

Ponto 3 – The Definition of Power

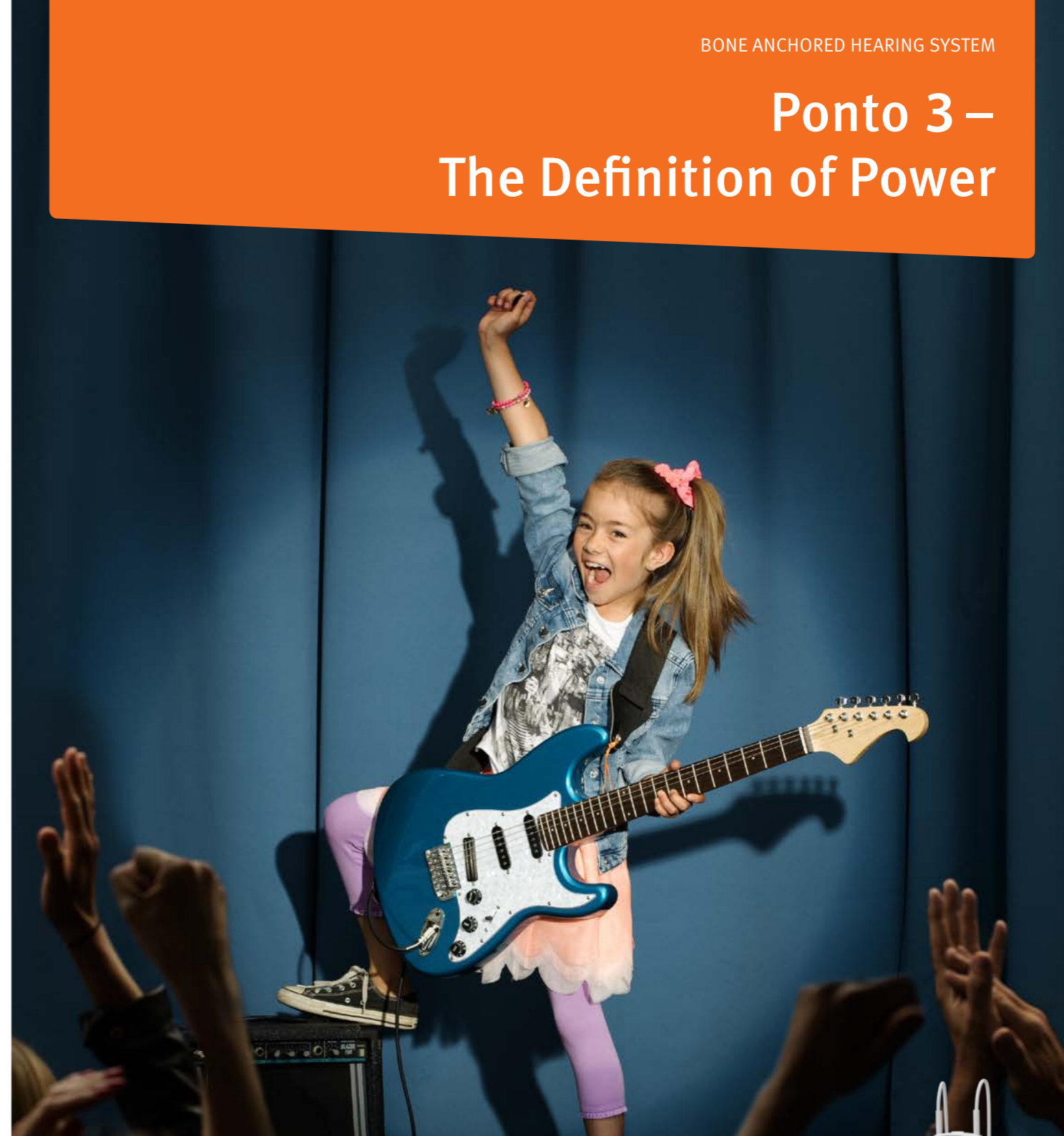


Because sound matters

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 provide innovative solutions and support that enhance quality of life for people wherever life may take them. Because we know how much sound matters.

M52871UK / 2016.10



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



45 dB HL



55 dB HL



65 dB HL



Oticon
BrainHearing™
Technology



Ponto 3 – The Definition of Power

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

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 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.

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



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

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

FreeFocus optimised directionality
Better speech understanding in everyday listening situations

Inium Sense feedback shield
Managing power through effective feedback control

DSL-BC fitting rationale
Tailor-made for BAHS



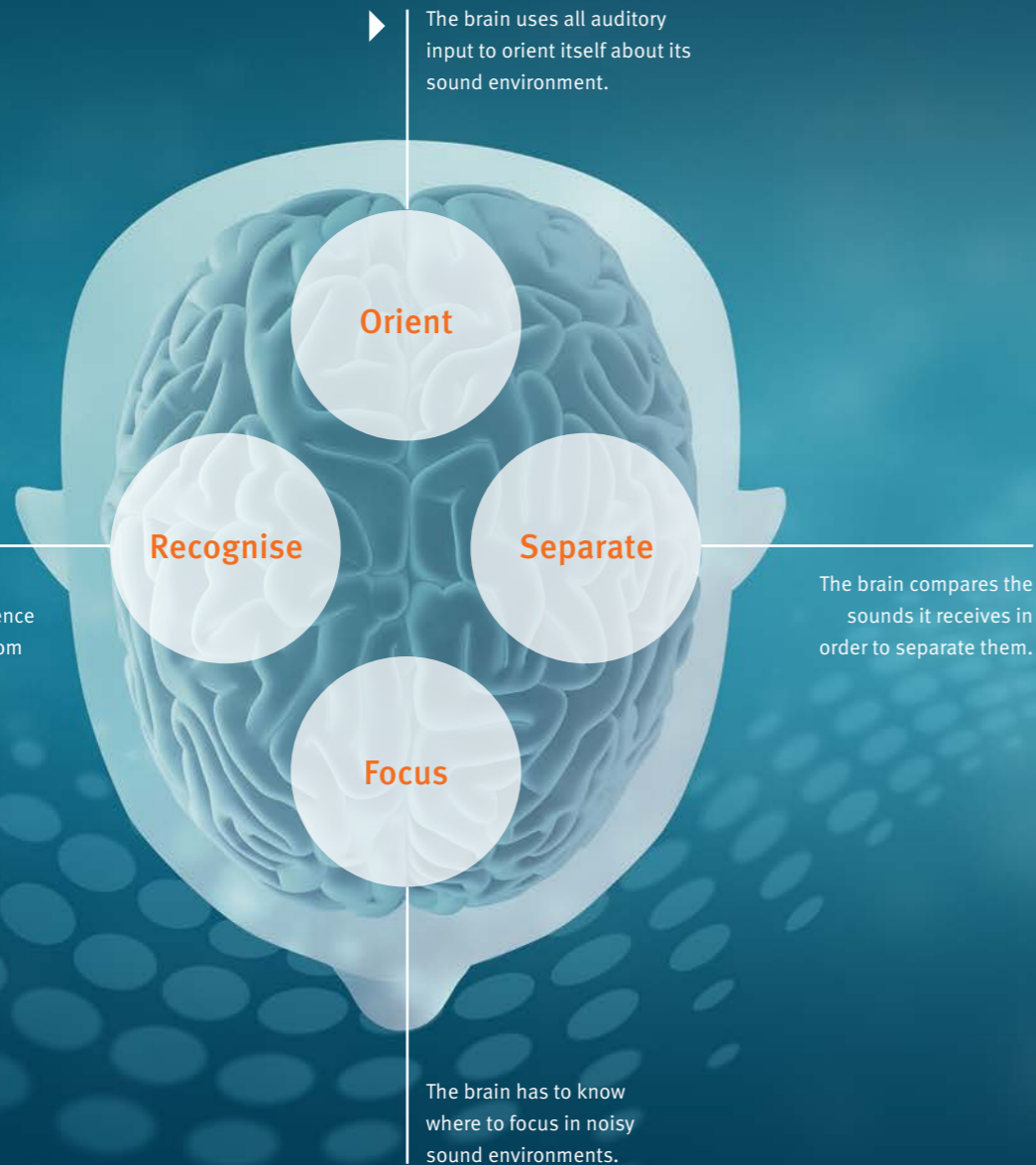
Oticon Medical introduces BrainHearing™

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

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 socialising with friends.



The prerequisite for BrainHearing™

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.



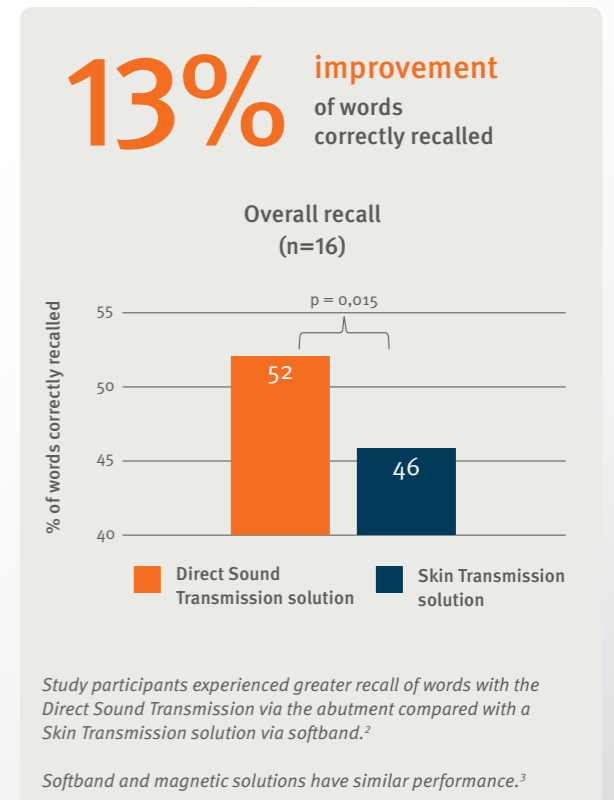
Inium Sense Platform

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



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 it can deliver **higher output (MFO) across the entire bandwidth**. This leaves more room for more sound in everyday situations.



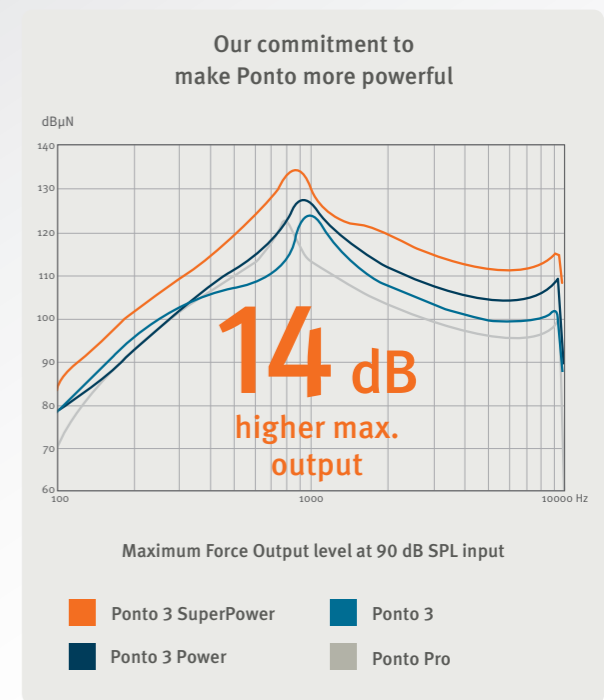
More power

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

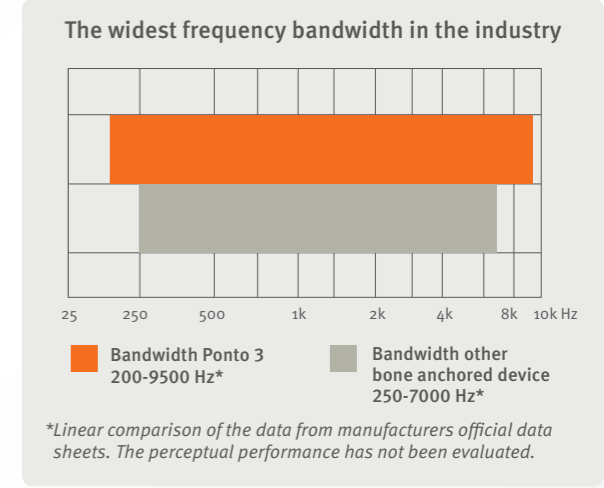
Many users have good hearing at a cochlear level, so it's important that the sound processor can reproduce soft and loud sounds. Higher output across the entire bandwidth provides access to an increased dynamic range. This enables users of Ponto 3 to enjoy a broader sound experience.



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 minimising the risk of feedback.

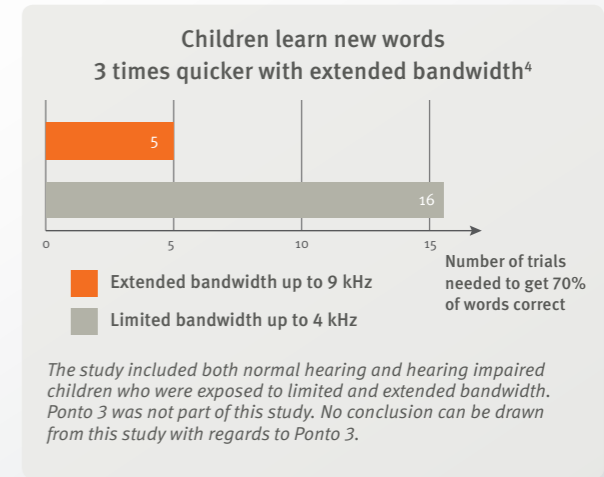


← **38%** →
WIDER
 FREQUENCY BANDWIDTH



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 learnt 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

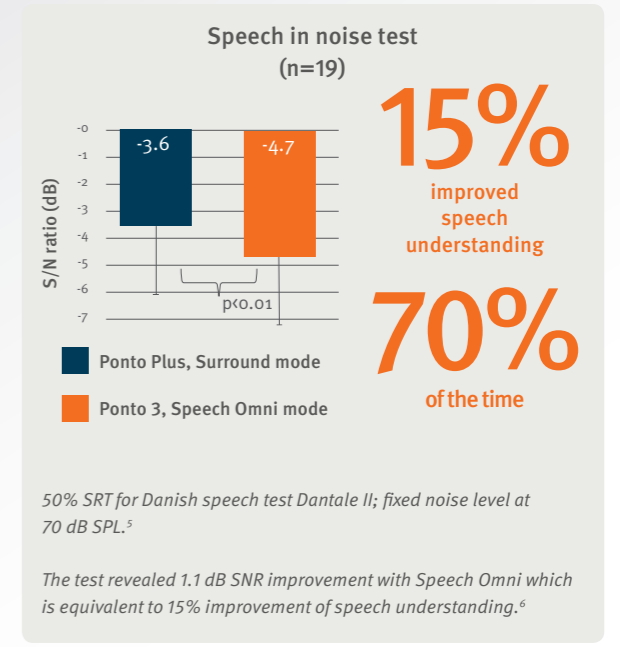
Power to focus and understand

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.



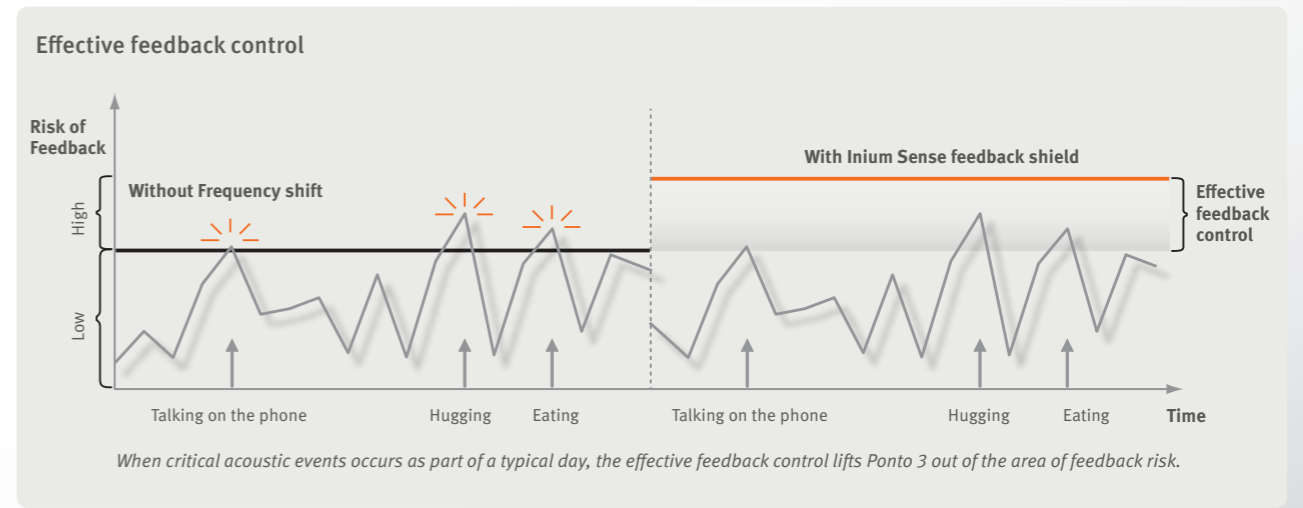
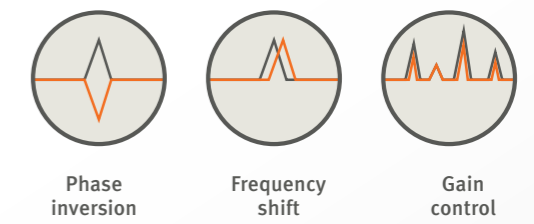
Better speech understanding with FreeFocus

In order to better recognise 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 Omni 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.



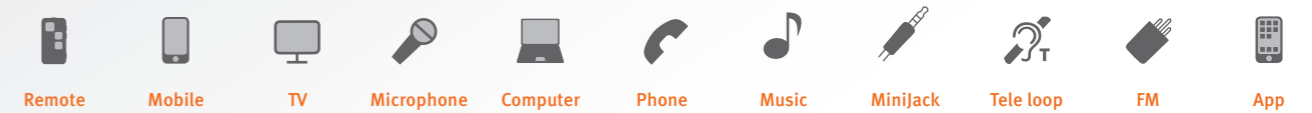
Power to participate

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 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

<p>Water resistance* - 1 metre for 30 min.</p>	<p>Drop test - 150 cm</p>
<p>Extreme temperatures - from -40° C to +85° C</p>	<p>Sweat, moisture and humidity test</p>

* 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, small size and 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 colours 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, the push button makes program selection and muting simple, while the battery door is designed for smooth opening. Furthermore, Ponto 3 features **binaural synchronisation 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.



The new Ponto Softband

The Ponto Softband has been redesigned. For example, the sound processor can now be worn on a favourite 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 colours – for the widest choice
- New wearing option – for cap or headwear
- Flexible – for one or two processors and adjustable to 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

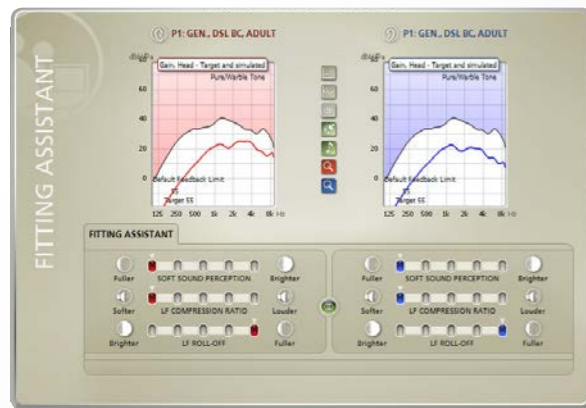
Individual style

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



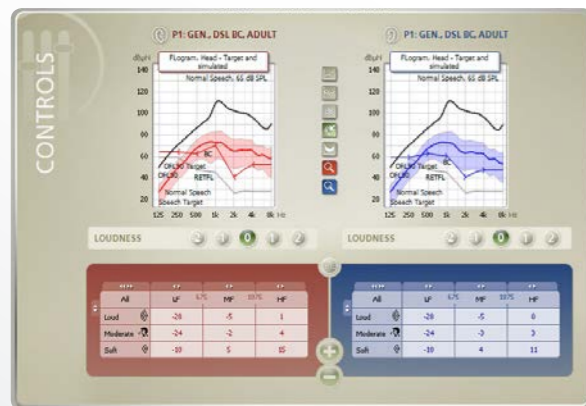
A few moments to a perfect fit

The new intuitive Genie Medical makes it easier for hearing healthcare professionals to provide a **more individualised 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.

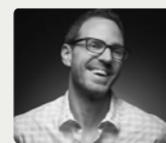


Evaluate with new FLogram

The new FLogram visualises 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.



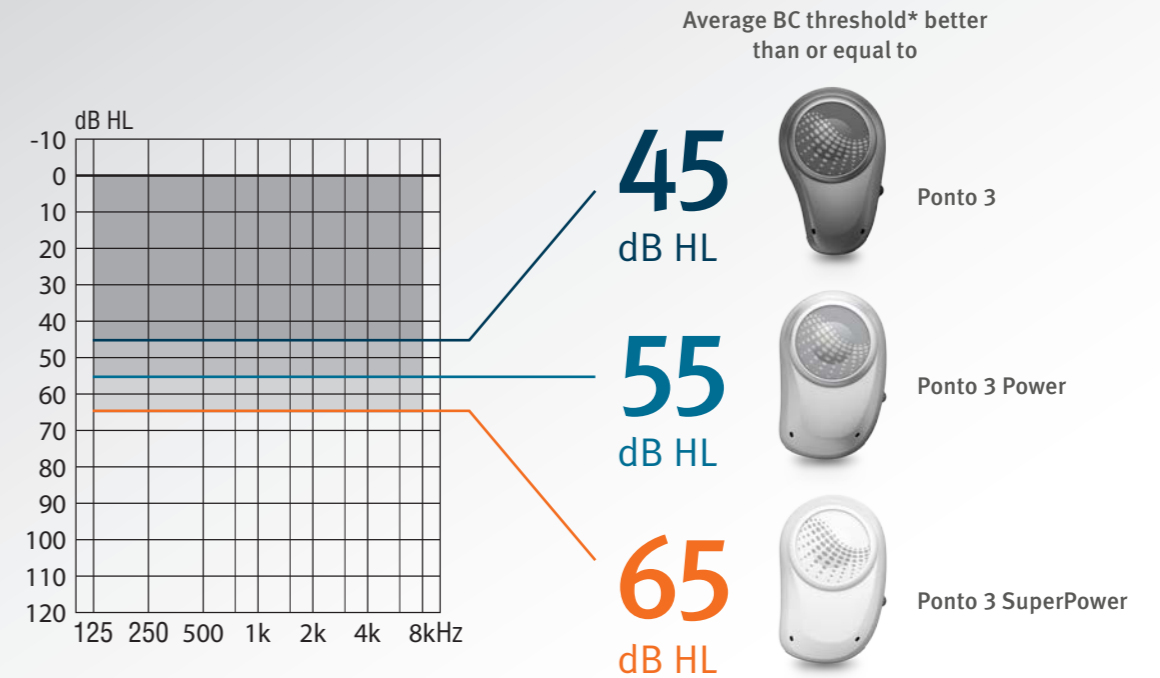
Bill Hodgetts
Associate Professor
University of Alberta



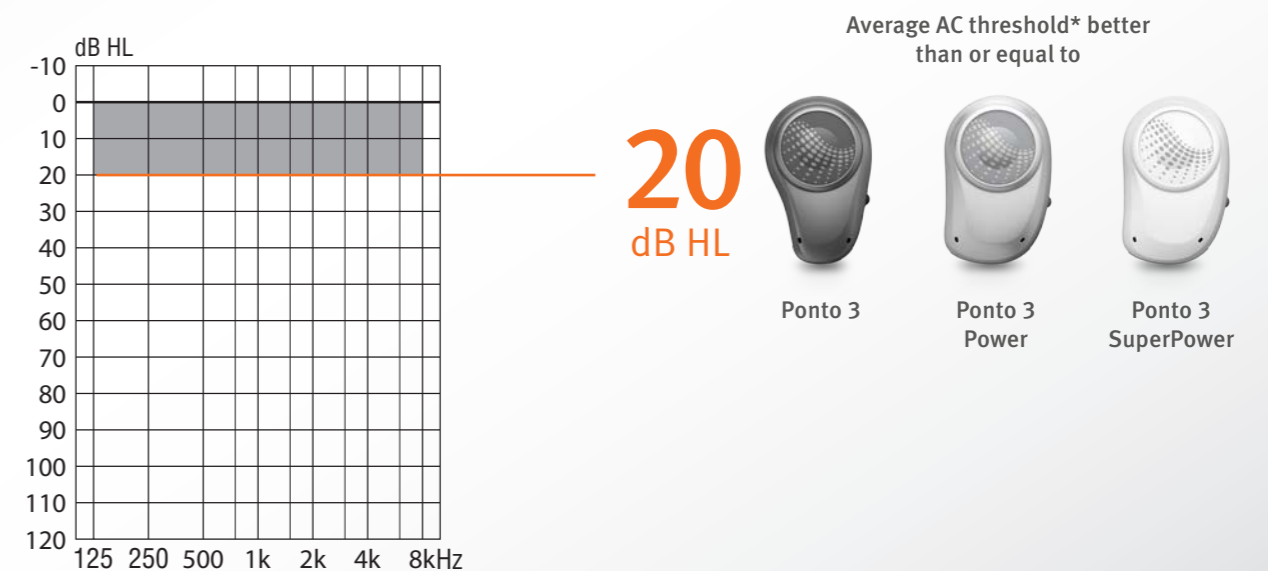
Susan Scollie
Associate Professor
University of Western Ontario



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 & Synchronisation	•	•	•
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	•	•	•

Colours



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; 1455- 1545
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.
5. FreeFocus feature test report (2016), Oticon Medical report no 34425-00
6. Wagener K, Josvassen JL, Ardenkjær R (2003) Desing, optimization and evaluation of a Danish sentence test in noise. *International Journal of Audiology*; 42: 10-17