International Consensus Paper

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# STANDARD OF CARE

Unilateral cochlear implants for adults with bilateral severe, profound, or moderate sloping to profound sensorineural hearing loss.

This consensus established twenty statements on the use of unilateral cochlear implants in adults with sensorineurarl hearing loss. The statements represent the first step toward the development of international guidelines on best practices for cochlear implants in adults with sensorineural hearing loss. Learn more about the seven categories below and twenty statements below. For more information on how the consensus was established, please visit www.adulthearing.com.



#### Category 1 - Level of awareness of CIs

• Awareness of cochlear implants among primary and hearing healthcare providers is inadequate, leading to under-identification of eligible candidates. Clearer referral and candidacy pathways would help increase access to cochlear implants.

#### Category 2 - Best practice clinical pathway for diagnosis

- Detection of hearing loss in adults is important; pure tone audiometry screening methods are considered the most effective. The addition of a questionnaire or interview to the screening can improve the detection of sensorineural hearing loss.
- Preferred aided speech recognition tests for cochlear implant candidacy in adults include monosyllabic word tests and sentence tests, conducted in quiet and noise. Further standardization of speech recognition tests is needed to facilitate comparison of outcomes across studies and countries.



• Age alone should not be a limiting factor to cochlear implant candidacy, as positive speech recognition and quality of life outcomes are experienced by older adults as well as younger adults.



#### Category 3 - Best practice guidelines for surgery

- Both curved (perimodiolar) and straight electrodes are clinically effective for cochlear implantation, with a low rate of complications.
- When possible, hearing preservation surgery can be beneficial in individuals with substantial residual hearing.

#### Category 4 - Clinical effectiveness of CIs

- Cochlear implants significantly improve speech recognition in both quiet and moderate noise in adults with bilateral severe, profound, or moderate sloping to profound sensorineural hearing loss; these gains in speech recognition are likely to remain stable over time.
- Both word and sentence recognition tests should be used to evaluate speech recognition performance following cochlear implantation.
- Cochlear implants significantly improve overall and hearing-specific quality of life in adults with bilateral severe, profound, or moderate sloping to profound sensorineural hearing loss.





### Category 5 - Factors associated with post-implantation outcomes

- Long durations of unaided hearing loss do not rule out potential benefit of cochlear implants: individuals who receive an implant in an ear that was previously unaided for more than 15 years have been shown to experience improvements in speech recognition.
- Adults who have undergone cochlear implantation should receive programming sessions, as needed, to optimize outcomes.
- Where appropriate, individuals should use hearing aids with their cochlear implant in order to achieve bilateral benefits and the best possible speech recognition and quality of life outcomes.
- Many factors impact cochlear implant outcomes; further research is needed to understand the magnitude of the effects.

## Category 6 - The relationship between hearing loss and depression, cognition, and dementia

• Adults with hearing loss can be substantially affected by social isolation, loneliness, and depression; evidence suggests that treatment with cochlear implants can lead to improvement in these aspects of well-being and mental health. Longitudinal studies are needed to obtain further knowledge in this area.



- There is an association between age-related hearing loss and cognitive/memory impairment.
- Further research is required to confirm the nature of cognitive impairment in individuals with hearing loss, and its potential reversibility with treatment.<sup>1</sup>
- The use of cochlear implants may improve cognition in older adults with bilateral severe to profound sensorineural hearing loss.
- Hearing loss is not a symptom of dementia; however, treatment of hearing loss may reduce the risk of dementia.



#### Category 7 - Cost implications of CIs

• Unilateral cochlear implantation in adults is cost-effective when compared with no implant or no intervention at all and is associated with increased employment and income.

The first step towards clinical practice guidelines addressing cochlear implantation for adults.'

For more information, visit www.adulthearing.com.

