Dietmar K., Smart Hearing Alliance bimodal user

Discover the benefits of smart bimodal hearing



ReSound GN

Smart Hearing Alliance

"The bimodal solution simply gives me greater confidence."

Stefanie A., Smart Hearing Alliance bimodal user



Better hearing with both ears

Ears work as a team, and the brain needs both ears to effectively process sound.¹ From crossing the street with confidence to having conversations in noisy places, there are significant advantages to hearing well with both ears.¹

If you are missing conversations with family and friends, or finding music less enjoyable, even when using hearing aids, there may be a better hearing solution for you.

For many people, using a cochlear implant on one ear and a hearing aid on the other is the combination that provides them with their best hearing.²⁻⁸ This is called **bimodal hearing**.

Two types of hearing working together

Bimodal hearing combines two types of hearing technology - acoustic amplification and electrical stimulation.

Hearing aids provide you with enhanced acoustic hearing. They are designed to take advantage of your residual natural hearing by amplifying sounds to make listening more enjoyable.

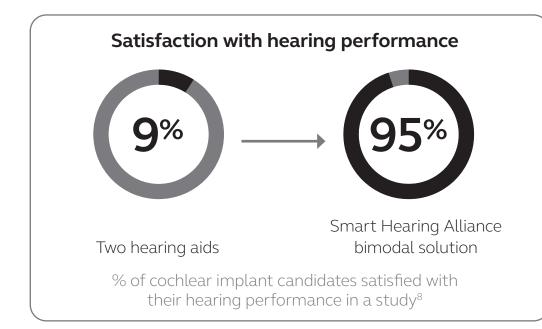
Cochlear implants bypass damaged parts of the ear and provide you with hearing through electrical stimulation of the hearing nerve. A cochlear implant is designed to deliver the clarity of sound your natural hearing may no longer be able to achieve.⁹

By optimising the hearing in both ears, bimodal hearing solutions are designed to improve overall sound quality.

The benefits of bimodal hearing

For some people, bimodal hearing may provide their best possible hearing experience. When compared to using a hearing aid or cochlear implant alone, users of bimodal hearing report:

- a more natural hearing experience²
- improved speech understanding in both quiet and noise ³⁻⁶
- enhanced perception of music⁷, and
- better overall performance in real-life environments.³



Smart Hearing Alliance bimodal solutions

When you choose a Cochlear[™] Implant you have access to bimodal solutions from the Smart Hearing Alliance, a collaboration between Cochlear and ReSound, a global leader in the hearing aid industry.

Smart Hearing Alliance bimodal solutions provide all the benefits of bimodal hearing with additional audio streaming and connectivity advantages.

"Ever since I was a child, my hobby has always been dancing. While dancing I never notice that I am using a hearing aid and a cochlear implant."

Fleur D., Smart Hearing Alliance bimodal user

"Now I can be social with people again. I have found my old self again."

Lennart A., Smart Hearing Alliance bimodal user



Outstanding hearing performance

In a study, users of a Smart Hearing Alliance bimodal solution reported much higher satisfaction with their hearing performance across a range of listening situations, compared to when they used two hearing aids.⁸

Self assessed hearing performance ⁸ % satisfied or very satisfied	Two hearing aids	Smart bimodal hearing solution Nucleus® 7 Sound Processor & compatible ReSound hearing aid*
Hearing performance in background noise	2 % —	→ 58 %
Ability to understand conversations in a small group	8% —	→ 79 %
Ability to understand people on the phone	6 % –	→ 71 %
Ability to listen to and appreciate music	13 % –	→ 68 %
Ability to understand what is said on TV	13 % –	→ 76 %

When surveyed, users of Smart Hearing Alliance bimodal solutions were also more likely than other bimodal users to say they find it easy to hear in noisy environments and easy to talk on the phone.¹⁰

Direct smartphone streaming

The Smart Hearing Alliance designs solutions to complement your lifestyle. We offer a bimodal solution with direct smartphone streaming, which 89% of smart bimodal users say is important in their everyday life.¹⁰

With direct streaming you only need your smartphone to connect with loved ones and the world around you. You can easily stream calls, music and entertainment from a compatible iOS or Android[™] device directly to your compatible sound processor and hearing aid.*

Smart bimodal hearing is available through the following Cochlear and ReSound devices.



The world's smallest and lightest behind-the-ear sound processor¹¹ combines comfort with proven hearing performance technology.¹²⁻¹⁴



Enjoy comfort and discretion with the world's smallest and lightest rechargeable off-the-ear sound processor.¹¹



ReSound Compatible hearing aids* Innovative hearing aids to support smart bimodal hearing include: ReSound ONE[™], ReSound LiNX Quattro[™], ReSound ENZO Q[™], ReSound LiNX 3D[™] and ReSound ENZO 3D[™].



"I'm bimodal. It streams to both devices at the same time as if in stereo. I think the best way to describe it is high definition. High definition audio."

Mathias B., Smart Hearing Alliance bimodal user

"I'm coaching students, so I pass the microphone around in class or leave it in a central spot. It greatly improves my hearing."

Andreas F., Smart Hearing Alliance bimodal user



Streaming with wireless accessories

The Smart Hearing Alliance also offers a range of wireless accessories which stream sound to your compatible sound processor and hearing aid to enhance your bimodal hearing experience.^{*} Using Bluetooth[®] technology, our wireless accessories provide stereo quality sound streamed to your devices without any interference.



ReSound Micro / Multi Mic or Cochlear Mini Microphone 2/2+

Microphone

By capturing sound and streaming it to your devices, our microphones are designed to help you confidently engage in conversation in noisy situations and hear better over distance.

ReSound TV Streamer 2 or Cochlear TV Streamer

TV Streamer

With your favourite television programs streamed to your devices you won't need to turn up the volume or use captions, making television time with family and friends enjoyable for everyone.



ReSound Phone Clip+ or Cochlear Phone Clip

Phone Clip

If you don't have a direct streaming compatible smartphone, you can still leave your phone in your pocket and enjoy the convenience of hands-free calling using a small and lightweight Phone Clip.

Could bimodal hearing be right for you?

Speak to your hearing care professional about bimodal hearing or find out more at **cochlear.com** or **resound.com**.

References

- Weaver, J. "Single-Sided Deafness: Causes, and Solutions, Take Many Forms." Hearing Journal 68.3 (2015): 20-24. Web. 28 Apr. 2017. http://journals.lww.com/thehearingjournal/Fulltext/2015/03000/Single_Sided_Deafness___Causes,_and_ Solutions,.1.aspx.
- Farinetti A, Roman S, Mancini J, et al. Quality of life in bimodal hearing users (unilateral cochlear implants and contralateral hearing aids). Eur Arch Otorhinolaryngol (2015 Nov); 272, 3209–3215.
- Ching TY, Incerti P, Hill M. Binaural benefits for adults who use hearing aids and cochlear implants in opposite ears. Ear Hear (2004 Feb); 25, 9–21.
- Potts LG, Skinner MW, Litovsky RA., et al. Recognition and localization of speech by adult cochlear implant recipients wearing a digital hearing aid in the nonimplanted ear (bimodal hearing). J Am Acad Audiol (2009 Jun); 20, 353–373.
- Morera C, Cavalle L, Manrique M, et al. Contralateral hearing aid use in cochlear implanted patients: Multicenter study of bimodal benefit. Acta Otolaryngol (2012 Jun); 132, 1084–1094.
- Gifford RH, Dorman MF, McKarns SA, Spahr AJ. Combined electric and contralateral acoustic hearing: Word and sentence recognition with bimodal hearing. Journal of Speech, Language, and Hearing Research. (2007 Aug) 1;50(4):835-43.
- 7. Sucher CM, McDermott HJ. Bimodal stimulation: benefits for music perception and sound quality. Cochlear Implants International. (2009 Jan); 1;10(S1):96-9.
- Buchman CA, Herzog JA, McJunkin JL, et al. Assessment of Speech Understanding After Cochlear Implantation in Adult Hearing Aid Users: A Nonrandomized Controlled Trial. JAMA Otolaryngol Head Neck Surg. Published online August 27, 2020. doi:10.1001/jamaoto.2020.1584
- Fitzpatrick EM, Leblanc S. Exploring the factors influencing discontinued hearing aid use in patients with unilateral cochlear implants. Trends in Amplification. 2010, 14; (4): 199–210.
- 10. Cochlear Limited. D1627134. Cochlear Bimodal Experience Survey April 2019. 2019, Oct. Data on file.
- 11. Cochlear Limited. D1190805. CP1000 Processor Size Comparison. 2019, Apr; Data on file.
- 12. Mauger SJ, Warren C, Knight M, Goorevich M, Nel E. Clinical evaluation of the Nucleus 6 cochlear implant system: performance improvements with SmartSound iQ. International Journey Of Audiology. 2014, Aug; 53(8): 564-576. [Sponsored by Cochlear].
- 13. Warren CD et al. Controlled comparative clinical trial of hearing benefit outcomes for users of the Cochlear™ Nucleus® 7 Sound Processor with mobile connectivity. Cochlear Implants International (2019 May); 20(3):116–126.
- Wolfe J, et al. Benefits of Adaptive Signal Processing in a Commercially Available Cochlear Implant Sound Processor. Otol Neurotol. 2015 Aug;36(7):1181-90.

* For compatibility information and devices visit cochlear.com/compatibility and resound.com/compatibility

Cochlear and ReSound collaborate in the Smart Hearing Alliance to develop advanced and innovative hearing solutions for you.



cochlear.com

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Hear now. And always



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GN Making Life Sound Better

ReSound is part of the GN group. GN makes life sound better through intelligent audio solutions.

Please seek advice from your health professional about treatments for hearing loss. Outcomes may vary, and your health professional will advise you about the factors which could affect your outcome. Always read the instructions for use. Not all products are available in all countries.

Views expressed are those of the individual. Consult your health professional to determine if you are a candidate for this technology. The Cochlear Nucleus Smart App is available on App Store and Google Play. The Cochlear Nucleus 7 Sound Processor is compatible with Apple and Android devices, for compatibility information visit www.cochlear.com/compatibility.

Cochlear, 科利耳, コクレア, 코클리어, Hear now. And always, Nucleus, Kanso, Advance Off-Stylet, AutoNRT, Contour Advance, Custom Sound, Freedom, NRT, SmartSound, the elliptical logo, and marks bearing an [®] or ™ symbol, are either trademarks or registered trademarks of Cochlear Limited (unless otherwise noted).

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