

BONE-ANCHORED HEARING SYSTEM

Ponto 3 – The Definition of Power



45 dB HL



55 dB HL



65 dB HL



Oticon
BrainHearing™
Technology



oticon
MEDICAL

Ponto 3 – The Definition of Power

Power your Brain

The Ponto System supports the brain's cognitive processes by using Direct Sound Transmission and the Inium Sense platform. This helps the brain to decode the sound environment and focus on the important hearing details.

Powerful sound quality

Ponto 3 has the highest ever output from an abutment-level processor, the industry's widest bandwidth, and the Inium Sense platform for greater clarity and understanding.

Power to participate

Ponto 3 connects seamlessly to a wide range of communication and entertainment devices without compromising sound processor power or sound quality. And its proven design offers functionality and reliability in everyday life.



**Better
hearing
begins
here**



Oticon Medical introduces BrainHearing™

BrainHearing™ is about a fundamental understanding of how hearing works – and how the brain makes sense of sound.

Ponto 3 – The world's most powerful family of abutment-level processors



Ponto 3
45 dB HL

Ponto 3 Power
55 dB HL

Ponto 3 SuperPower
65 dB HL

SuperPower maximum output 135 dB μ N
Highest output ever from an abutment-level sound processor

HIGHEST EVER

Bandwidth 260 – 9600 Hz
The widest frequency bandwidth in the industry

WIDEST

FreeFocus optimized directionality
Better speech understanding in everyday listening situations

NEW

Inium Sense feedback shield
Managing power through effective feedback control

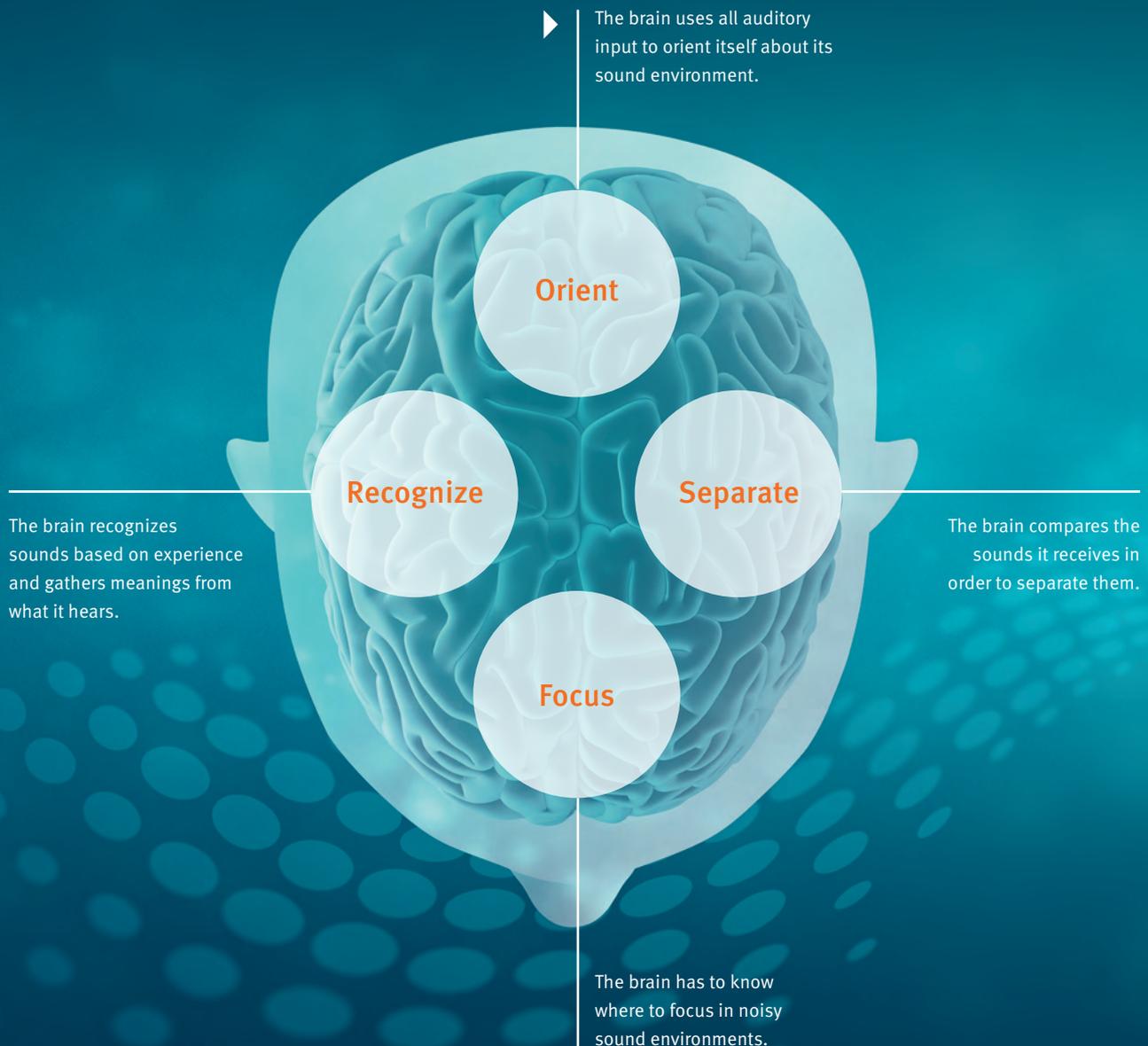
DSL-BC fitting rationale
Tailor-made for BAHS

NEW

Power your brain

The most important part of hearing

When we think about hearing, we automatically think about the ears, although in fact sound is heard and processed by the brain. Hearing loss puts extra strain on the brain, which then has to work harder to decode the sound signals it receives. That is why we provide audibility and signal processing that support the brain's cognitive processes. BrainHearing™ is about making listening easy for every user - whether they are learning at school, attending a meeting at work, or socializing with friends.



The prerequisite for BrainHearing™



Output



Bandwidth



Clarity



Direct Sound Transmission and the Inium Sense platform are the unique enablers of BrainHearing™ for Ponto and the prerequisites for delivering the **output, bandwidth, and clarity** users need to experience **powerful sound quality**.

Direct Sound Transmission

Direct Sound Transmission systems such as the Ponto 3 abutment solution with a direct connection to the bone can provide an extra 10-20 dB of output in the mid- to high-frequency range.¹ This range contains the most important sound information for speech understanding.



Inium Sense Platform

The Inium Sense chip delivers increased processing power and advanced sound processing technologies for improved signal clarity. This helps the brain to decode sound and focus on the important hearing details.

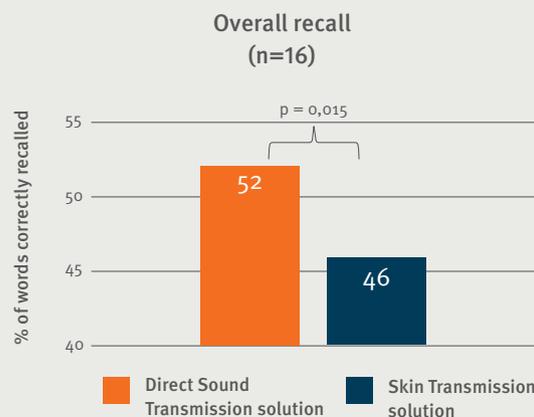


Direct Sound Transmission means less listening effort

If the brain is not getting the right sounds to work with, it takes intense effort to create meaning. We know patients hear best when nothing stands between them and the sounds they want to hear. Direct Sound Transmission provides more sound to support the brain's cognitive processes, which reduces the effort spent on listening.²



13% improvement of words correctly recalled



Study participants experienced greater recall of words with the Direct Sound Transmission via the abutment when compared with a Skin Transmission solution via softband.²

Softband and magnetic solutions perform similarly.³

Powerful sound quality

Output and bandwidth matter

The more power we build in, the more users get out in terms of audibility and understanding. That's why we continuously focus on making Ponto **more powerful** so that it can deliver **higher output (MFO) across the entire bandwidth**. This leaves more room for more sound in everyday situations.





More power

Users of bone-anchored devices can always benefit from higher output, as this expands the range of sounds they can hear.

Many users have good hearing at a cochlear level, so it's important that the sound processor can reproduce soft and loud sounds. Higher output across the entire bandwidth provides access to an increased dynamic range. This enables users of Ponto 3 to enjoy a broader sound experience.

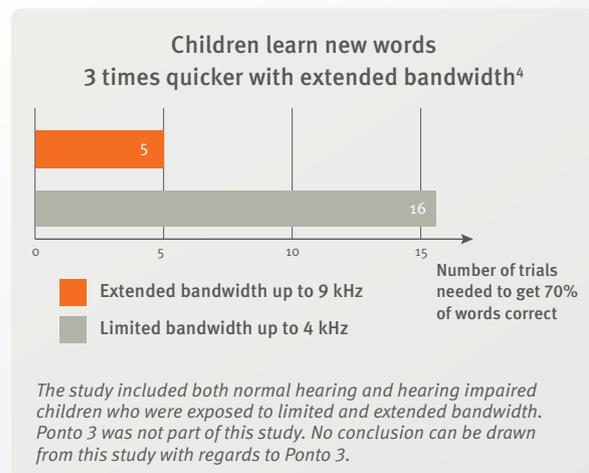
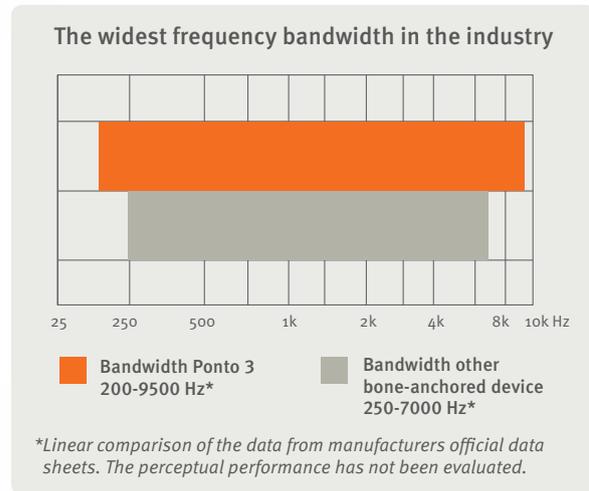
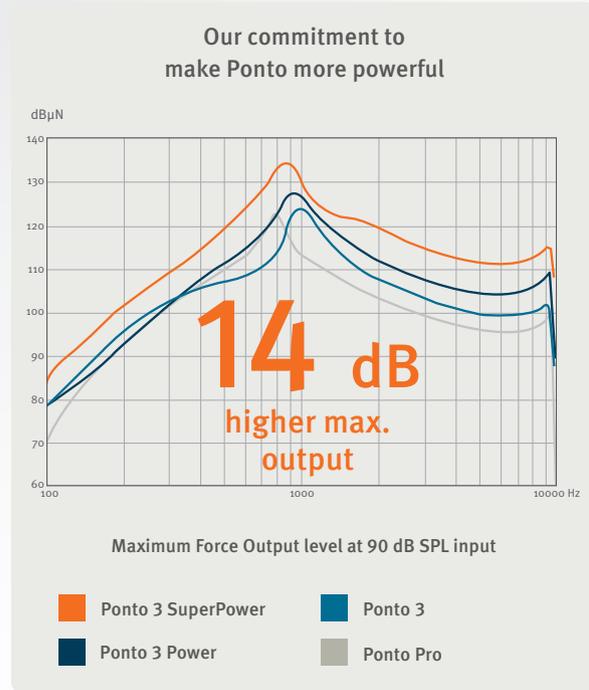


The unique **UltraDrive™** technology in Ponto 3 SuperPower together with the new Inium Sense platform allows us to boost the signal to the transducer while minimizing the risk of feedback.

← 38% → WIDER FREQUENCY BANDWIDTH

The importance of extended bandwidth

To develop language skills, children need access to the clearest, most complete auditory signal and the widest dynamic range. A study suggests that children listening to words under an extended bandwidth condition learned new words three times as quickly compared to children listening to the same words under a limited bandwidth.⁴ This knowledge highlights the importance of extended bandwidth and provides valuable insight to our sound processor development.



Powerful sound quality

Power to focus and understand

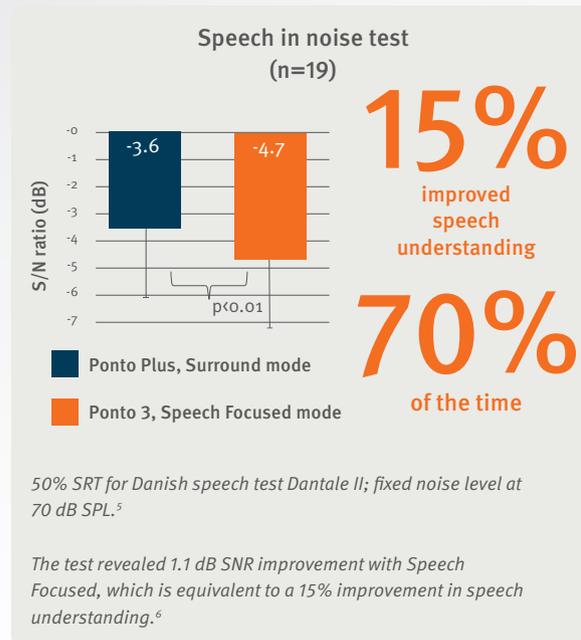
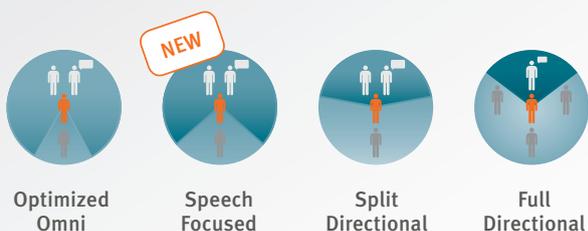
We say ultimate sound quality is when you hear your surroundings without noticing your sound processor. A sound processor should support patients in all the listening situations they encounter – from a noisy sporting event to a family dinner, and everything in between. And this is where the most advanced sound technology can make a difference.





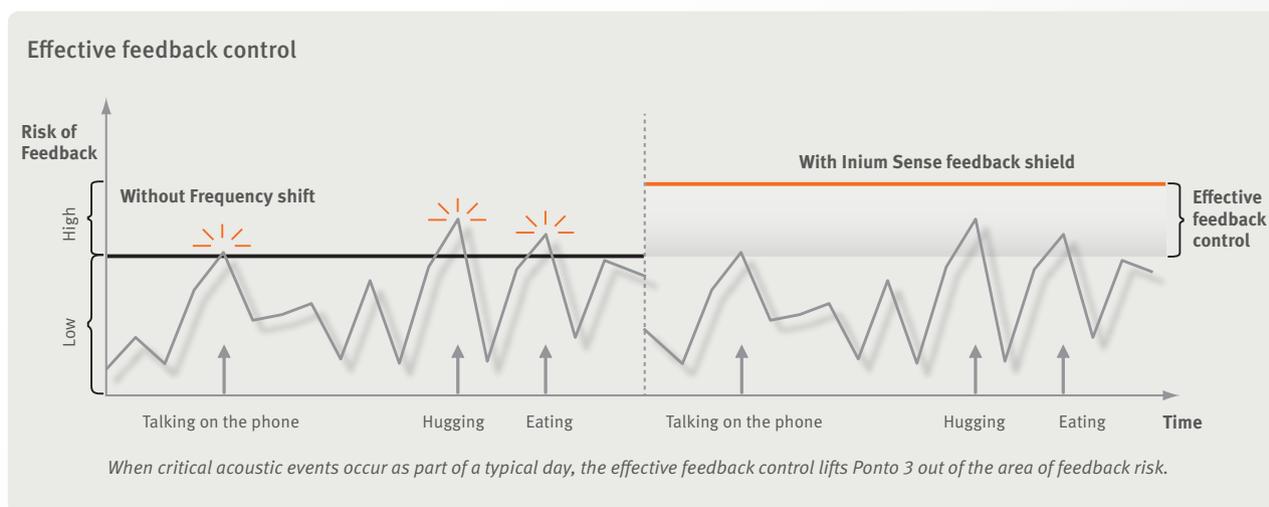
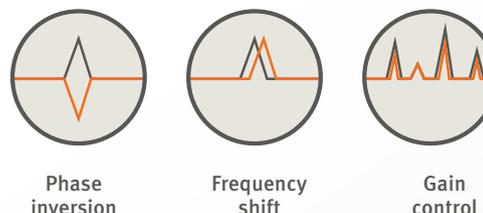
Better speech understanding with FreeFocus

In order to better recognize a sound, users need to know what is happening around them. Ponto 3 uses the FreeFocus directional system, designed to help the brain focus while continuing to orient and separate sounds. It automatically supports users when moving from one environment to another. A typical user spends 70% of time in Omni directional mode. With its unique Speech Focused mode, Ponto 3 provides 15% better speech understanding in the majority of everyday listening situations.



All the power with minimal feedback

To avoid potential feedback that can interrupt speech understanding and communication, the Ponto 3 uses the Inium Sense feedback shield. This Feedback Management system combines different technologies for ultra-fast detection of feedback and its effective elimination. It runs continuously but only acts in critical situations where feedback is likely to occur.



Power to participate

Communication today is much more than just face-to-face conversations. That's why the Ponto 3 lets users wirelessly connect to a wide variety of electronic devices, such as cell phones, TV, looped environments, and more via the Oticon Medical Streamer, without ever putting power at risk. Furthermore, all parts of the sound processor are extensively tested to ensure the Ponto 3 delivers the reliability and performance an active lifestyle requires.



Wireless connectivity that doesn't compromise power

Through the Oticon Medical Streamer, users can connect electronic devices with Ponto 3. This intuitive device and the accompanying **ConnectLine App** let users access and control their most important communication devices, looped environments, FM systems, and much more. All without compromising on the power, sound quality, or battery lifetime that they rely on.



Apple, the Apple logo, iPhone, iPad, iPod touch, and Apple Watch are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc. Android, Google Play, and the Google Play logo are trademarks of Google Inc.

Quality you can rely on

As part of the William Demant Group of hearing health care companies, Oticon Medical can draw on the technological advances of Oticon and enjoy its advanced testing facilities. The Ponto 3 sound processor has an IP57* classification and has been thoroughly tested in over 30 different reliability tests. From humidity and drop tests to compatibility tests, the results prove that Ponto 3 supports an active lifestyle – all day, every day.



Use QR code to see how we test Ponto sound processors.

Ponto sound processors undergo over 30 different reliability tests



* Please note, Ponto 3 is not waterproof. Users should remove their sound processor while showering or bathing. Please visit www.oticonmedical.com/connectlineapp for details on compatibility.

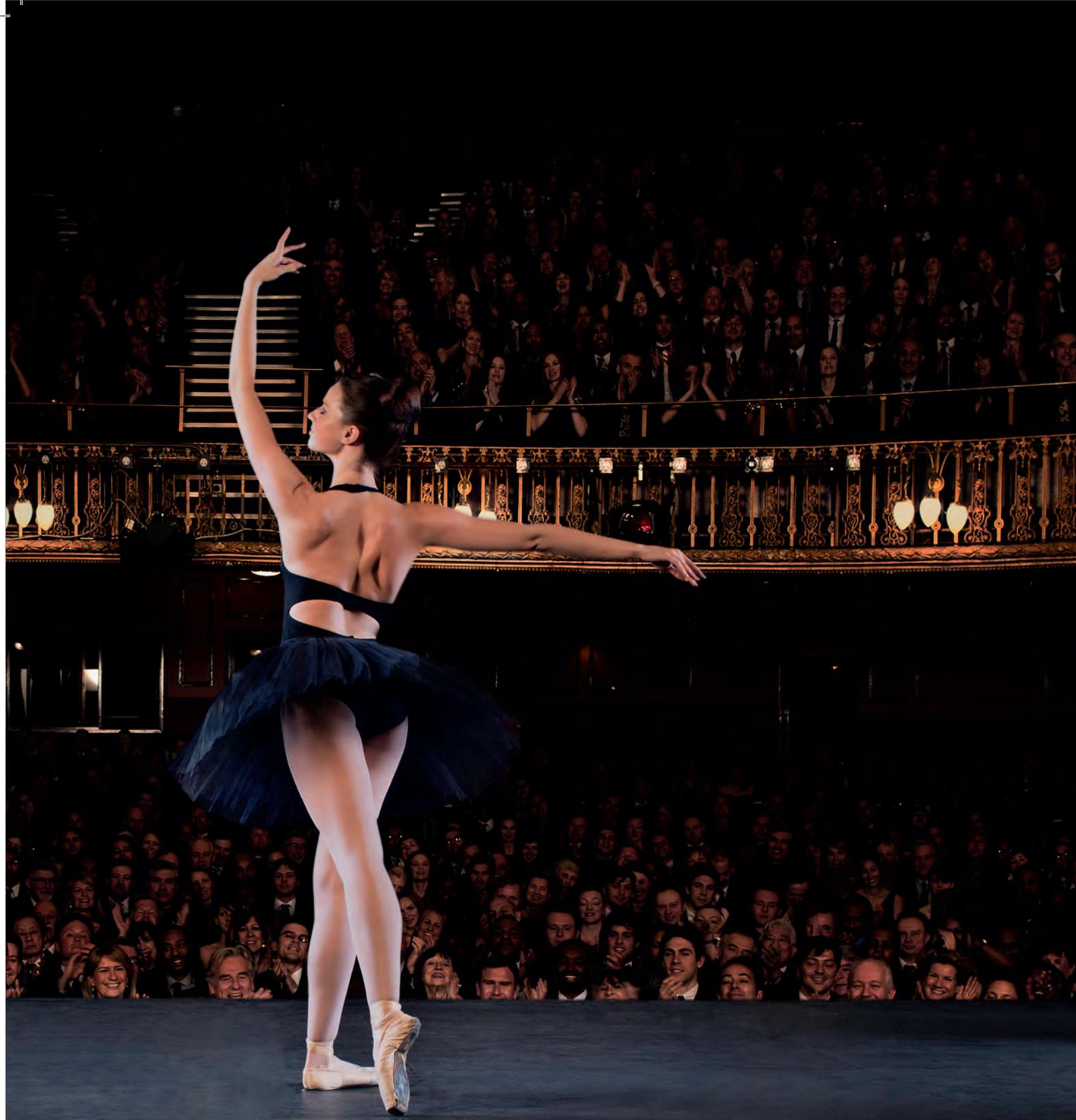
SuperPower made beautiful

Ponto 3 SuperPower uses UltraDrive™ technology and combines a discreet design and small size with a battery that is designed to last. This means that users who require a SuperPower device can benefit from the same award-winning design as users with a more minor hearing loss. It connects simply to the abutment and requires no strings or bulky ear- or body-worn devices.



Discreet, organic design

Ponto 3 is available in dedicated left and right versions that smoothly follow the contours of the outer ear. Users can choose from six different colors that blend in with most hair shades.



Ease of use

The design of Ponto 3 manages to be discreet without compromising usability. For example, changing the volume is easy, and the push button makes program selection and muting simple, while the battery door is designed for smooth opening. Furthermore, Ponto 3 features **binaural synchronization and coordination**, allowing users of two processors to adjust both processors from one sound processor.



Same functionality valid for all Ponto 3 sound processors.

Empowering children

Development starts with sound

The power of the Ponto 3 offers children with hearing loss access to the speech and sounds they need to develop language. Whether in the classroom listening to the teacher, in the schoolyard with friends, or playing on the computer, the Ponto 3 supports communication so children can be an active part of the world around them.





Safe



Flexible



Colors



Cap

The new Ponto Softband

The Ponto Softband has been redesigned. For example, the sound processor can now be worn on a favorite cap or piece of headwear. The Ponto Softband is an ideal way for children to experience the many benefits of the Ponto 3 sound processor without the need for surgery.

- 14 different colors – for the widest choice
- New wearing option – for cap or headwear
- Flexible – for one or two processors and adjustable to fit most head sizes
- Comfortable – for all-day use
- Safe – skin-friendly and with a safety release
- Proven performance – extensively tested to ensure premium sound quality and reliability

Individual style

Ponto 3 comes with a variety of skins and stickers that let users personalize and change the look of the processor.

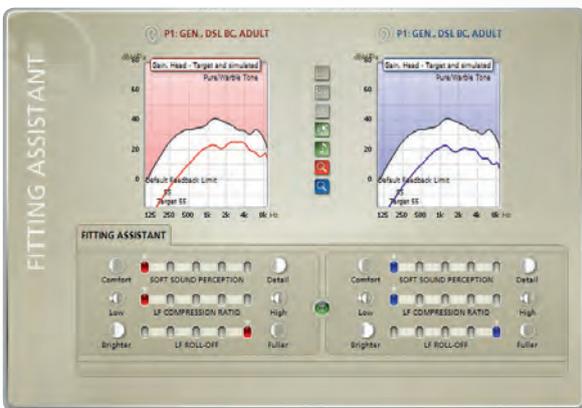


Ponto SoundConnector™



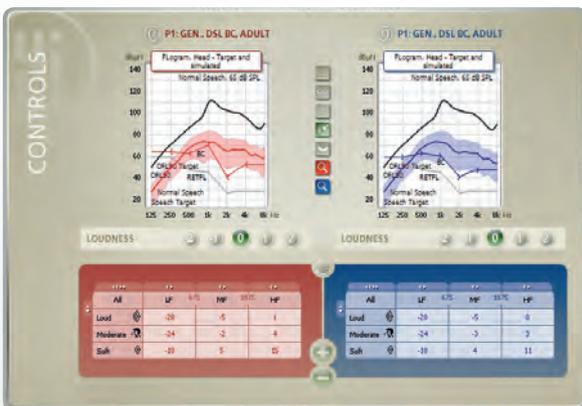
A few moments to a perfect fit

The new intuitive Genie Medical makes it easier for hearing healthcare professionals to provide a **more individualized fitting** of Ponto. New tools and updated features allow professionals to give users the best possible sound quality.



Adjust with new Fitting Assistant tool

The new Fitting Assistant tool allows quick adjustment of compression, low frequency gain, and Soft Sound Perception that increases gain for low input levels.



Evaluate with new Flogram

The new Flogram visualizes the patient's auditory dynamic range for Ponto fittings on abutment. This makes it simple to evaluate audibility and dynamic range with the sound processor setting.

New DSL-BC fitting rationale – tailor-made for bone-anchored hearing

Oticon Medical is the first in the industry to provide the DSL-BC fitting rationale. This widespread hearing aid rationale has now been specifically adapted to the needs of bone-anchored users.



Bill Hodgetts
Associate Professor
University of Alberta

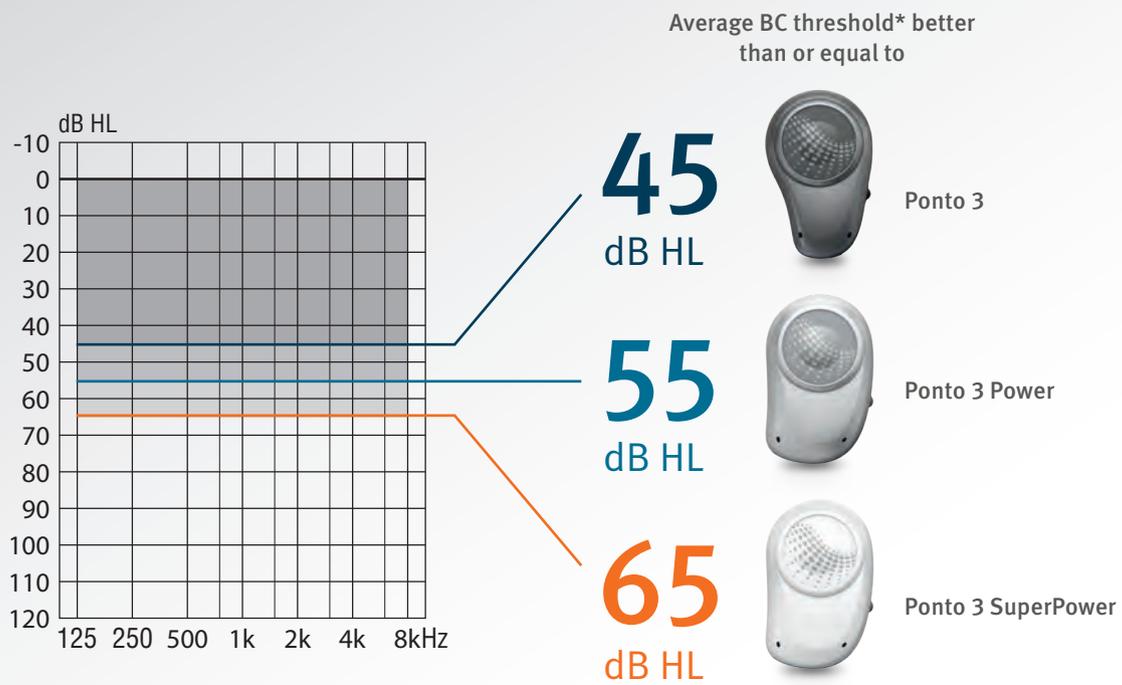


Susan Scollie
Associate Professor
University of Western Ontario



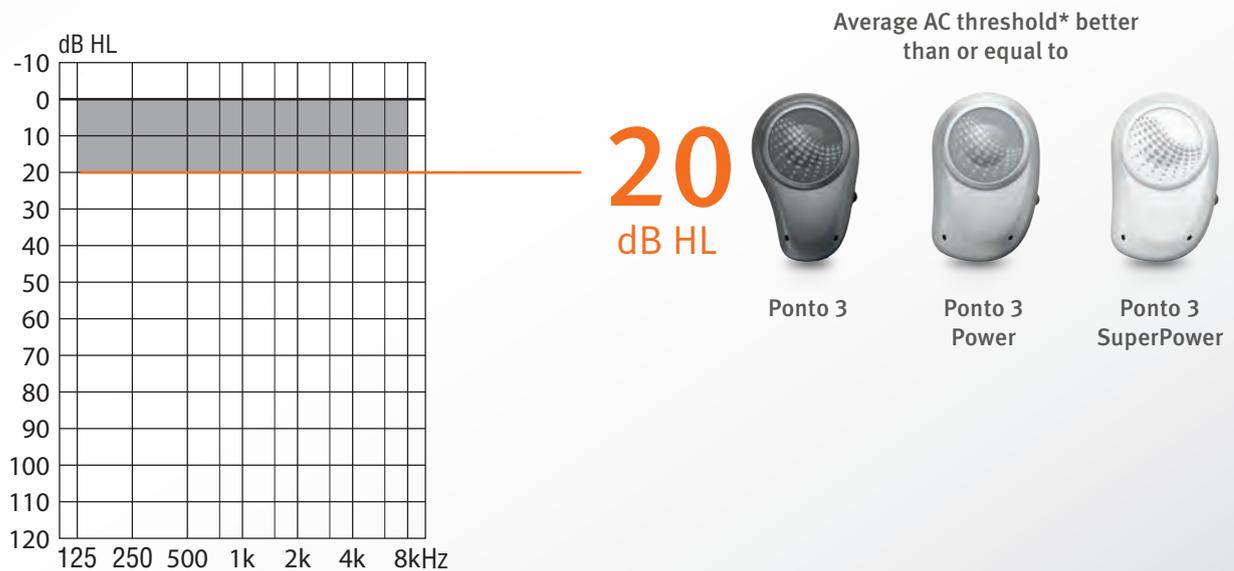
Fitting Range

Conductive / Mixed hearing loss



Fitting Range

Single-sided deafness



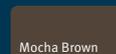
*Average of 0.5, 1, 2, and 3 kHz

Ponto 3 – The world's most powerful family of abutment-level processors



Features	Ponto 3	Ponto 3 Power	Ponto 3 SuperPower
Fitting range	Up to 45 dB HL	Up to 55 dB HL	Up to 65 dB HL
Peak OFL at 90 dB SPL	124 dB rel. 1µN	128 dB rel. 1µN	135 dB rel. 1µN
Frequency range	200 Hz – 9.5 kHz	260 Hz – 9.6 kHz	260 Hz – 9.6 kHz
FreeFocus	•	•	•
Inium Sense feedback shield	•	•	•
UltraDrive™ technology			•
Wind Noise Reduction	•	•	•
Speech Guard	•	•	•
Tri-state Noise Reduction	•	•	•
Binaural Coordination & Synchronization	•	•	•
Dimensions (L*W*H)	34* 21* 11 mm	34* 21* 14 mm	34* 21* 14 mm
Weight without battery	14 g	17 g	17 g
Battery size	13	675	675P
Up to 4 programs	•	•	•
Wireless connectivity	Via Oticon Medical Streamer & ConnectLine App	Via Oticon Medical Streamer & ConnectLine App	Via Oticon Medical Streamer & ConnectLine App
Tamper-proof battery door	•	•	•
Volume control	•	•	•

Colors



References

1. Verstraeten N, Zarowski AJ, Somers T, Riff D and Offeciers EF (2008). Comparison of the audiological results obtained with the bone-anchored hearing aid attached to the headband, the testband, and to the "snap" abutment. *Otology & Neurotology* 30: 70-75
2. Lunner T, Rudner M, Rosenbom T, Ågren J and Ng EHN (2016). Using speech recall in hearing aid fitting and outcome evaluation under ecological test conditions. *Ear & Hearing*; 37; 145S- 154S
3. Briggs R, Hasselt AV, Luntz M, Goycoolea M, Wigren S, Weber P, Smeds H, Flynn M, and Cowan R (2015). Clinical Performance of a New Magnetic Bone Conduction Hearing Implant System: Results from a Prospective, Multicenter, Clinical Investigation. *Otology & Neurotology*, Jun; 36(5): 834-41
4. Pittman AL (2008). Short-term word-learning rate in children with normal hearing and children with hearing loss in limited and extended high-frequency bandwidths. *Journal of Speech, Language, and Hearing Research*. Vol. 51; 785-797. Summary of bandwidth study
Purpose: This study examined children's word learning in limited and extended high-frequency bandwidth conditions. These conditions represent typical listening environments for children with hearing loss (HL) and children with normal hearing (NL), respectively.
Method: Thirty-six children with NH and 14 children with moderate-to-severe HL served as participants. All of the children were between 8 and 10 years of age and were assigned to either the limited or the extended bandwidth conditions. Five nonsense words were paired with 5 novel pictures. Word learning was assessed in a single session, multitrial, learning paradigm lasting approximately 15 min. Learning rate was defined as the number of exposures necessary to achieve 70% correct performance.
Results: Analysis of variance revealed a significant main effect for bandwidth but not for group. A Bandwidth x Group interaction was also not observed. In this short-term learning paradigm, the children in both groups required 3 times as many exposures to learn each new word under limited bandwidth conditions compared with extended bandwidth conditions.
Conclusion: These results suggest that children with HL may benefit from extended high-frequency amplification when learning new words and for other long-term auditory processes.
5. FreeFocus feature test report (2016), Oticon Medical report no 34425-o0
Summary of FreeFocus test
Objectives: The objective was to compare the subjective and objective outcome of the Free Focus directionality system in Ponto 3 to the directionality system in Ponto Plus.
Design: 19 adult patients with conductive (5), mixed (9) and SSD (5) hearing losses were included; they were all using Ponto Plus prior to the study. FreeFocus with either Speech Omni/Speech Focused or Optimized Omni were tested in randomized order, each for a two-week trial period. At the first visit speech in noise test (Dantale II) were performed with all three omni-directionality settings, with SON+/-110, 180 loudspeaker set-up, noise fixed @ 70dB SPL. SSQ questionnaire were filled in at each of 3 visits after the field testing. At the end of the study patients were asked about their preference.
Results: Speech intelligibility in noise and subjective ratings of the SSQ subscale Speech and Spatial were statistically significantly higher for the FreeFocus Speech Omni/Speech Focused setting compared to the directional system in Ponto Plus and the Optimized Omni setting. The Speech Omni/Speech Focused and Optimized Omni settings were preferred over reference directional system in Ponto Plus, and Speech Omni/Speech Focused were preferred over Optimized Omni for the majority of patients.
Conclusion: The Free Focus with Speech Omni/Speech Focused setting provides significant increased speech understanding judged subjectively after trial in everyday listening situations, and objectively measured with speech in noise test, showing 1.1 dB improved SNR
6. Wagener K, Josvassen JL, Ardenkjær R (2003) Design, optimization and evaluation of a Danish sentence test in noise. *International Journal of Audiology*; 42: 10-17



Because sound matters

Oticon Medical is a global company in implantable hearing solutions, dedicated to bringing the magical world of sound to people at every stage of life. As a member of one of the world's largest groups of hearing healthcare companies, we share a close link with Oticon and direct access to the latest advancements in hearing research and technologies. Our competencies span more than a century of innovations in sound processing and decades of pioneering experience in hearing implant technology.

By working collaboratively with patients, physicians, and hearing care professionals, we ensure that every solution we create is designed with user needs in mind. We share an unwavering commitment to providing innovative solutions and support that enhance quality of life for people wherever life may take them. Because we know how much sound matters.

Manufacturer:
Oticon Medical
Datavägen 37B
SE-436 32 Askim
Sweden
Tel: +46 31 748 61 00
E-mail: info@oticonmedical.com

173197US / 2016.10