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Hearing, communication, and use/non-use of hearing aids by older people

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Many older people lose high-frequency hearing sensitivity, score poorly on auditory word tests, and report communication difficulty in noise. Yet only about 20% obtain hearing aids, and about 25% of aid owners are non-users. A literature review has shown a relation between hearing loss, communication difficulty, and use/non-use of hearing aids.

A typical older person's audiogram is flat below about 1KHz, then slopes about -15 dB/octave (e.g., Gussekloo, et al, 2003). Older people typically report communication difficulty when their thresholds are > about 35 dB HL in the lower frequencies (Lichtenstein, et al, 1990; Holt and Seeger, 1995). In contrast, hearing aids often are recommended to people when their thresholds > about 20 dB HL in the lower frequencies (e.g., Davis, 2003).

Although most older people with mild losses experience difficulty with auditory perception of speech, much daily communication is auditory-visual (face-to-face). They rely on lipreading and cooperation from others, and thus postpone the use of hearing aids. They eventually obtain/use hearing aids when face-to-face communication becomes difficult.

Regular use of hearing aids is related to need (impaired speech audibility), motivation (recognition of difficulty), and benefit (communication with aids better than without aids). In general, older people who do not use their hearing aids: have good low-frequency hearing thresholds (Erber, 2003), lack self-motivation (Garstecki, 1996), attempt to converse in noise with uncooperative partners (Erber, et al, 1996), have incorrectly programmed aids (Erber, 2006), cannot manage their aids or earmoulds (Stephens and Meredith, 1990), or have other health problems (Gussekloo, et al, 2003).

It is recommended that audiologists recognize the contribution of lipreading to daily communication, provide hearing aids to optimize low-frequency audibility, measure benefits face-to-face, test vision and manual dexterity, and check audiogram accuracy.

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Abstract EFAS/DGA 2007

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