

Cochlear[™]Nucleus[®] 8 Sound Processor

Smaller. Smarter. Better connected.

A comparison with previous generation devices



Ð	
1	













					9			
Key features	Nucleus® Freedom® Sound Processor	Nucleus 5 Sound Processor	Nucleus 6 Sound Processor	Nucleus Kanso® Sound Processor	Nucleus 7 Sound Processor	Nucleus Kanso 2 Sound Processor	Nucleus 8 Sound Processor	Why it matters
Processor type	Behind-the-ear (BTE)	Behind-the-ear (BTE)	Behind-the-ear (BTE)	Off-the-ear (OTE)	Behind-the-ear (BTE)	Off-the-ear (OTE)	Behind-the-ear (BTE)	The Nucleus 8 Sound Processor is Cochlear's most advanced and the world's smallest and lightest behind-the-ear sound processor. An off-the-ear sound processor provides a more discreet hearing solution whilst delivering a similar hearing experience as a behind-the-ear sound processor.
Size and weight comparison	Nucleus® 8 is 45% smaller and 36% lighter than Freedom with standard rechargeable battery¹	Nucleus 8 is 29% smaller and 37% lighter than Nucleus 5 with compact rechargeable battery¹	Nucleus 8 is 32% smaller and 34% lighter than Nucleus 6 with compact rechargeable battery ¹	Lightest OTE option ¹	Nucleus 8 is 15% smaller and 13% lighter than Nucleus 7 with a compact rechargeable battery ¹	Smallest and lightest rechargeable OTE sound processor. Kanso® 2 is 2.4% smaller than Kanso¹	Smallest and lightest BTE sound processor ¹	At 15% smaller* than the Nucleus 7 Sound Processor and 32% smaller than Nucleus 6^, the Nucleus 8 Sound Processor is designed to take comfort to the next level.1
Sound processing technology		• SmartSound®	SmartSound iQ with SCAN	• SmartSound iQ with SCAN	• SmartSound iQ with SCAN	• SmartSound iQ with SCAN	• SmartSound iQ 2 with SCAN 2	The Nucleus 8 Sound Processor features smarter hearing technology ⁵ designed to make communicating with people, particularly in noise, easier. As you move through the day, your new sound processor senses changes in your listening environment and automatically adjusts using enhanced SmartSound iQ 2 with SCAN 2 to deliver clearer sound. ³⁻⁶
ForwardFocus					•	•	Improved noise reduction Option to automate	The Nucleus 8 Sound Processor features an improved ForwardFocus that more powerfully reduces distracting background noise when you want to focus on the face-to-face conversation. ^{6,*} Now with the choice to operate ForwardFocus manually via the Nucleus Smart App or have it automated, you can focus on what's important.†
Dual microphone directionality		•	•	•	•	•	•	Dual microphones matter when you want to experience clearer sound. The Nucleus 8 Sound Processor has dual-microphone technology with fixed and adaptive directionality which filters out background noise to enhance your understanding of speech, particularly in noise. ⁸
Control functionality	Two buttons	Two buttons	Two buttons	One button	One button	Button-free with Auto-On feature	One button	Single button control is designed for easier use. With the Nucleus 8 Sound Processor's simple one-button design you can change programs or control streaming from your True Wireless™ devices with ease.
Battery type	Body worn, disposable or rechargeable	Standard rechargeable or disposable	Standard and compact rechargeable or disposable	Disposable	Standard and compact rechargeable or disposable	Built-in rechargeable battery	Power Extend and Compact rechargeable or disposable	
Rechargeable battery charger	•	•	•	N/A	Two options: Y charger for home and USB portable charger	All-in-one Home Charger and optional Portable Charger	Two options: Y charger for home and USB portable charger	The Y charger can recharge two batteries at the same time while the USB charger is an optional accessory for recharging one battery when you're on the go.
Direct streaming capability			Via Cochlear Wireless Phone Clip	Via Cochlear Wireless Phone Clip	Compatible Apple or Android devices Cochlear Wireless Phone Clip*	Compatible' Apple or Android devices Cochlear Wireless Phone Clip	Ready for Bluetooth® LE Audio locations and devices, including compatible* Apple or Android devices Cochlear Wireless Phone Clip	Ready for next-generation Bluetooth LE Audio technology, the Nucleus 8 Sound Processor will make it easier to bring sound to you – in more places and from more devices than ever before. 8-10.** Experience the proven benefits of streaming audio directly to your sound processor. 9.11-13 In addition to connecting to compatible smartphones and laptops or to any compatible device at home or at work, you'll be able to connect directly to what's being broadcast at public venues such as airports, conference centres and theatres with Bluetooth Auracast**. And whether you're listening to music, taking a phone call, or watching your favourite film, Bluetooth LE Audio aims to get you the best possible audio experience. 8.10
Nucleus Smart App					•			With the Nucleus Smart App, you can adjust your hearing settings, activate True Wireless devices and ForwardFocus, track hearing information and set daily goals for listening to speech. Where available, you can even save yourself a trip to the clinic by using our Remote Care solutions to do a hearing check or video appointment with your clinician from home. For added peace of mind, the Find My Processor feature can help locate a misplaced processor.
FM connectivity	Via FM cable	Via FM cable and Roger FM receiver	Via Euro Accessory Adapter and Roger X FM receiver or Cochlear Wireless Mini Microphone 2+ and Roger X FM receiver	Via the Cochlear Wireless Mini Microphone 2+ and Roger X FM receiver	Via the Cochlear Wireless Mini Microphone 2+, Roger X FM receiver and Roger 20 FM receiver	Via the Cochlear Wireless Mini Microphone 2+, Roger X FM receiver and Roger 20 FM receiver	Via the Cochlear Wireless Mini Microphone 2+, Roger X FM receiver and Roger 20 FM receiver	FM systems are among the most common hearing assistive technologies used with children, especially in school environments. They are designed to provide improved hearing in noisy situations or over a distance.
Compatible with True Wireless™ devices			•	•	•	•	•	The Nucleus 8 Sound Processor's compatibility with the latest range of True Wireless devices offers you more control over your hearing experience. Enjoy convenient and independent volume control when watching TV with friends or family, clearly hear presentations or actively engage in group conversations.9
Bimodal streaming			True Wireless devices	True Wireless devices	Compatible' Apple and Android devices, True Wireless devices	Compatible' Apple and Android devices, True Wireless devices	Compatible Apple or Android devices*, True Wireless devices	If you have a cochlear implant on one ear and your other ear still can receive sound, you can consider a hearing aid for the other ear. This so called bimodal hearing can deliver to you a richer hearing experience, can help you better locate where sound is coming from, and help you to enhance your music appreciation. 14-16 Stream sound simultaneously to both your Nucleus 8 Sound Processor and compatible ReSound hearing aid with a smart bimodal hearing solution.*
Remote Control		Remote Assistant (CR110)	Remote Control (CR210) and Remote Assistant (CR230)	Remote Control (CR210) and Remote Assistant (CR230)	Nucleus Smart App and Remote Control (CR310)	Nucleus Smart App and Remote Control (CR310)	Nucleus Smart App and Remote Control (CR310)	If you don't have a compatible smartphone, the CR310 Remote Control has a handy display screen for changing simple settings, allowing you to discreetly manage your hearing.
Water-safe accessories		•	•	•	•		•	Nucleus 8 has the highest available IP68 rating, which means the sound processor is water resistant. For more security with water activities, you can use the Aqua+ to protect and retain your sound processor.
Retention accessories	Snugfit and Mic Lock	Snugfit and Mic Lock	Snugfit, Mic Lock	Safety Cord/Line, Hair clip, Headband	Snugfit, Hugfit™, Koala Clip, Safety Cord/ Line, Headband	Safety Cord/Line, Hair clip, Headband, Halo	Snugfit, Hugfit, Koala Clip, Safety Cord/Line, Headband	Cochlear Nucleus sound processors offer a wide range of retention options to suit your individual needs and lifestyle.
Compatible with monitor earphones	•	•	(CP910 only)		•	Sound Check in the Nucleus Smart App	•	Check the sound quality of the microphone or accessory input to your child's or another's sound processor.
Colour range	6 options	5 options	5 options	8 options	5 options	5 options	6 options Black Grey Silver White Sand Brown	The Nucleus 8 Sound Processor comes with an expanded colour selection and, for bimodal recipients, the option to coordinate your ReSound hearing aid with your new sound processor.
Nucleus implant compatibility	•	Except for Nucleus 22 Implants	•	Except for Nucleus 22 Implants	•	Except for Nucleus 22 Implants	Except for Nucleus 22 Implants	Our research and development is focused on offering the best hearing possible today, while also anticipating how technology and recipient needs will change over time. Cochlear is committed to ongoing innovation and developing new ranges of exciting products to help you achieve your best possible hearing outcomes at every stage of life.

Hear now. And always

Cochlear is dedicated to helping people with moderate to profound hearing loss experience a world full of hearing. As the global leader in implantable hearing solutions, we have provided more than 650,000 devices and helped people of all ages to hear and connect with life's opportunities.

We aim to give people the best lifelong hearing experience and access to next generation technologies. We collaborate with leading clinical, research and support networks to advance hearing science and improve care.

That's why more people choose Cochlear than any other hearing implant company.

References

- Cochlear Limited. D1190805 Processor Size Comparison.
- 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 Journal Of Audiology. 2014, Aug; 53(8): 564-576. [Sponsored by Cochlear]
- Mauger S, Jones M, Nel E, Del Dot J. Clinical outcomes with the Kanso off- the-ear cochlear implant sound processor. International Journal Of Audiology. 2017, Jan 9; 1-10. [Sponsored by Cochlear]
- Wolfe J, Neumann S, Marsh M, Schafer E, Lianos L, Gilden J, O'Neill L, Arkis P, Menapace C, Nel E, Jones M. Benefits of Adaptive Signal Processing in a Commercially Available Cochlear Implant Sound Processor. Otol Neurotol. 2015 Aug; 36(7):1181-90. [Sponsored by Cochlear]
- Cochlear Limited. D1864200 SCAN-X Design Description.
- Cochlear Limited. D1964109 Clinical Investigation Report CLTD5804 Feb 2022.
- Sivonen V, Willberg T, Aarnisalo A, Dietz A. The efficacy of microphone directionality in improving speech recognition in noise for three commercial cochlear-implant systems, Cochlear Implants International, 2020; 21:3, 153-159.
- 8. Hunn N. Introducing Bluetooth LE Audio [Internet]. [Cited 2022 Jan]. Available from: https://www.bluetooth.com/learn-about-bluetooth/recent-enhancements/le-audio/
- 9. Cochlear Limited. D1631375 Nucleus 8 Sound Processor Product Definition.
- 10. A Technical Overview of LC3 [Internet]. Bluetooth *Technology Website. [Cited 2022 Feb 28]. Available from: https://www.bluetooth.com/blog/a-technical-overview-of-lc3
- 11. Wolfe J, et al. Evaluation of a wireless audio streaming accessory to improve mobile telephone performance of cochlear implant users. International Journal of Audiology. 2016; 55(2):75-82.
- 12. Wolfe J, et al. Improving hearing performance for cochlear implant recipients with use of a digital, wireless, remote-microphone, audio-streaming accessory. J Am Acad Audiol. 2015 Jun; 26(6):532-9.
- 13. Warren C, Nel E, and Boyd P. Controlled comparative clinical trial of hearing benefit outcomes for users of the Cochlear Nucleus 7 Sound Processor with mobile connectivity. Cochlear Implants International (2019 Feb); 20(3)
- 14. 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.
- 15. Firszt JB, Reeder RM, Holden LK, Dwyer NY; Asymmetric Hearing Study Team. Results in Adult Cochlear Implant Recipients With Varied Asymmetric Hearing: A Prospective Longitudinal Study of Speech Recognition, Localization, and Participant Report. Ear Hear. 2018 Sep/Oct; 39(5):845-862
- 16. Potts LG, Skinner MW, Litovsky RA, Strube MJ, Kuk F. Recognition and localization of speech by adult cochlear implant recipients wearing a digital hearing aid in the nonimplanted ear (bimodal hearing). Journal of the American Academy of Audiology. 2009 Jun 1; 20(6):353-73.

■ Cochlear Ltd (ABN 96 002 618 073) 1 University Avenue, Macquarie University, NSW 2109, Australia T: +61 2 9428 6555 F: +61 2 9428 6352

©HREP Cochlear AG EMEA Headquarters, Peter Merian-Weg 4, 4052 Basel, Switzerland T: +41 61 205 8204 F: +41 61 205 8205

ECIRE Cochlear Deutschland GmbH & Co. KG Mailänder Straße 4 a, 30539 Hannover, Germany T: +49 511 542 7750 F: +49 511 542 7770

Cochlear Europe Ltd 6 Dashwood Lang Road, Bourne Business Park, Addlestone, Surrey KT15 2HJ, United Kingdom T: +44 1932 26 3400 F: +44 1932 26 3426

Cochlear Austria GmbH CEE Office, Millennium Tower, 45th Floor, Handelskai 94-96, 1200 Vienna, Austria T: +43 1 37600 26 000

Cochlear Benelux NV Schaliënhoevedreef 20 i, B-2800 Mechelen, Belgium T: +32 15 79 55 77

Cochlear Denmark Lejrvej 41, 3500 Værløse, Denmark T: +45 41 53 40 00

Cochlear Europe Limited Czech Branch Office, Prime Office Building, Lomnického 1742/2a, 140 00 Praha 4, Czech Republic T: +420 222 13 53 13

Cochlear France SAS 135 route de Saint Simon, CS 43574, 31035 Toulouse, France T: +33 5 34 63 85 85 (international) or 0805 200 016 (national) F: +33 5 34 63 85 80 Cochlear Italia S.r.l. Via Trattati Comunitari Europei 1957-2007 n.17, 40127 Bologna, Italy T: +39 051 601 53 11 F: +39 051 39 20 62

Cochlear Middle East FZ-LLC Dubai Healthcare City, Al Razi Building 64, Block A, Ground Floor, Offices IR1 and IR2, Dubai, United Arab Emirates T: +971 4 818 4400 F: +971 4 361 8925

Cochlear Nordic AB Huopalahdentie 24, 00350 Helsinki, Finland T: +358 20 735 0788

Cochlear Nordic AB Konstruktionsvägen 14, 435 33 Mölnlycke, Sweden T: +46 31 335 14 61

Cochlear Norway AS Postboks 6614, Etterstad, 0607 Oslo, Norway T: +47 22 59 47 00

Cochlear Tibbi Cihazlar ve Sağlık Hizmetleri Ltd. Şti. Küçükbakkalköy Mah., Defne Sok. Büyükhanlı Plaza No:3, Kat:3 D:9-10-11-12, 34750 Ataşehir/ İstanbul, Türkiye T: +90 216 538 5900 F: +90 216 538 5919

www.cochlear.com/nucleus8









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 follow the directions for use. Not all products are available in all countries. Please contact your local Cochlear representative for

- # Comparison made using the Compact Battery Module for Nucleus 8 Sound Processor and the Compact Rechargeable Battery for Nucleus 7 Sound Processor
- ^ Comparison made using a Compact Battery Module with the Nucleus 8 Sound Processor and the Nucleus 6 (CP910) Sound Processor
- > Compared to previous generation Nucleus 7 and Nucleus 6 Sound Processors + Compared to Nucleus 7 Sound Processor with ForwardFocus on
- † ForwardFocus is a clinician-enabled feature that can be user controlled or automated.
- ~ The Nucleus 8 Sound Processor with Aqua+ is dust and water resistant to level of IP68 of the International Standard IEC60529. The Nucleus 8 Sound Processor with Aqua+ can be continuously submerged under water to a depth of up to 3 metres for up to 2 hours. Refer to the relevant user guide for more information.
- * The Cochlear Nucleus 8, Nucleus 7 and Kanso 2 sound processors are compatible with Apple and Android devices. The Cochlear Nucleus Smart App is available on App Store and Google Play. For compatibility information visit www.cochlear.com/compatibility and www.resound.com/compatibility
- ** When this technology becomes available, a firmware update to your sound processor will allow you to connect to Bluetooth LE Audio compatible devices.

ACE, Advance Off-Stylet, AOS, Ardium, AutoNRT, Autosensitivity, Baha, Baha SoftWear, BCDrive, Beam, Bring Back the Beat, Button, Carina, Cochlear, 科利耳, コクレア, 코클리어, Cochlear SoftWear, Contour, コントゥア, Contour Advance, Custom Sound, DermaLock, Freedom, Hear now. And always, Hugfit, Human Design, Hybrid, Invisible Hearing, Kanso, LowPro, MET, MP3000, myCochlear, mySmartSound, NRT, Nucleus, Osia, Outcome Focused Fitting, Off-Stylet, Piezo Power, Profile, Slimline, SmartSound, Softip, SoundArc, True Wireless, the elliptical logo, Vistafix, Whisper, WindShield and Xidium are either trademarks or registered trademarks of the Cochlear group of companies. Android is a trademark of Google LLC. Apple is a trademark of Apple Inc., registered in the U.S. and other countries. The Bluetooth® and Auracast® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Cochlear Limited is under license.