

# Audiogram of the chimpanzee (*Pan troglodytes*)

## Data from:

Elder, J.H. (1934) Auditory acuity of the chimpanzee. *Journal of Comparative and Physiological Psychology*, 17, 157-183. (3 animals)

Kojima, S. (1990) Comparison of auditory functions in the chimpanzee and human. *Folia Primatologica*, 55, 62-72. (2 animals)

## Average absolute thresholds (in dB re 20 $\mu\text{N}/\text{m}^2$ ) of the two studies

Frequency (in kHz)	Elder 1934* Avg. Threshold (in dB)	Kojima 1990 Avg. Threshold (in dB)	Average Threshold (in dB)
.125	30	49	40
.250	15	35	25
.500	10	14	12
1	-1	9	4
2	-2	17.5	8
4	8	23	16
8	5	1	3
16		13.5	14
24		23.5	24
32		83	83

\*Actual frequencies used were 128, 256, 512, 1024, 2048, 4096, and 8192 Hz

## Lowest and highest frequencies audible at sound pressure levels (SPL) ranging from 30 to 70 dB SPL

SPL (in dB)	Lowest audible frequency (in kHz)	Highest audible frequency (in kHz)
70	—	30
60	—	28.5
50	—	27
40	.125	26
30	.210	24.5

## Additional Parameters:

**Body weight** = 50 kg

**Functional interaural distance**= 650  $\mu\text{s}$

(Time required for sound to travel around the head from one auditory meatus to the other.)

**Comments:** Threshold values taken from graphs. Both studies used headphones.