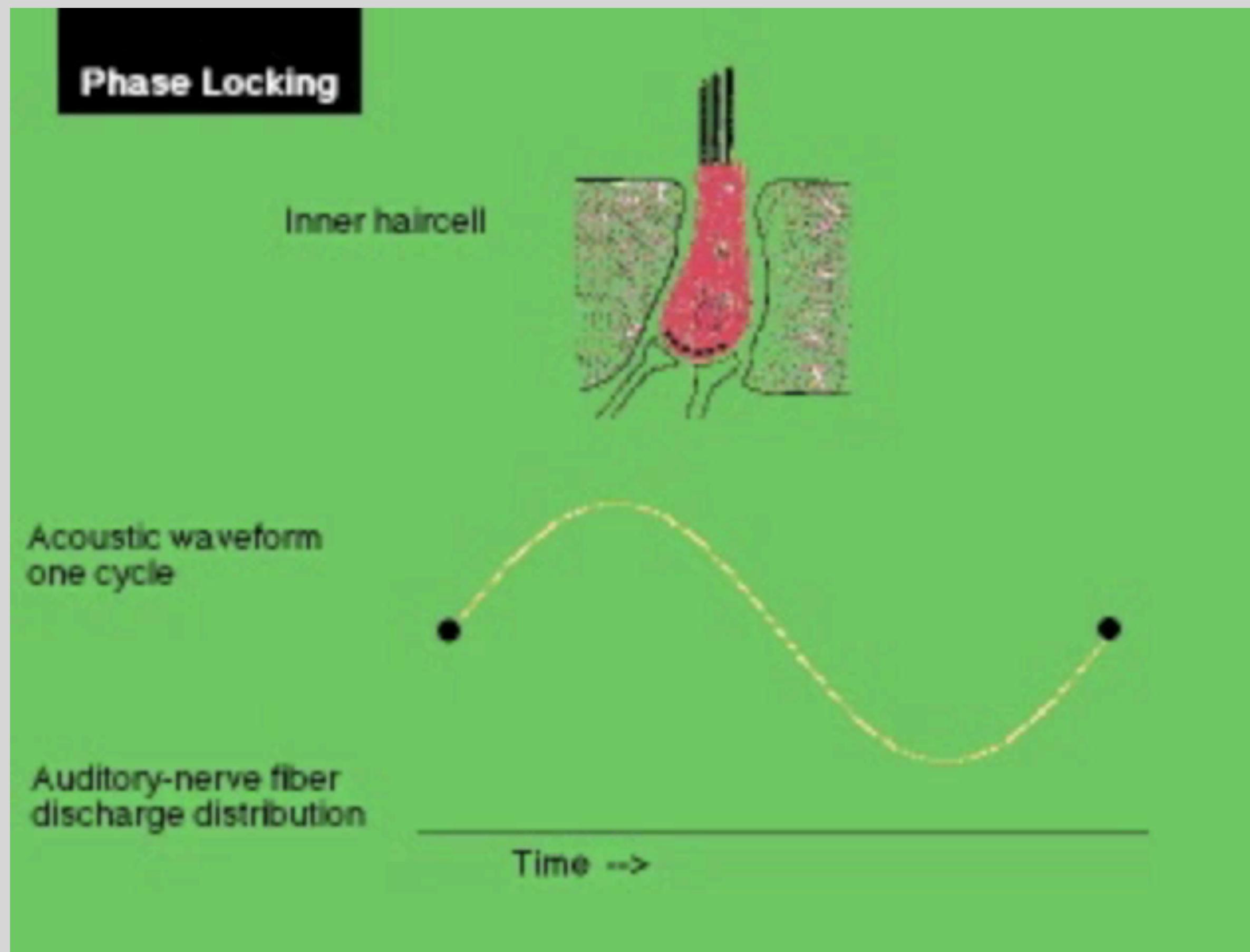
Excitation of Inner Hair Cell



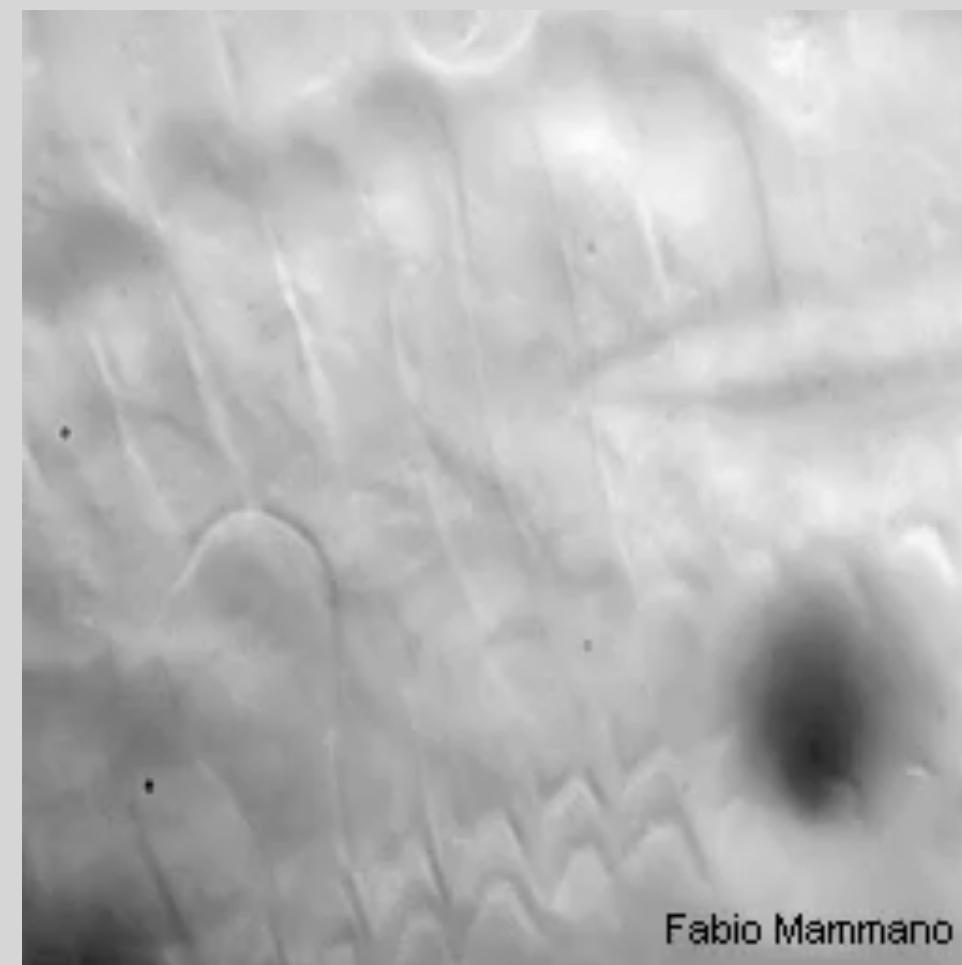
Inhibition of Inner Hair Cell

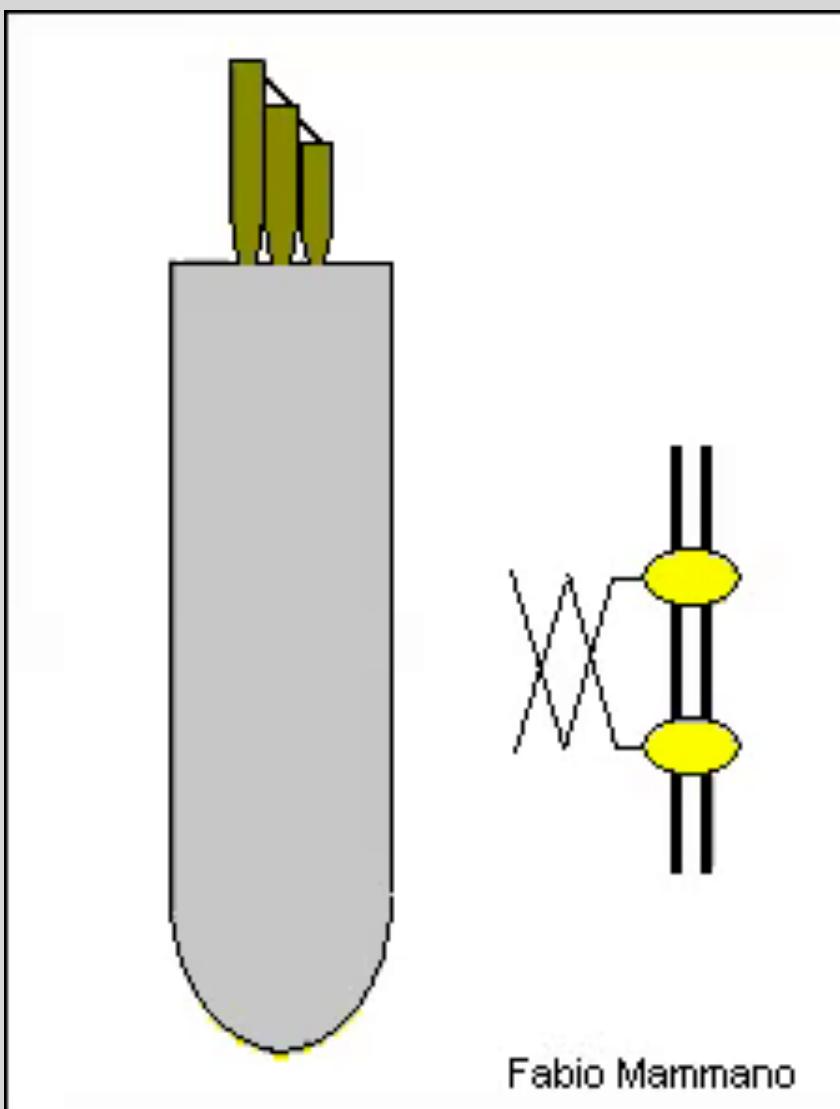


Phase Locked Response



Outer Hair Cells





Fabio Mammano



Outer Hair Cell Motility



Jonathan Ashmore
(1987)



Bill Haley and the Comets
(1956)

Ciliated Nasal Epithelium

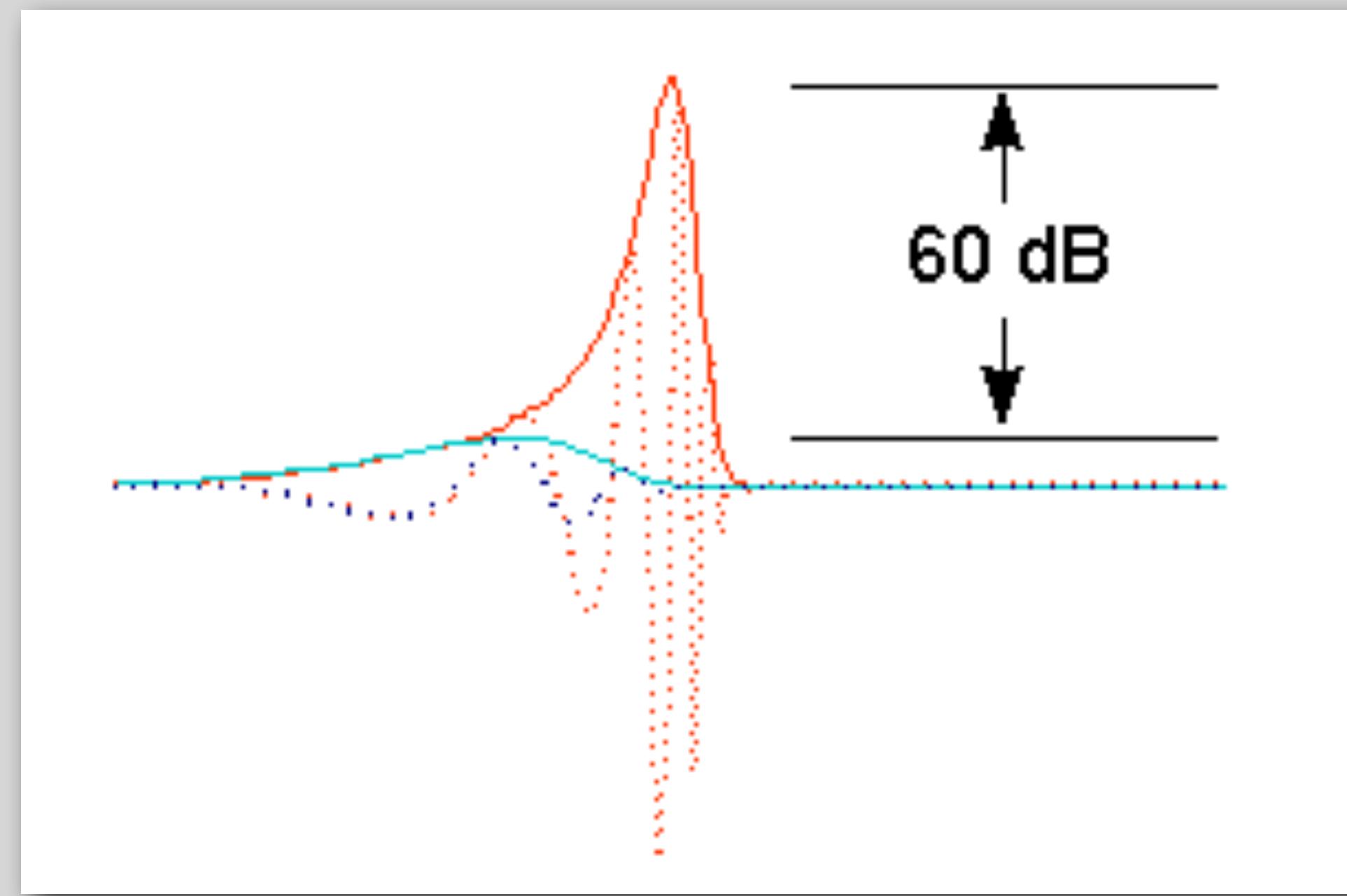
Ciliated Epithelial Cells

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University of Leicester
2001.

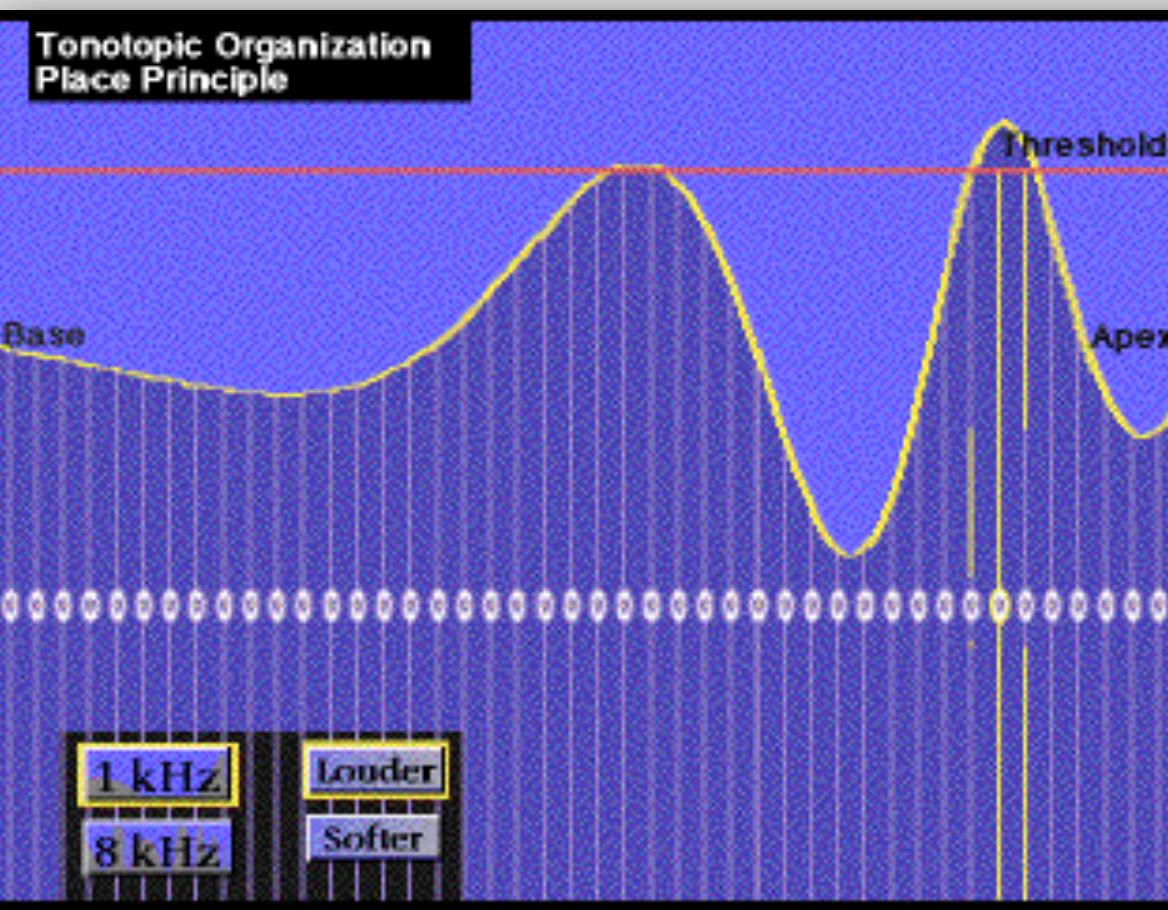
What is the Effect of Outer Hair Cells?



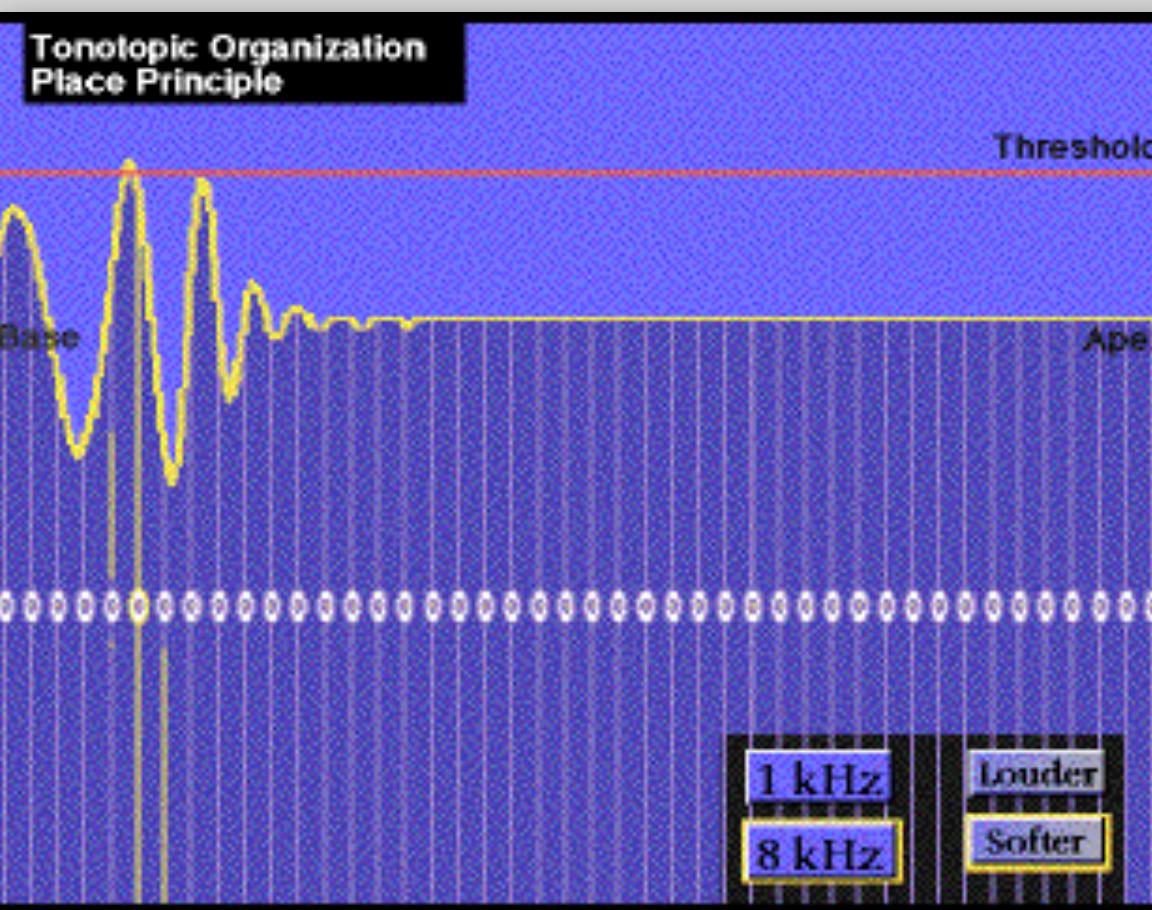
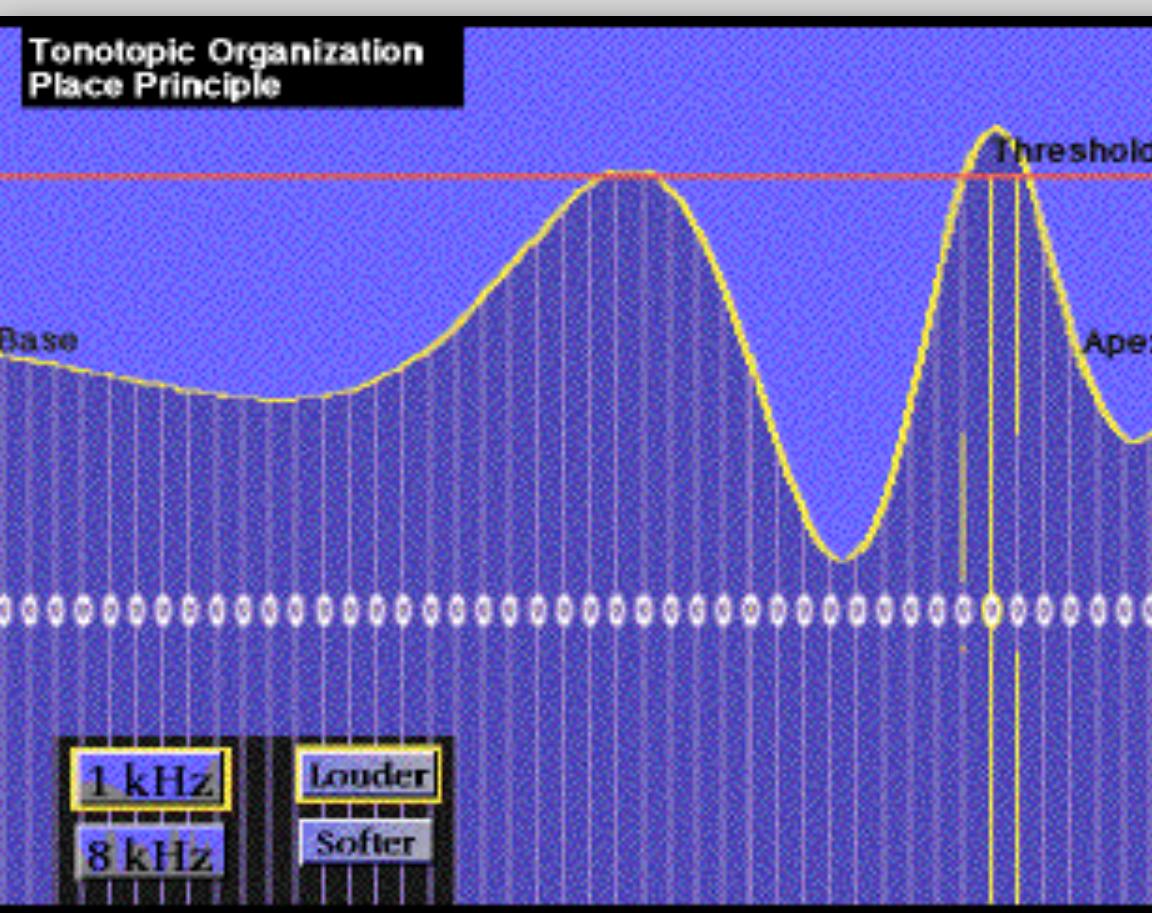
Outer Hair Cells Amplify the Motion of the Basilar Membrane



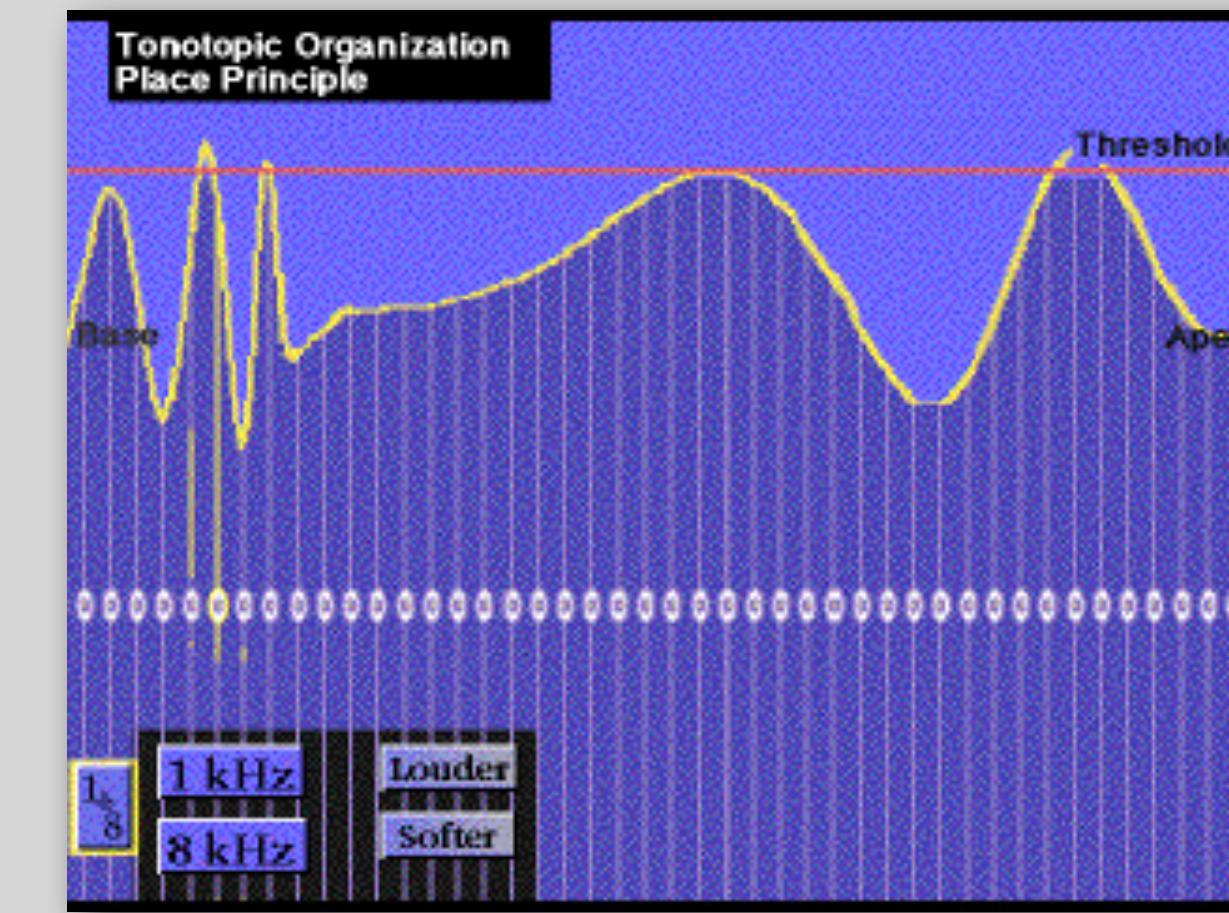
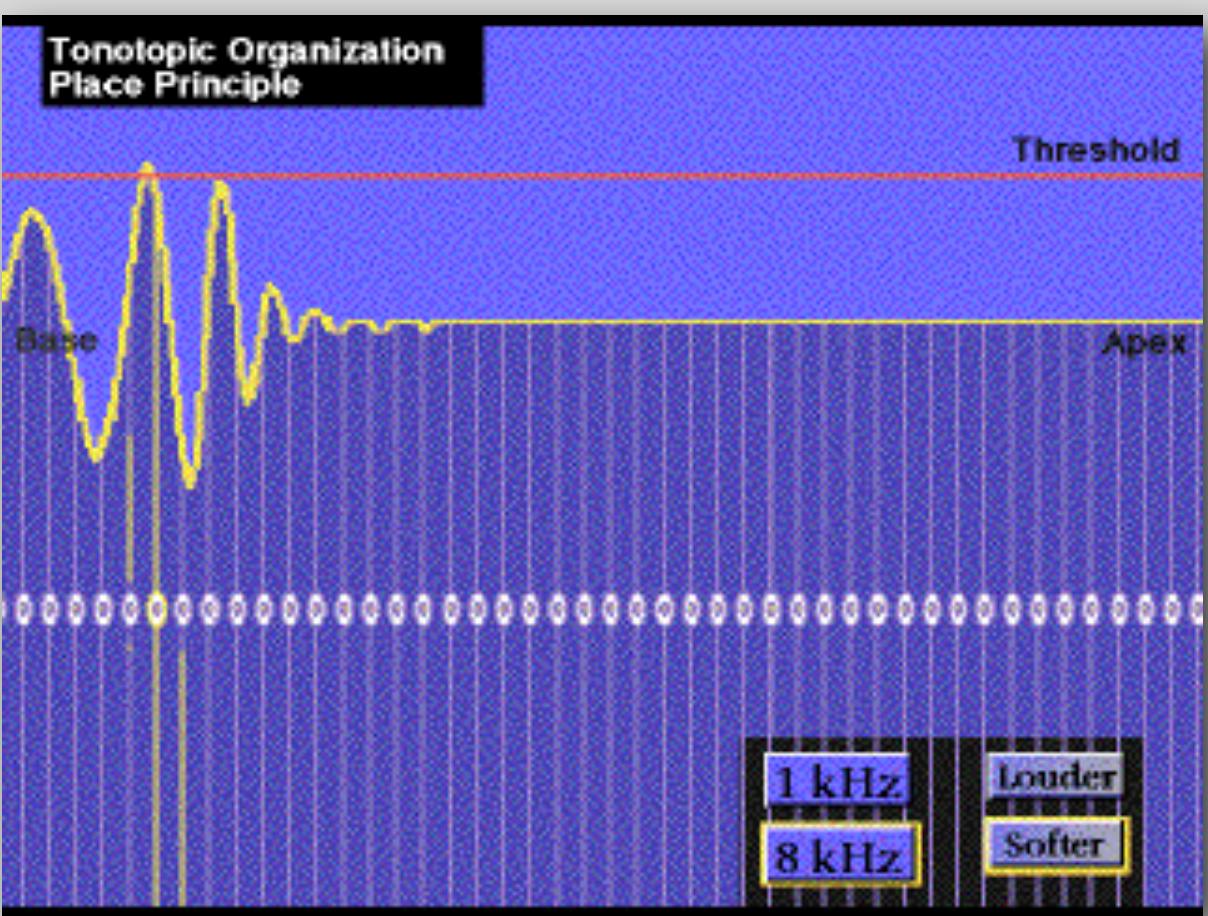
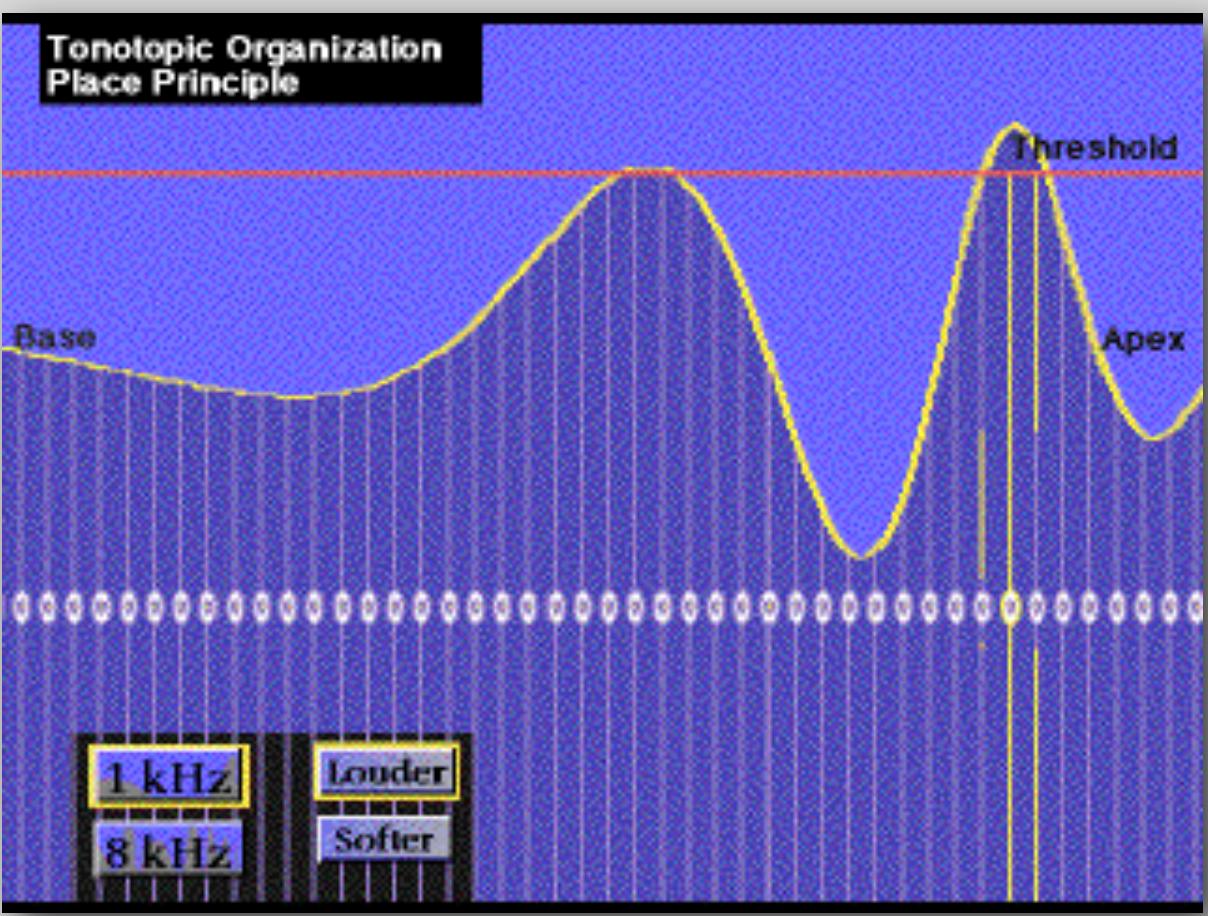
Place Principle of Frequency Encoding

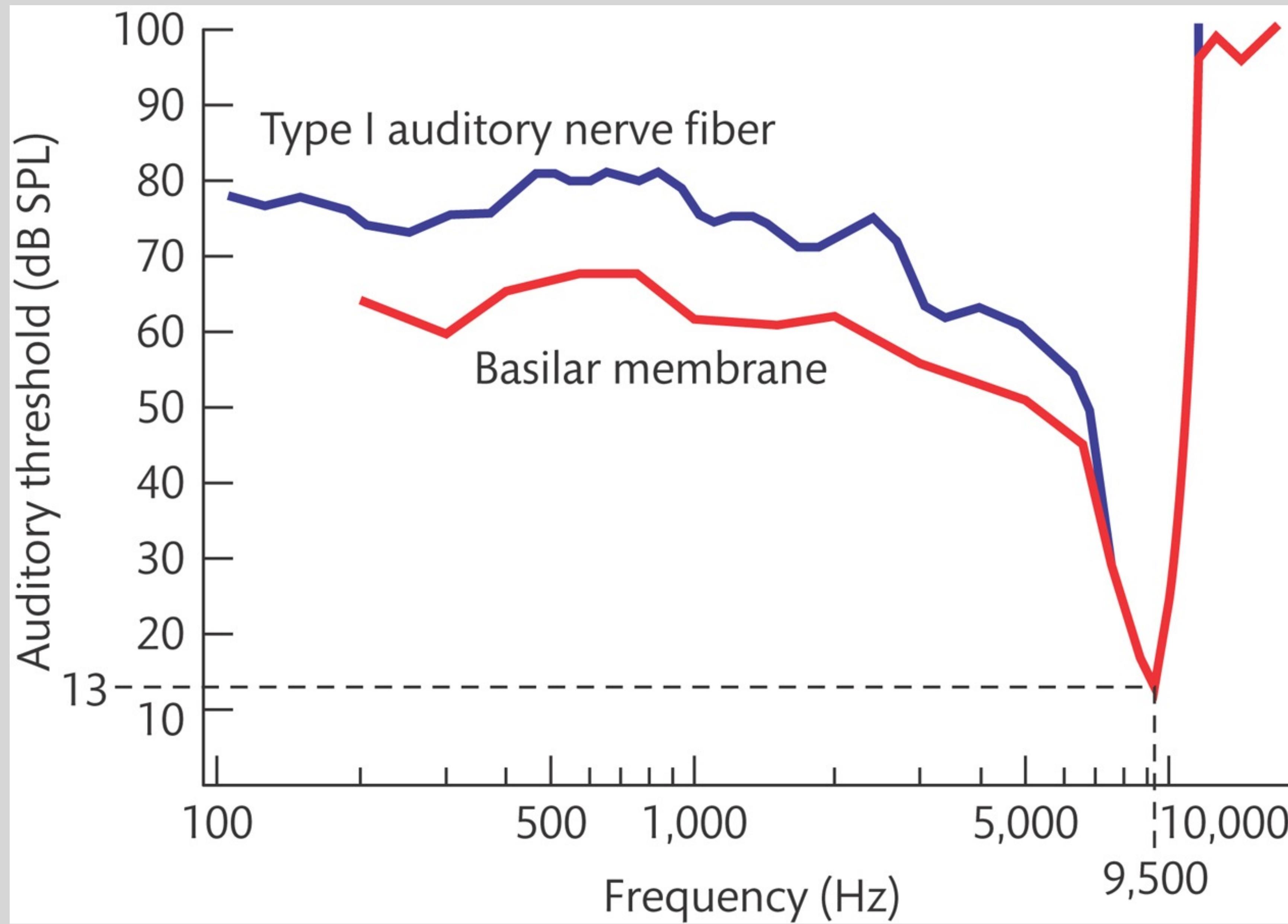


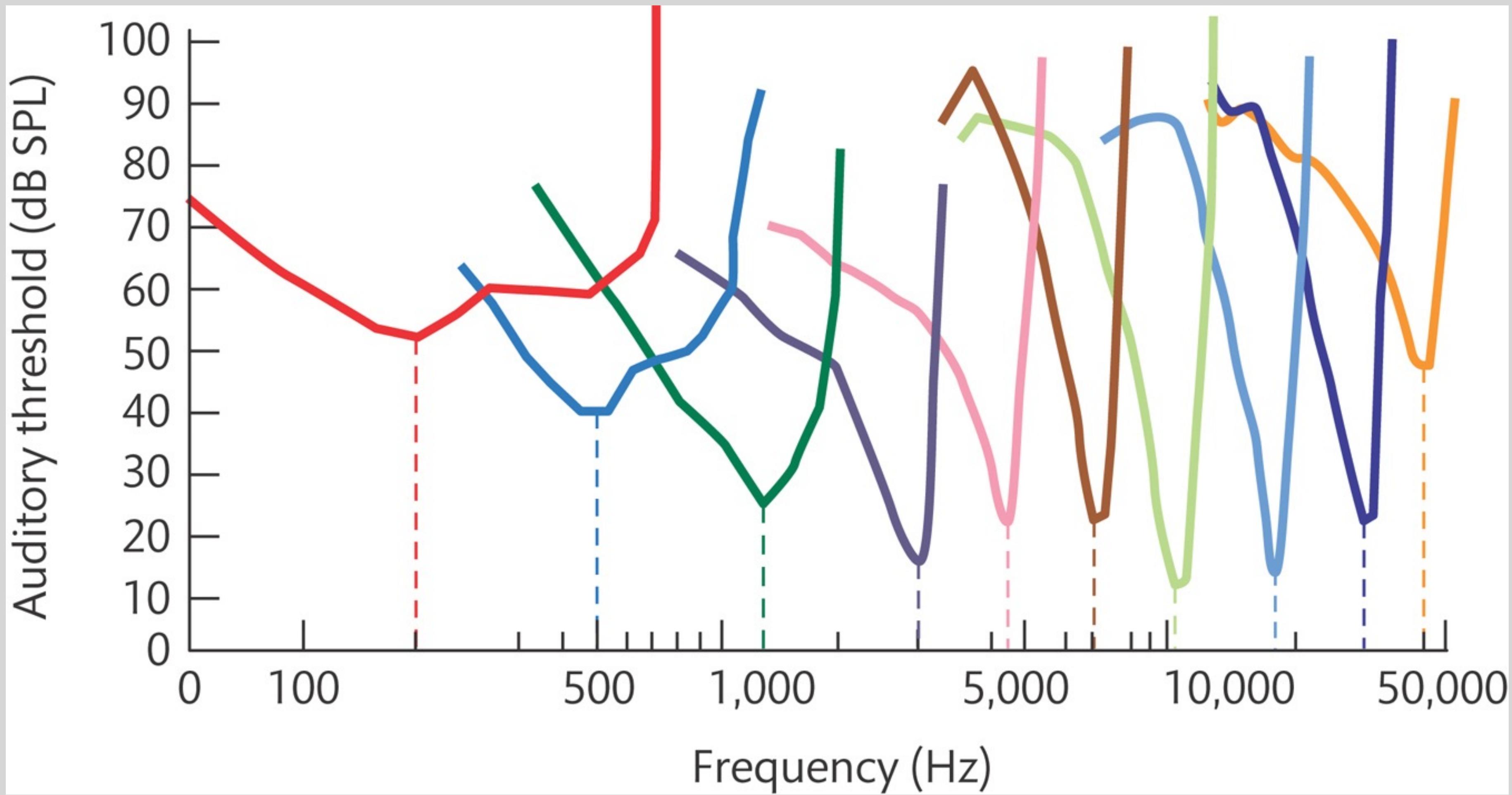
Place Principle of Frequency Encoding



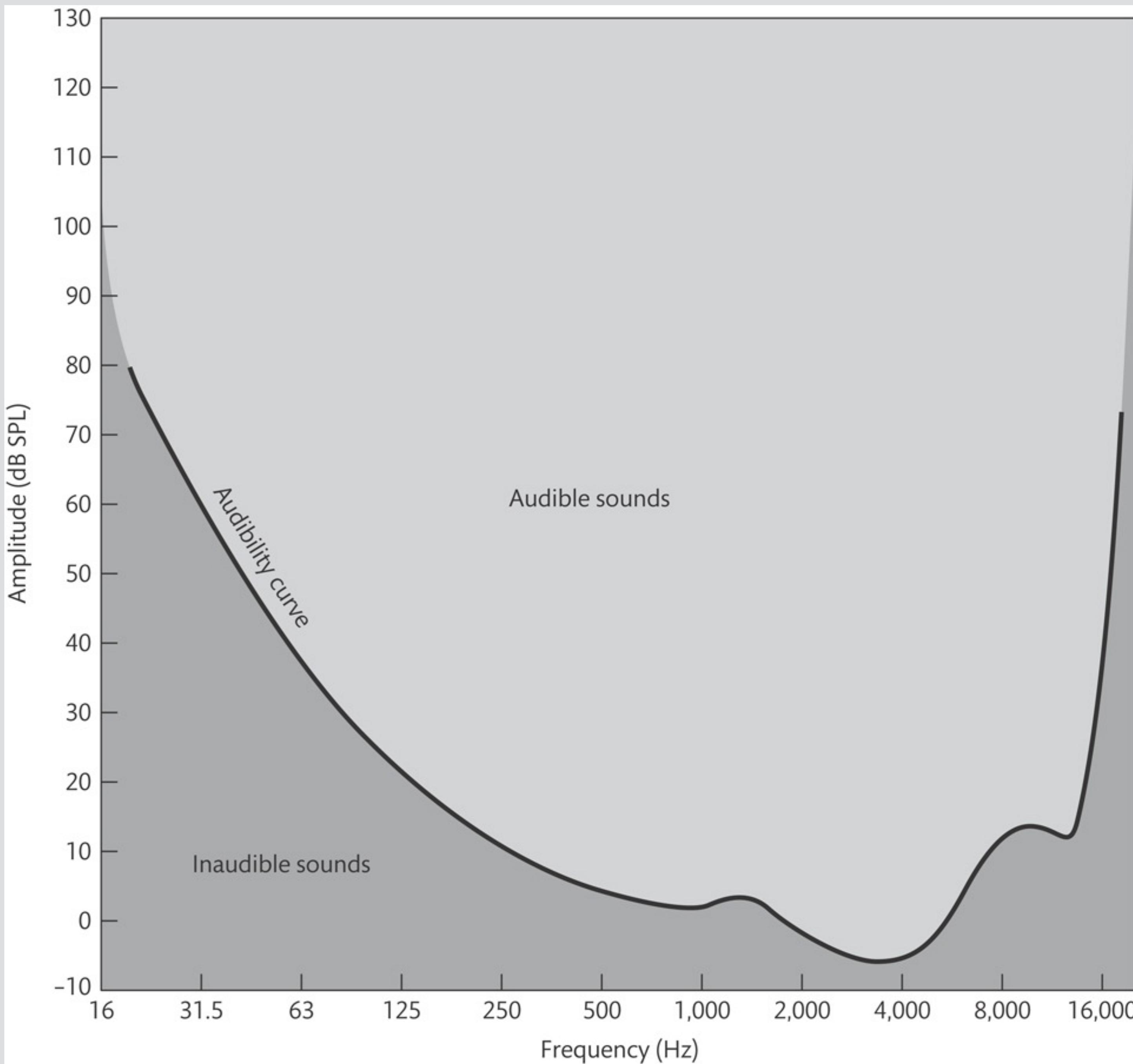
Place Principle of Frequency Encoding

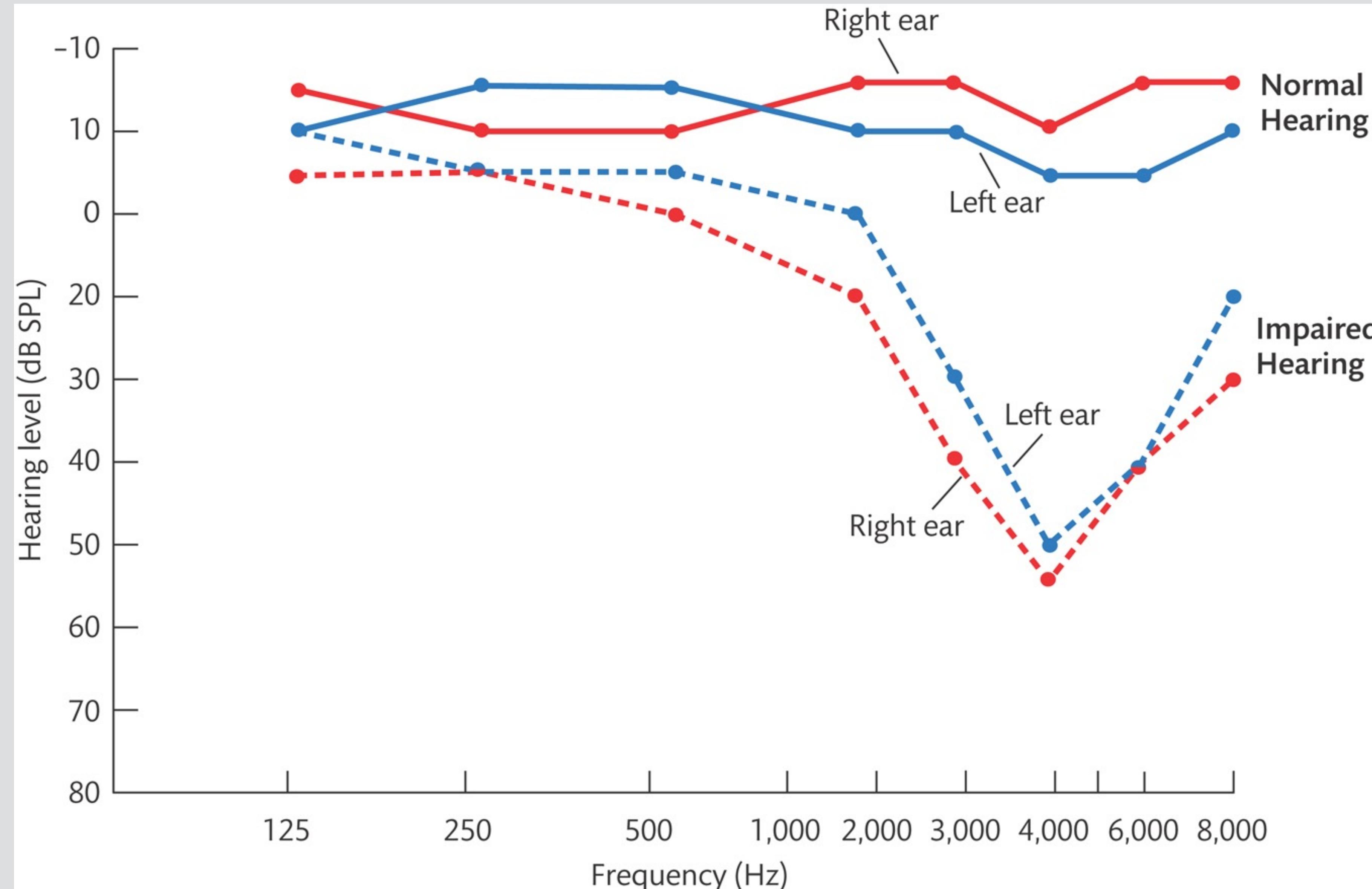


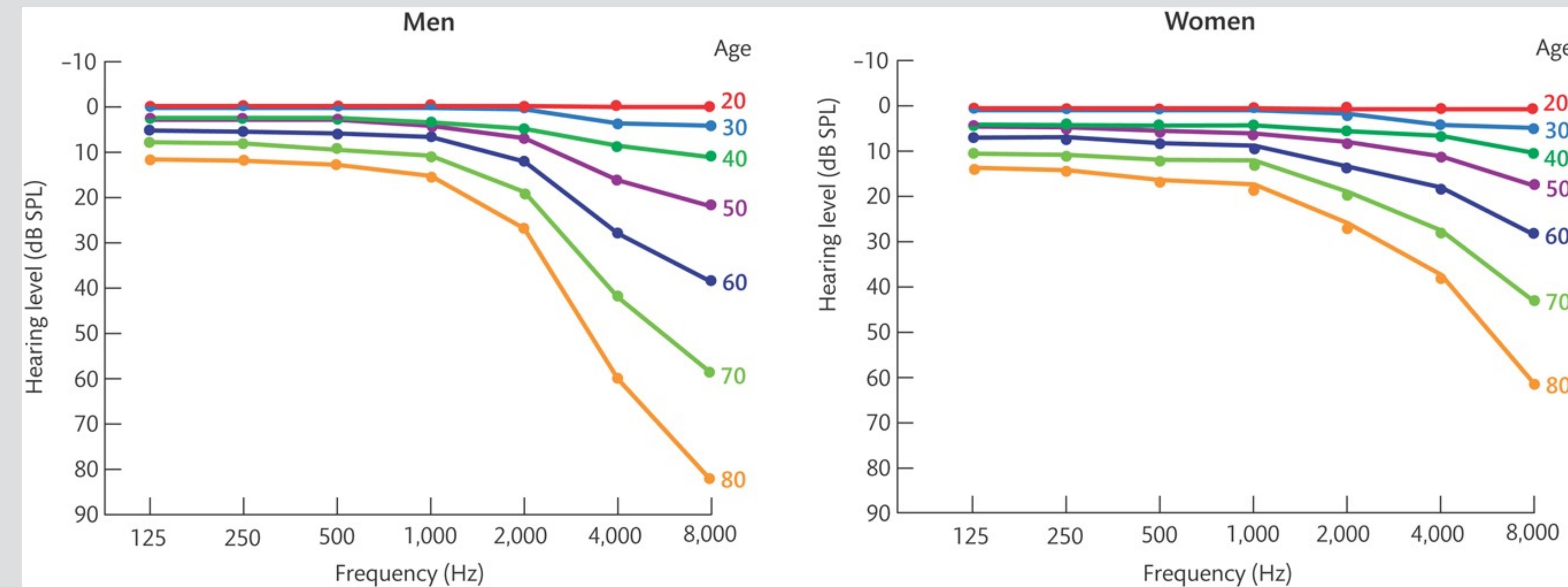




Hearing Loss







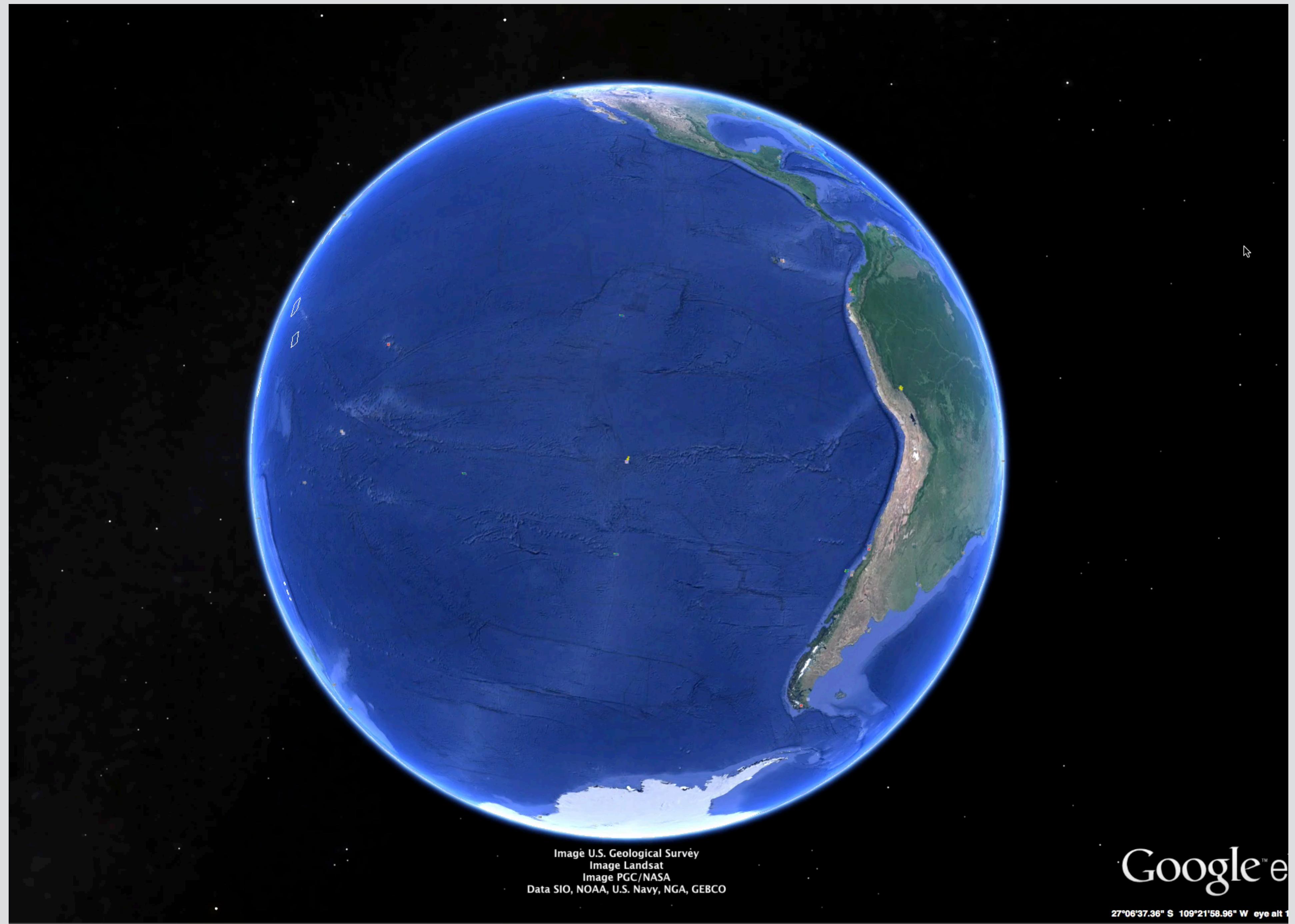
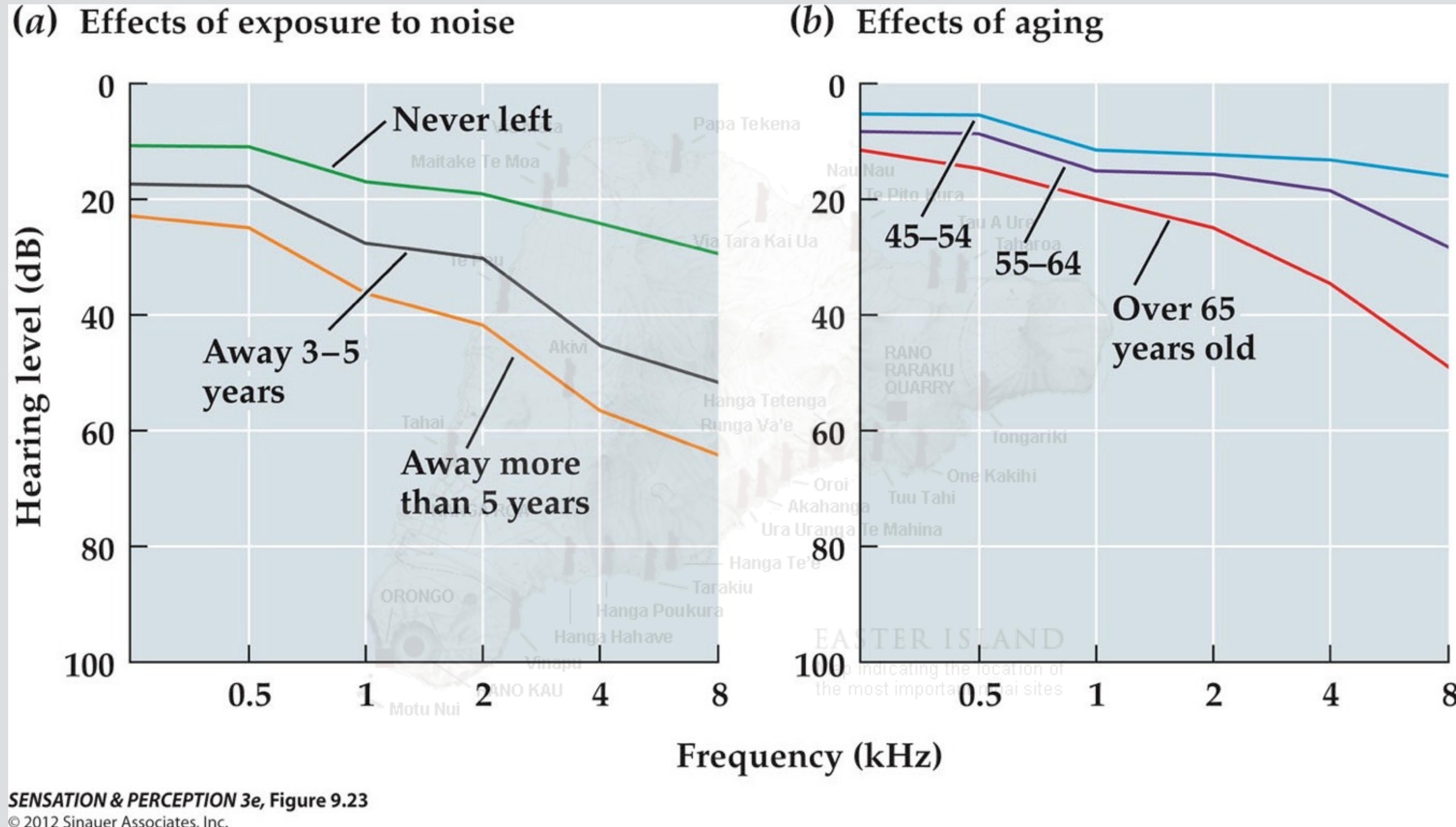


Image U.S. Geological Survey
Image Landsat
Image PGC/NASA
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Google™ e

27°06'37.36" S 109°21'58.96" W eye alt 1

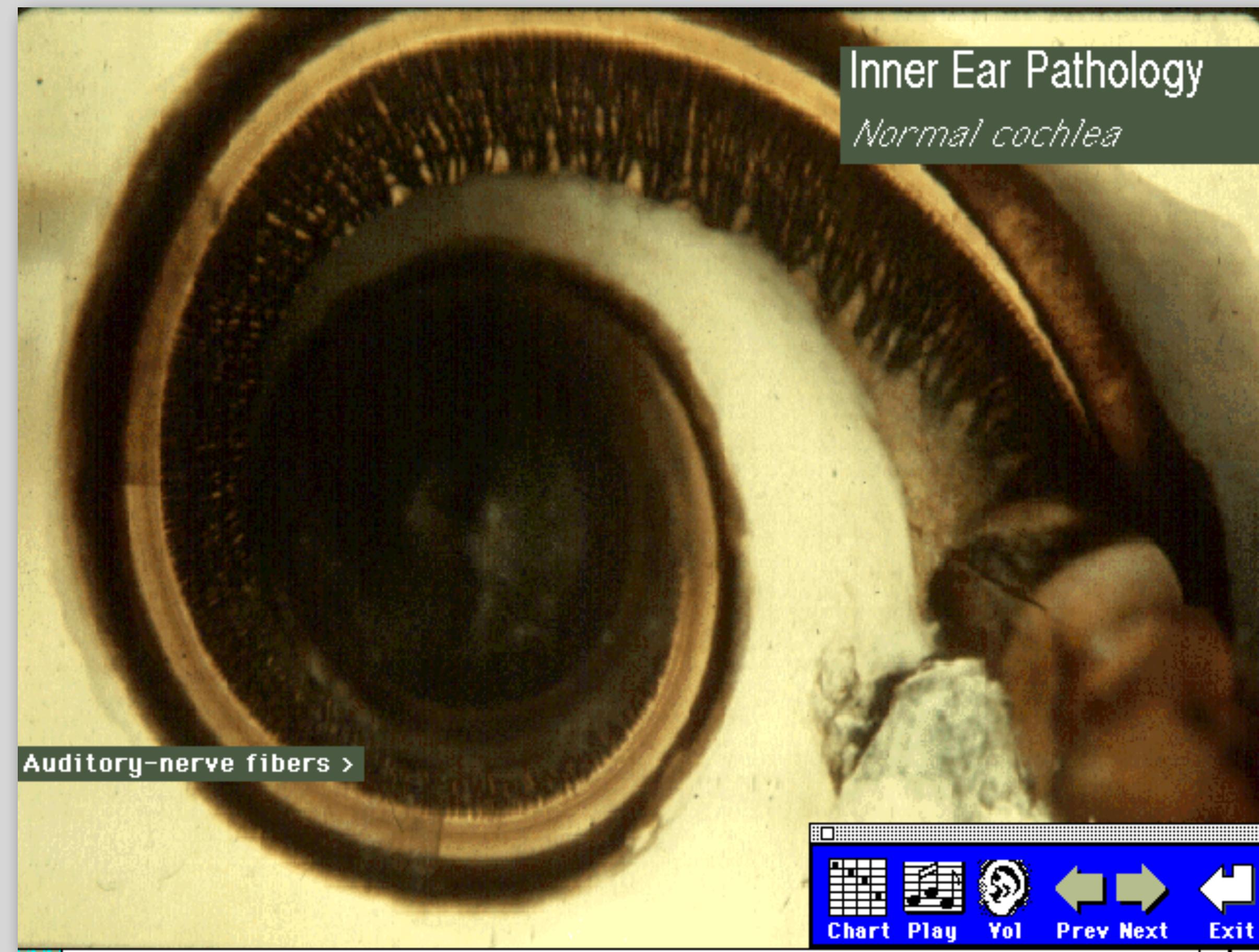
Rapa Nui Islanders



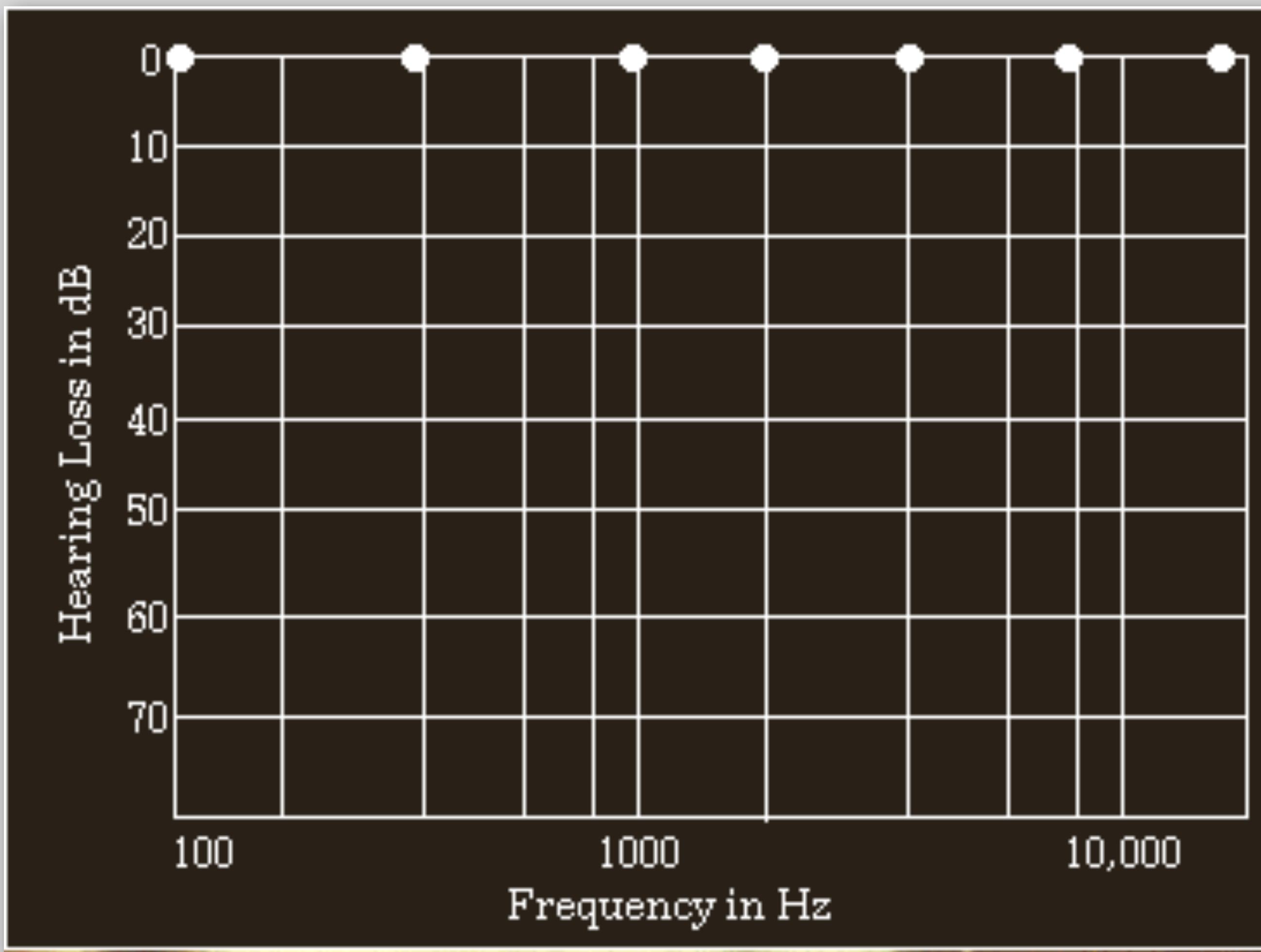
SENSATION & PERCEPTION 3e, Figure 9.23

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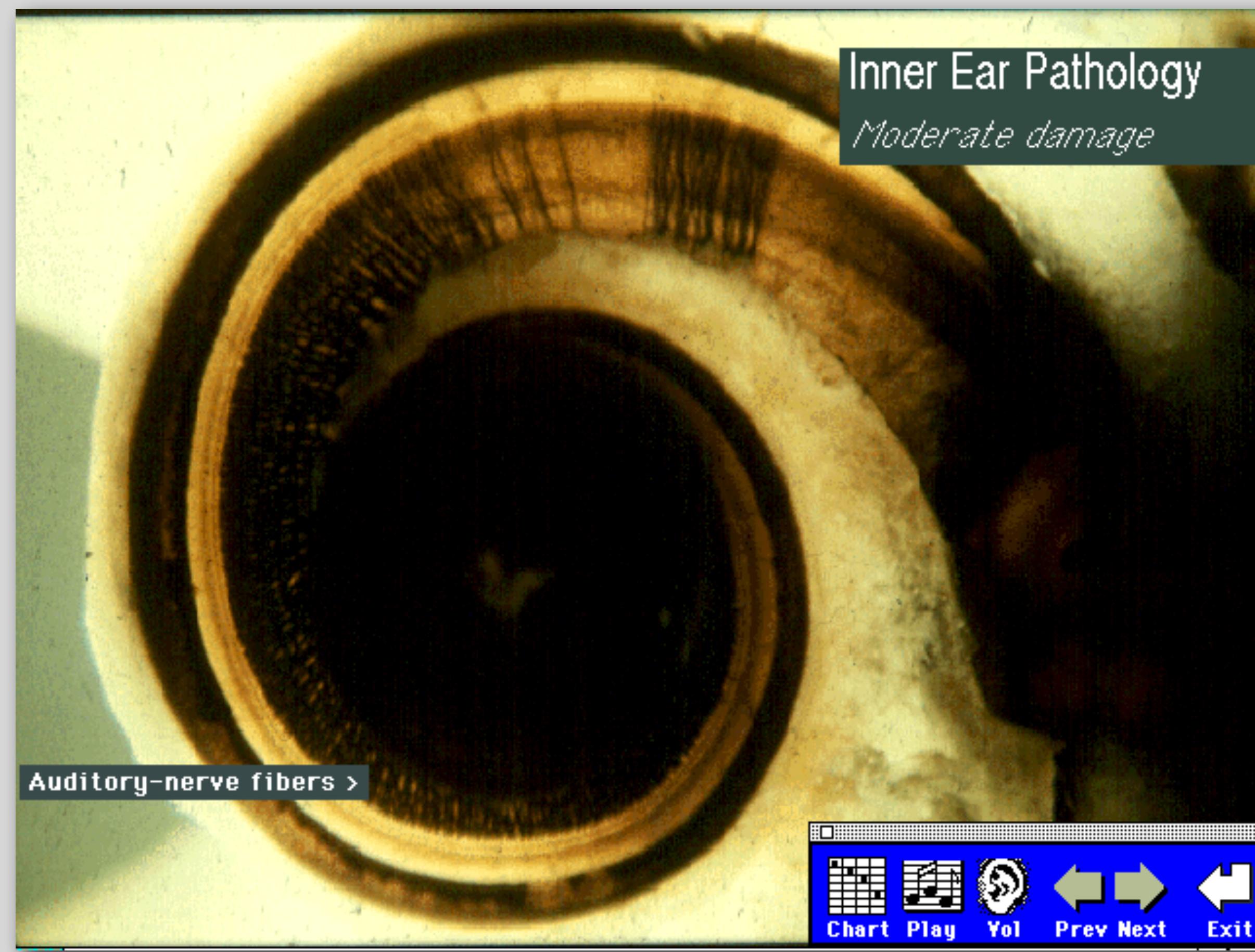
Normal Cochlea



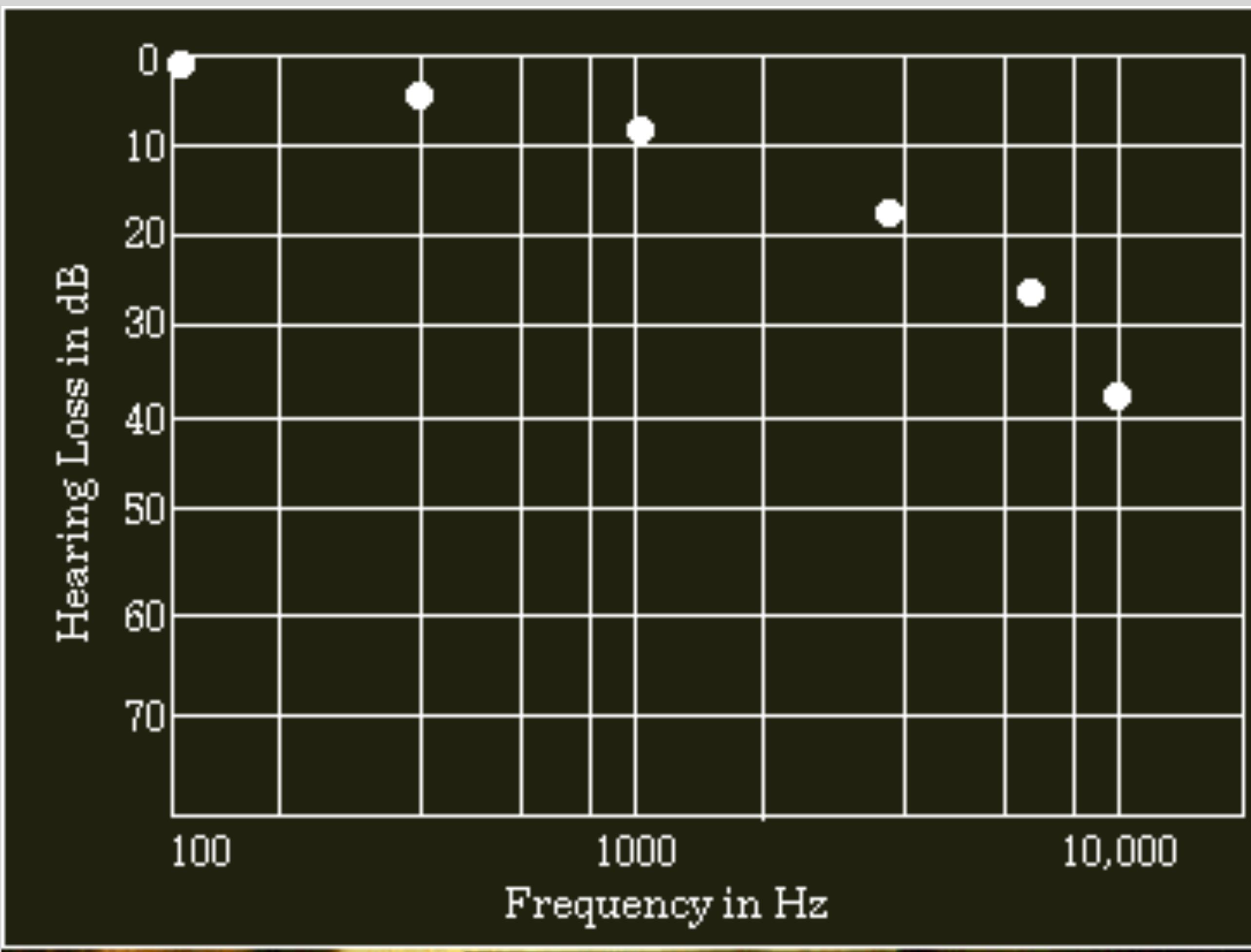
Normal Audiogram



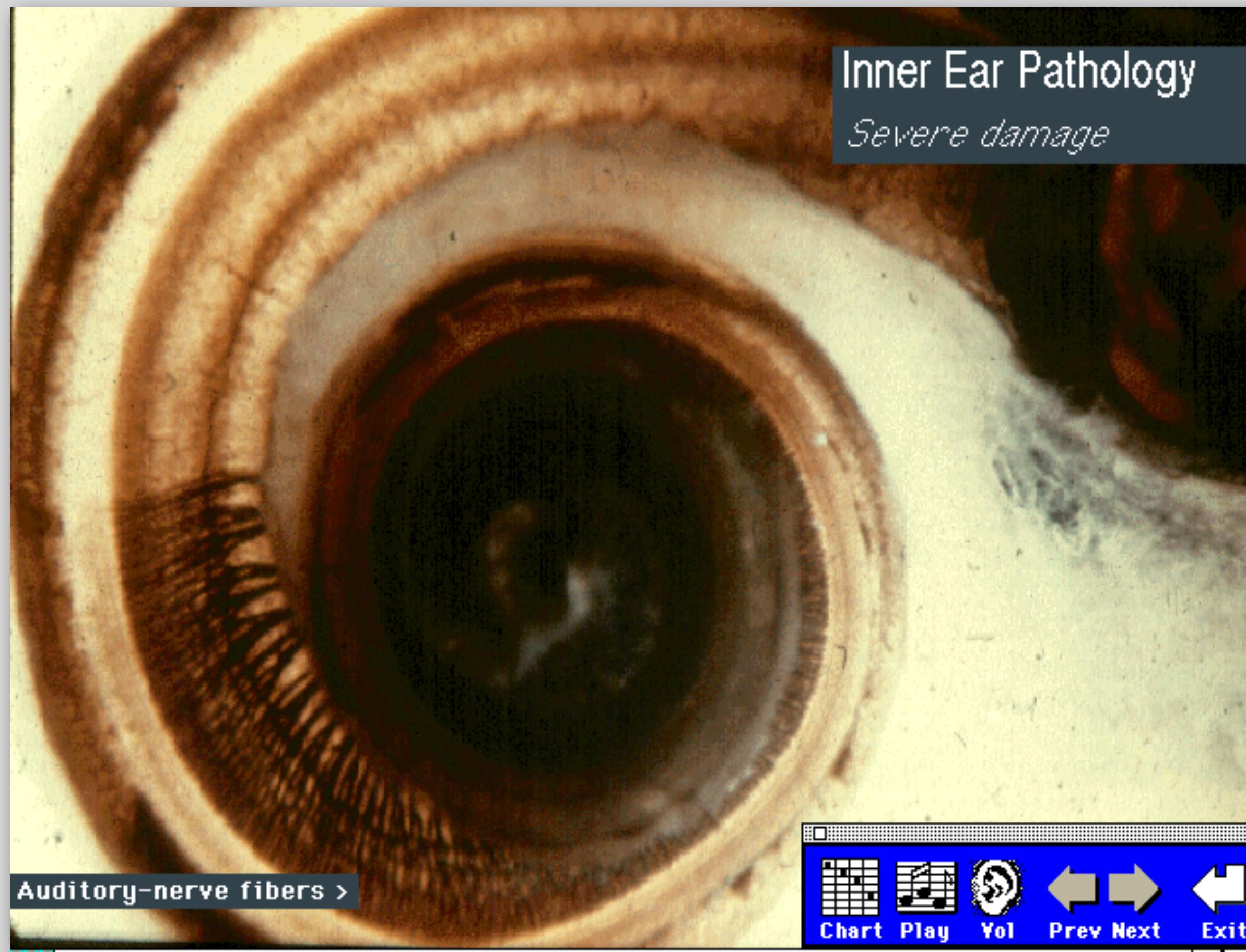
Moderate Damage



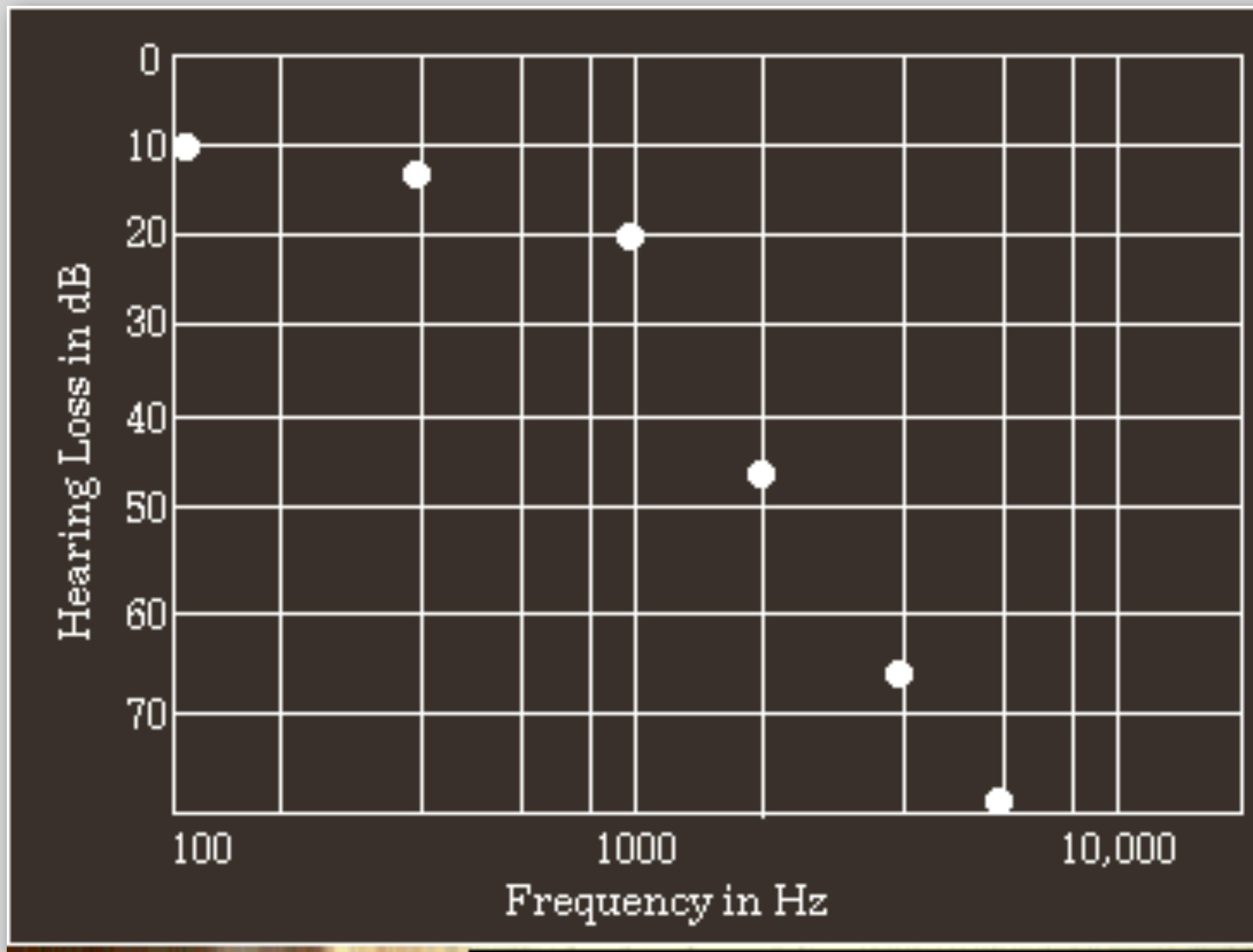
Moderate Loss in Audiogram



Severe Damage



Severe Loss in Audiogram



Conclusion:
Protect your ears from loud sounds

The End