CRITERIA OF SUITABILITY FOR COCHLEAR IMPLANTATION

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In order to be considered for a cochlear implant, the person should have a profound bilateral hearing loss, with little or no benefit from hearing aids. People with minimal open-set speech discrimination can be considered, with phoneme scores of up to 20% in the better ear, provided the ear to be implanted does not obtain significant open-set speech discrimination. Where there is any degree of benefit from hearing aids, even as an aid to lipreading, the poorer hearing ear is preferred for implantation. A team approach is necessary to detect and correct medical, learning and psychosocial problems. The CT scan has been designed to measure the patency of the cochlear spiral and detect any lesions of the internal auditory meatus, air cell system or emissary veins which could make for surgical difficulty. The electrical stimulation of the remaining auditory neurones by a needle on the promontory aims to confirm the responsiveness of the auditory nerve and should be performed on all candidates 12 years and older. There is a battery of assessments available but if the pulse cannot be detected before it reaches a current level producing pain the ear should not be implanted. The threshold and minimal gap detection tests have no prognostic value but the patient’s observations about the percept produced by pulses of 50, 100 and 200pps are useful. There is a relationship between the ability to detect change in pulse rate and the postoperative CID sentence score. This may be used to choose a preferred ear and to give a guide to the possibility of a high or a low speech perception score. We believe the tests are an important part in gaining realistic expectations especially when the patient can listen to speech through an FO extraction speech processor attached to the needle.