

## Appendix. Background information on the hearing impaired participants

Participant	Age	Gender	Age at diagnosis	Age at the beginning of intervention (hearing aids fitted)	Type of hearing loss	Etiology	Hearing loss (right and left) <sup>a</sup>	Device (CI=cochlear implant, HA= 2 hearing aids)	Age at first implantation
Children with impairment in CSN									
17	10;3	male	0;9	1;2	sensorineural	unknown		CI	1;6
20	9;11	male	0;0	0;5	sensorineural	genetic		2 CI	1;3
1	9;11	female	0;7	0;8	sensorineural	unknown		CI	1;7
19	9;1	female	0;2	0;3	sensorineural	unknown		CI	1;0
15	11;5	female	0;0	0;6	sensorineural	genetic		CI	1;6
14	10;3	male	0;6	unknown	sensorineural	unknown		CI	1;5
18	10;4	male	0;0	unknown	sensorineural	genetic	r-85, l-85	HA	
5	11;5	female	2;6	3;6	sensorineural	unknown	r-60, l-65	HA	
16	10;6	female	3;0	7;0	sensorineural	unknown	r-85, l-75	HA	
2	10;6	male	0;0	0;2	sensorineural	syndrome		2 CI	1;0
9	12;2	male	0;0	0;6	sensorineural	genetic		CI	3;6
22	11;7	male	0;0	1;0	sensorineural	unknown		CI	5;0
Children with marginal or mild difficulty in CSN									
13	11;11	male	0;6	3;0	sensorineural	unknown	r-45, l-50	HA	
4	10;9	female	0;2	0;3	sensorineural	genetic		CI	1;0
6	10;10	male	0;6	1;0	sensorineural	unknown	r-90, l-70	HA	
8	10;10	female	0;0	0;4	sensorineural	genetic		2 CI	2;6
25	10;0	female	0;8	unknown	sensorineural	unknown		CI	1;3
7	10;10	female	0;0	0;4	sensorineural	genetic		2 CI	5;0
26	10;10	male	1;4	2;6	combined	genetic	r-80, l-80	HA	
3	10;6	female	0;0	1;0	sensorineural	unknown		CI+HI	2;2
21	9;8	male	0;0	3;6	combined	middle ear deformation	r-50, l-50	HA	
31	10;1	female	3;0	3;0	sensorineural	genetic	r-60, l-65	HA	
10	9;8	male	0;0	0;6	sensorineural	genetic	r-50, l-50	HA	
23	10;1	male	0;6	unknown	sensorineural	genetic		CI	1;0
Children with intact reading of CSN									
11	9;7	female	0;0	0;2	sensorineural	genetic	r-65, l-70	HA	
12	11;3	female	0;6	0;10	sensorineural	syndrome		CI	2;2
24	10;7	female	0;6	0;6	sensorineural	syndrome	r-60, l-65	HA	
27	11;1	female	0;6	3;0	sensorineural	genetic	r-70, l-75	HA	
28	9;6	female	1;6	1;9	combined	genetic		CI	4;5
29	10;0	male	0;0	0;9	sensorineural	genetic	r-55, l-55	HA	
30	9;8	male	0;3	0;6	sensorineural	preterm	r-50, l-55	HA	
32	10;9	male	0;3	1;0	sensorineural	genetic	r-50, l-50	HA	