Naida Link CROS Solution

In many cases, bilaterally deaf individuals can only be implanted with a cochlear implant (CI) on one side. These unilateral CI users continue to experience similar limitations as single sided deaf individuals. To alleviate these limitations, the Naida Link CROS Solution combines the Advanced Bionics Naida CI sound processor and the Phonak Naida Link contralateral routing of signals (CROS) device. The CROS device picks up the signal from the contralateral ear and transmits it to the CI processor, compensating the head shadow effect. Additionally, the contralateral microphone of the CROS device provides access to advanced front-end features.

Details:
• Based on established Phonak Hearing Aid technology
• Works with AB Naida CI processors (Q70 and Q90)
• Two microphone modes:
  • Omni
  • Beamformer (UltraZoom/StereoZoom)
• Straightforward fitting workflow, out-of-the-box solution
• For speech on CROS side, up to 8 dB benefit
• StereoZoom provides 4 dB benefit in noise

Subjective Feedback
• Perceived benefit in everyday listening (positive rating)
• High satisfaction with Naida Link CROS solution

Subjects
N = 7
Age = 70 yrs [53-83]
CI use = 5.4 yrs [2-8]
Q90 + CROS

Benefits in noise

- Improved intelligibility for $S_{CROS}$ and $S_{N}$ in N2
- Immediate benefit, no training/learning required

Subjective Feedback
• High subjective satisfaction with Naida Link CROS device
• CROS clearly preferred by 6/10 subject

Unfallkrankenhaus Berlin, Berlin, Germany

Hôpital de la Pitié-Salpêtrière, Paris, France

Improved intelligibility for speech on CROS side
• Consistent performance across speaker locations

Advanced Bionics, Valencia, USA

Improved intelligibility for speech on CROS side
• Slight decrease for speech on CI side
• Consistent performance across speaker locations

Summary
The Naida Link CROS solution enables consistent listening performance regardless of the target speaker location. For speakers located on the unimplanted side, benefits of up to 8 dB SRT and 50% speech intelligibility were shown. The additional possibility to access the advanced StereoZoom feature provides further benefit for listening in noisy environment. Subjects reported high satisfaction with the device itself as well as the perceived everyday benefits. Therefore, the Naida Link CROS device is a valuable addition to a unilateral CI where bilateral implantation is not an option.

References:
• Advanced Bionics (2017) Bilateral Hearing for Unilateral AB Cochlear Implant Recipients - Phonak Naida Link™ CROS Solution, White Paper
• Advanced Bionics (2018) Redefining the Unilateral Cochlear Implant Experience - Naida Link CROS Solution, White Paper

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