

Cochlear implants – Age is no Barrier



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The prevalence of hearing loss doubles for every decade of life during adulthood. For those with significant hearing loss, conventional hearing aids may not provide adequate benefit to address the social, communication and cognitive deficits that arise from an inability to converse in person or over the phone. Candidacy for cochlear implantation is based on audiological and medical factors. Candidates must gain limited benefit from well-fitted hearing aids on standardised measures and be fit to undergo a 90 minute surgical procedure.



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Traditionally, cochlear implantation was avoided for the elderly for risk of surgical complications and low outcomes. Experience over the past 10 years supports cochlear implantation in this age group for those who meet candidacy criteria.

Cochlear implants typically provide substantial improvements in communication for adults, but individual outcomes vary. For adults, formal selection criteria do not pose an upper age limit. Patients in their 80s and 90s are routinely implanted, with similar benefits to younger adults in speech understanding and quality of life benefits. Further, there is strong evidence of improvement over time with cochlear implant experience, similar to other age groups. For outcomes, one of the main predictive factors is duration of significant hearing loss – the longer the period of deafness prior to implantation, the poorer the prognosis. The duration of deafness is a more powerful predictor of performance than age itself, and it seems that the lower the percentage of life spent with a significant hearing loss, the higher the hearing outcomes post-implantation.

- Age itself is not a contraindication
- Post-surgical complications are rare; most common is short-lived imbalance
- Speech recognition outcomes in adults over 80 are comparable to those of younger adults in some studies and slightly lower in others
- Any differences in performance between older and younger recipients are better accounted for by longer duration of severe-profound deafness before implantation

When lower outcomes are reported based on age alone, they are thought to be due to reduced learning potential, neural plasticity and central auditory function, which is known to reduce with advanced age. Recently, significant attention has been placed on the potential preventative effects of hearing interventions, including cochlear implantation, for older adults in terms of dementia, poor general health and falls.

References available on request.