Table A1. Demographics for cochlear implant recipients

| Participant ID | Age at testing (yr) | Implant model | Duration of CI use (yr) | PTA (dB HL) | LF-PTA (dB HL) |
|---|---|---|---|---|---|
| AAX1 | 30.4 | N24-CI24RE (CA) | 2.1 | 112 | 98 |
| ABW1 | 38.5 | N24-CI24RE (CA) | 0.6 | 95 | 97 |
| ABS1 | 43.7 | N24-CI24RE (CA) | 2.6 | 100 | 87 |
| ABQ1 | 44.8 | N24-CI24RE (CA) | 0.6 | 83 | 73 |
| ABF1 | 48.4 | ME-Combi 40+ H | 4.4 | 80 | 80 |
| AAP1 | 48.9 | N22-CI22M | 15.6 | 120 | 120 |
| ABE1 | 48.9 | N24-CI24RE (ST) | 2.5 | 77 | 52 |
| AAY1 | 49.7 | N22-CI22M | 17.4 | 110 | 98 |
| ABH1 | 52.4 | N24-CI24R (CA) | 3.2 | 97 | 98 |
| AAK1 | 52.5 | N24-CI24R (CS) | 3.9 | 112 | 117 |
| AAG1 | 54.7 | N24-CI24R (CS) | 4.9 | 105 | 83 |
| ABV1 | 54.8 | N24-CI24RE (CA) | 2.1 | 80 | 82 |
| AAV1 | 55.3 | N24-CI24M | 10.1 | 105 | 83 |
| AAN1 | 56.3 | N24-CI24R (CS) | 4.2 | 92 | 92 |
| AAU1 | 57.6 | N24-CI24RE (CA) | 0.9 | 100 | 88 |
| ABN1 | 57.7 | CL-HiRes 90K | 2.6 | 92 | 83 |
| AAM1 | 58.0 | ME-Combi 40+ H | 2.7 | 100 | 82 |
| ABA1 | 59.7 | N24-CI24R (CS) | 5.8 | 87 | 73 |
| ABD1 | 59.7 | CL-HiRes 90K | 2.9 | 78 | 55 |
| AAS1 | 61.1 | ME-Combi 40+ H | 3.5 | 107 | 97 |
| ABU1 | 61.7 | CL-HiRes 90K | 2.9 | 108 | 107 |
| ABO1 | 62.7 | N24-CI24RE (CA) | 1.7 | 108 | 87 |
| ABL1 | 64.4 | N24-CI24R (CS) | 4.9 | 90 | 90 |
| ABI1 | 64.5 | N24-CI24RE (CA) | 2.1 | 110 | 108 |
| ABG1 | 64.8 | ME-Combi 40+ H | 3.1 | 93 | 93 |
| AAW1 | 66.9 | N24-CI24RE (CA) | 1.2 | 92 | 90 |
| AAQ1 | 68.7 | CL-HiFocus | 7.1 | 95 | 83 |
| ABM1 | 69.6 | N24-CI24RE (CA) | 2.6 | 88 | 60 |
| ABC1 | 70.4 | N24-CI24RE (CA) | 1.2 | 82 | 55 |
| ABJ1 | 70.4 | N24-CI24RE (CA) | 0.5 | 105 | 105 |
| ABR1 | 70.7 | CL-HiRes 90K | 2.3 | 113 | 108 |
| ABT1 | 71.0 | CL-HiRes 90K | 1.2 | 107 | 97 |
| AAD1 | 72.7 | ME-Combi 40+ H | 2.4 | 87 | 62 |
| ABB1 | 73.5 | ME-Combi 40+ HS | 7.2 | 93 | 73 |
| ABK1 | 73.7 | ME-Combi 40+ H | 8.0 | 78 | 72 |
| AAL1 | 73.8 | N24-CI24RE (CA) | 0.7 | 62 | 33 |
| AAR1 | 74.2 | N24-CI24M | 9.2 | 98 | 77 |
| AAT1 | 77.4 | N24-CI24RE (CA) | 3.8 | 107 | 82 |
| AAH1 | 80.8 | N24-CI24R (CS) | 5.4 | 108 | 102 |
| AAO1 | 81.8 | ME-Combi 40+ H | 3.0 | 77 | 80 |
| Mean | 61.17 | | 4.2 | 95.8 | 84.7 |
| SD | 11.58 | | 3.71 | 13.15 | 18.45 |

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Table B2. Soundfield Audiometric Thresholds

| Participant ID | Age | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 3000 Hz | 4000 Hz |
|---|---|---|---|---|---|---|---|
| AAX1 | 30.4 | 16 | 24 | 22 | 18 | 26 | 28 |
| ABW1 | 38.5 | 28 | 30 | 24 | 30 | 34 | 24 |
| ABS1 | 43.7 | 35 | 30 | 10 | 25 | 25 | 25 |
| ABQ1 | 44.8 | 15 | 25 | 25 | 30 | | 25 |
| ABF1 | 48.4 | 14 | 22 | 20 | 22 | 26 | 22 |
| AAP1 | 48.9 | 32 | 30 | 36 | 40 | | 42 |
| ABE1 | 48.9 | 20 | 25 | 15 | 15 | 30 | 30 |
| AAY1 | 49.7 | 36 | 42 | 40 | 36 | | 40 |
| ABH1 | 52.4 | 42 | 48 | 38 | 32 | | 32 |
| AAK1 | 52.5 | 25 | 25 | 25 | 20 | 25 | 20 |
| AAG1 | 54.7 | 18 | 30 | 24 | 24 | | 22 |
| ABV1 | 54.8 | 25 | 40 | 30 | 25 | | 30 |
| AAV1 | 55.3 | NA | NA | NA | NA | NA | NA |
| AAN1 | 56.3 | 30 | 40 | 35 | 30 | 30 | 35 |
| AAU1 | 57.6 | 22 | 20 | 16 | 20 | 22 | 24 |
| ABN1 | 57.7 | 40 | 30 | 25 | 35 | 50 | 50 |
| AAM1 | 58.0 | 20 | 30 | 25 | 25 | | 30 |
| ABA1 | 59.7 | 18 | 20 | 20 | 17 | 15 | 15 |
| ABD1 | 59.7 | 28 | 36 | 34 | 28 | | 34 |
| AAS1 | 61.1 | 20 | 24 | 20 | 24 | 26 | 24 |
| ABU1 | 61.7 | 40 | 20 | 25 | 25 | | 30 |
| ABO1 | 62.7 | 30 | 35 | 30 | 35 | | 40 |
| ABL1 | 64.4 | 40 | 40 | 35 | 25 | 40 | 30 |
| ABI1 | 64.5 | 22 | 36 | 26 | 26 | 26 | 30 |
| ABG1 | 64.8 | 25 | 30 | 25 | 25 | 25 | 35 |
| AAW1 | 66.9 | 24 | 30 | 30 | 28 | 28 | 36 |
| AAQ1 | 68.7 | 28 | 22 | 22 | 24 | 32 | 36 |
| ABM1 | 69.6 | 12 | 24 | 24 | 20 | 26 | 28 |
| ABC1 | 70.4 | 26 | 32 | 30 | 30 | | 30 |
| ABJ1 | 70.4 | 30 | 30 | 25 | 30 | 30 | 20 |
| ABR1 | 70.7 | 24 | 30 | 25 | 18 | 30 | 30 |
| ABT1 | 71.0 | 30 | 35 | 35 | 20 | 25 | 25 |
| AAD1 | 72.7 | 20 | 32 | 30 | 26 | | 36 |
| ABB1 | 73.5 | 25 | 35 | 35 | 35 | 40 | 35 |
| ABK1 | 73.7 | 35 | 30 | 20 | 35 | 45 | 35 |
| AAL1 | 73.8 | 35 | 45 | 45 | 50 | | 50 |
| AAR1 | 74.2 | 34 | 44 | 35 | 32 | | 30 |
| AAT1 | 77.4 | 15 | 35 | 25 | 20 | | 25 |
| AAH1 | 80.8 | 30 | 36 | 34 | 32 | 36 | 38 |
| AAO1 | 81.8 | 16 | 28 | 18 | 22 | 22 | 22 |
| Mean | 61.17 | 26.28 | 31.28 | 27.13 | 27.03 | 29.75 | 30.59 |
| SD | 11.58 | 8.07 | 7.17 | 7.44 | 7.09 | 7.85 | 7.70 |

NA: not available

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Table C3. Fundamental and formant frequencies for vowel stimuli (adapted from Cleary 1996).

| Vowel (as in) | F0 (Hz) | F1 (Hz) | F2 (Hz) | F3 (Hz) |
|---|---|---|---|---|
| [ i ] “heed” | 130 | 263 | 2206 | 3071 |
| [ u ] “who’d” | 138 | 287 | 771 | 2290 |
| [ æ ] “had” | 124 | 634 | 1767 | 2613 |
| [ ɑ ] “hawd” | 127 | 604 | 924 | 2662 |
| [ ʌ ] “hud” | 125 | 604 | 1257 | 2670 |
| [ ɛ ] “head” | 124 | 609 | 1655 | 2458 |
| [ I ] “hid” | 131 | 364 | 1922 | 2586 |
| [ ʊ ] “hood” | 134 | 438 | 1101 | 2470 |

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