Adult Cochlear Implant Candidacy Protocol
Ear & Hearing | Center for Neurosciences

There are a variety of factors to consider when determining if someone is a cochlear implant (CI) candidate. However, most patients have a long-standing history of progressive sensorineural hearing loss in both ears and no longer receive much benefit from conventional hearing aids. During a comprehensive audiolologic evaluation, word recognition scores of <60% indicate a patient may be a cochlear implant candidate and should consider a cochlear implant evaluation (CIE).

COCHLEAR IMPLANT EVALUATION, part I 60 MINS
Testing performed in the sound field at 60 dBA at 0 degree azimuth for both speech & noise via recorded materials unless otherwise indicated.

**Evaluation of Aural Rehabilitation Status. in the BEST AIDED CONDITION**
Verification of hearing aid output
Real-Ear-Measures using evidence-based prescriptive targets

AzBio Sentence Recognition Testing, +5 Signal-to-Noise Ratio (SNR)
Right hearing aid only
Left hearing aid only
Binaural hearing aids

CNC Word and Phoneme Scores, Quiet
Binaural hearing aids

**Counseling and review of results**
Review Candidacy Criteria

Review results:
Should patient NOT yet meet CI candidacy criteria our audiologist will recommend an appropriate hearing device

Should patient MEET CI candidacy criteria our audiologist will discuss CI basics (see below) and the patient will be scheduled for CIE, part II, and Vestibular Evaluation.

**Overview of CI process:**
Internal/external devices
Follow-up appointments
Aural rehabilitation
Realistic expectations
Manufacturer review and information provided
Contact/meet with manufacturer reps for detailed information
ALOHA
COCHLEAR IMPLANT EVALUATION, part II 60 MINS
1-3 weeks following CIE, part I
Testing performed in the sound field at 60 dBA at 0 degree azimuth for both speech & noise via recorded materials unless otherwise indicated.

Evaluation of Aural Rehabilitation Status. in the BEST AIDED CONDITION
Verification of hearing aid output
Real-Ear-Measures using evidence-based prescriptive targets

AzBio Sentence Recognition Testing, Quiet
Right hearing aid only
Left hearing aid only
Binaural hearing aids

CNC Word and Phoneme Scores, Quiet
Right hearing aid only
Left hearing aid only

Counseling and device selection
Address patient questions
Review of aural rehabilitation and realistic expectations
Finalize device selection and complete order form

VESTIBULAR EVALUATION 90 MINS
At least 1-week prior to CI surgery
Vestibular evaluation is included in the comprehensive Cochlear Implant Evaluation to assess inner ear balance function. Balance testing does not typically prevent someone from receiving a cochlear implant but can provide information about which ear should be implanted. Please refer to Vestibular Evaluation Protocol for specific testing details.

Cervical Vestibular Evoked Myogenic Potential (cVEMP)
cVEMP is an electrophysiologic test used to determine the function of the saccule and inferior vestibular nerve. Responses are measured from the sternocleidomastoid muscle in the neck. The patient is seated in an upright position and instructed to quickly turn their head opposite to the ear of stimulation in order to engage the sternocleidomastoid muscle upon hearing the 500 Hz tone-burst stimuli.
Videonystagmography (VNG)
VNG is used to evaluate patients with dizziness, vertigo, or balance dysfunction. In this test, eye movements are recorded which gives information about the central and peripheral balance system via the vestibular ocular reflex. It provides an objective assessment of the oculomotor and vestibular systems. VNG testing consists of three parts:

1) Oculomotor evaluation
2) Positioning/positional evaluation
3) Caloric stimulation of the vestibular system

*Petrosectomy/ear canal closure patients OR patients with a history of extensive ear surgery do NOT need vestibular evaluation prior to surgery due to inability to accurately assess caloric function.

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