

Cochlear™ Nucleus® Electrode Portfolio

Electrodes for Typical Cochlea

Reference Guide

Uniquely Designed for Preservation, Performance and Preference



Cochlear Nucleus CI24RE with Contour Advance™ Electrode

True innovation with the industry's only perimodiolar electrode

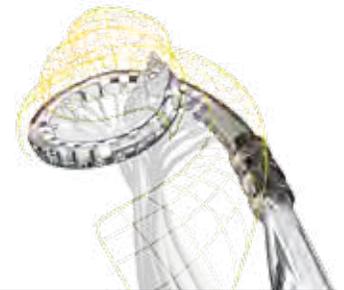
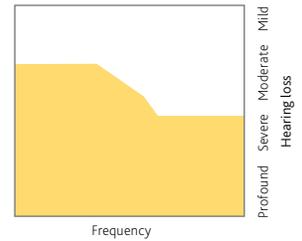
The Contour Advance Electrode is ideally suited for cochleostomy and extended round window insertions. With its unique perimodiolar placement, the Contour Advance provides the most precise and efficient stimulation for patients.¹⁻³

Key features and benefits

- Softip™ for minimal insertion trauma
- White marker assists Advance Off–Styilet™ (AOS) insertion
- Half–band intracochlear electrode array with smooth lateral surface
- 22 half–banded platinum electrode contacts provide focused stimulation to the spiral ganglion cell region

Common uses

- Normal cochlea, Partial fibrosis, Revision cases



Cochlear Nucleus CI422 with Slim Straight Electrode

The industry's thinnest round window electrode

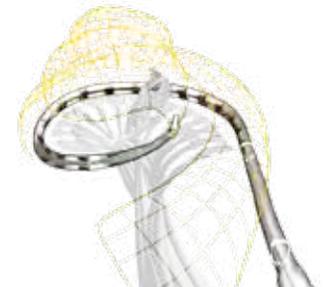
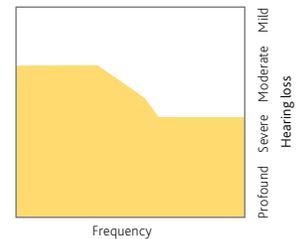
The Slim Straight electrode is designed to be inserted through the round window or cochleostomy. A soft tip combined with thin diameter, apical flexibility, and smooth lateral wall surface facilitates an easy single stroke insertion designed to protect the delicate cochlear structures.

Key features and benefits

- Softip for minimal insertion trauma
- Markers at 20mm and 25mm to indicate insertion depth intraoperatively
- 22 medial facing platinum electrode contacts, positioned over 20mm
- Patented basal stiffener optimizes electrode mechanics, to enable a smooth, single motion insertion without buckling

Common uses

- Normal cochlea, Abnormal anatomy, Revision cases



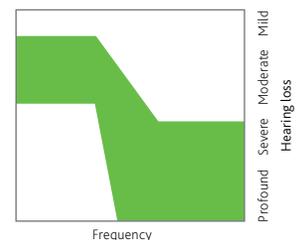
Hybrid™ L24 Electrode*

The optimal length electrode for high frequency hearing loss

The Hybrid L24 Electrode provides electrical stimulation in the basal section of the cochlear, while protecting the apical section to provide benefit from acoustic stimulation. This combination of stimulation is indicated in patients with mild to moderate hearing loss in the low frequencies and severe to profound hearing loss in the high frequencies.

Key features

- Softip for minimal insertion trauma
- Patented basal stiffener enables smooth, single motion insertion and prevents buckling
- Half–band intracochlear electrode array with smooth lateral surface
- Basal stiffener enables smooth insertion and prevents buckling
- Stopper controls insertion depth
- 22 medial facing platinum electrode contacts, positioned over 14.5mm



*Not currently available in the U.S. Caution: Investigational device restricted to US FDA clinical studies.

Cochlear Nucleus CI24RE with Full-Band Straight Electrode

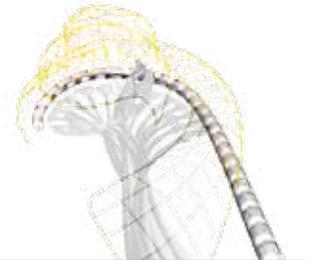
As Cochlear's first straight array with 22 active electrodes over a length of 17mm, the CI24RE Full-Band Straight has found widespread use in patients with various types of abnormal cochlea.

Key features and benefits

- Diameter at apical end: 0.4mm
- Diameter at basal end: 0.6mm
- 22 full-band platinum electrode contacts positioned over 16.4mm
- 10 stiffening rings to aid insertion

Common uses

- Incomplete cochlear partition, Hypoplasia, Common cavities, Revisions



Cochlear Nucleus CI24M with Double Array Electrode

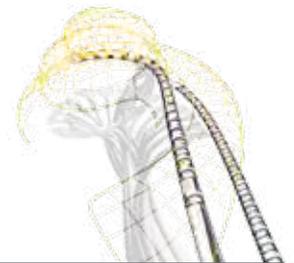
The CI24M with Double Array Electrode is ideal for patients with ossified cochlea where intracochlear electrode insertion is still possible but a full insertion is not expected.

Key features and benefits

- Apical array with 11 platinum electrode contacts positioned over 8.25mm plus 9 stiffening rings
- Visual gap between last two stiffening rings indicates the apical array
- Basal array with 11 platinum electrode contacts positioned over 8.25mm plus 10 stiffening rings

Common uses

- Ossified Cochlea



Cochlear Nucleus 24 with Auditory Brainstem Electrode

The ABI541 is a clinically proven treatment for patients who cannot benefit from a cochlear implant due to conditions including bilateral acoustic neuroma, cochlear nerve avulsion or complete cochlear ossification.

Key features and benefits

- Electrode pad with 21 platinum electrodes
- T-shape narrow weave PET mesh on the posterior of the electrode promotes fibrous tissue ingrowth, assisting device fixation
- Square PET mesh on the electrode adheres to soft tissue and helps to prevent cerebrospinal fluid from tracking along the electrode lead

Common uses

- Patients with NF2



1. The Hearing Zone is approximately 400-450 degrees into the cochlear, which has been determined from peer review articles. Stakhovskaya O, Bonham BH, Sridhar D, Leake P. Frequency Map for the Human Cochlear Spiral Ganglion. JARO. 2007 8:220-223 and Ariyasu L, Galey FR, Hilsinger R, Jr., Byl FM. Computer-generated three dimensional reconstruction of the cochlea. Otolaryngology Head Neck Surgery. 1989; 100(2):87-91.
2. J. Thomas Roland Jr. MD. A model for cochlear implant electrode insertion and force evaluation: results with a new electrode design and insertion technique. Laryngoscope. 2005 Aug;115(8):1325-39.
3. Wolfe, J., Parkinson, A., Schafer, E.C., Gilden, J., Rehwinkel, K., Mansanares, J., Coughlan, E., Wright, J., Torres, J., & Cunningham, S. (2011). Benefit of a commercially available cochlear implant processor with dual-microphone beamforming: A Multi-Center Study, Otolology & Neurotology, In Press.

www.CochlearAmericas.com

Cochlear Americas	Tel: 1 303 790 9010
13059 East Peakview Avenue	Fax: 1 303 792 9025
Centennial, CO 80111 USA	Toll Free: 1 800 523 5798

Cochlear, AOS, Contour Advance, Softip, Hybrid and the elliptical logo are trademarks of Cochlear Limited. Hear now. And always is registered trademarks of Cochlear Limited. © Cochlear Limited 2012

 Please Recycle
FUN1359 ISS1 APR12