

We stand on a solid platform



oticon
MEDICAL

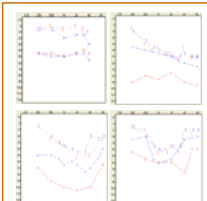
Review: Candidacy for the Ponto Bone Anchored Hearing System



oticon
MEDICAL

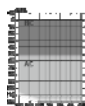
Candidates for the Ponto system

Conductive and mixed HL



- Chronically draining ear
- Congenital malformation
- ...

- If ABG >30 dB, speech recognition is likely to be better with a bone anchored sound processor than with a traditional hearing aid.^{1,2}
- Bone Conduction (BC) threshold up to av. 55 dB HL



¹ Myltenus et al. Intra-individual comparison of the bone-anchored hearing aid and air-conduction hearing aids. *Otolaryngology-Head & Neck Surgery* 1996; 124(3): 271-6.
² Wolff et al. Better performance with bone-anchored hearing aid than acoustic devices in patients with severe air-bone gap. *The Laryngoscope* 122 (S3-6):S26, 2010.

oticon
MEDICAL

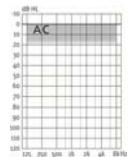
Candidates for the Ponto system

Single-sided deafness



- Sudden deafness
- Acoustic neuroma
- ...

- Average hearing threshold better than 20 dB HL



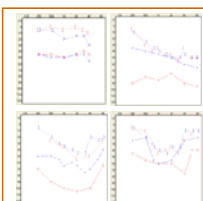
Av. AC < 20 dB HL

Av. AC < 20 dB HL

oticon
MEDICAL

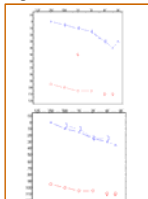
Candidates for the Ponto system

Conductive and mixed HL

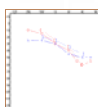


- 1) BC up to av. 55 dB HL
- 2) If ABG > 30 dB, speech recognition is likely to be better with a bone anchored sound processor compared to a HA

Single-sided deafness



Normal hearing in best ear
(av. AC ≤ 20 dB HL)



Other medical background:
-Skin allergies in ear canal

oticon
MEDICAL

Ponto Plus complete family of sound processors




Ponto Plus
Up to 45 dB HL

Ponto Plus Power
Up to 55 dB HL

oticon
MEDICAL


New transducer



oticon
MEDICAL

The ear is a cool instrument...

- Imagine using the same scales for an ant and an elephant

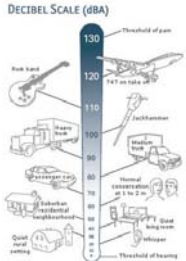


- Difference in weight is 1.000.000 times
 - Or equally, 120dB

oticon
MEDICAL

As you know, that's what the ear does...

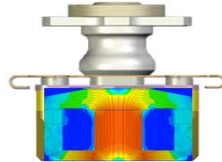
- The dynamic range of the (healthy) ear is 120-140dB!



oticon
MEDICAL

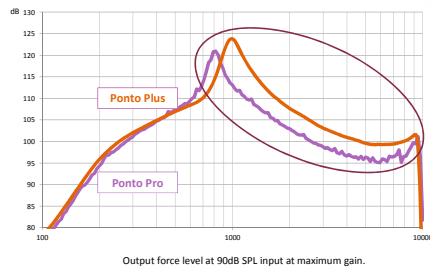
What we have done

- Maximizing the magnetic field in the vibrator
 - Same well-proven reliability
 - Same small size
 - Approx. 60% higher output for the same power consumption



The result

A more powerful sound processor

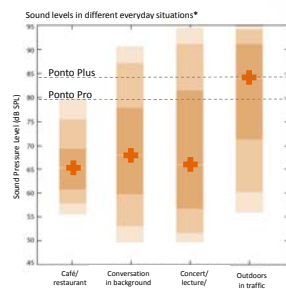


Ref: Oticon Medical tech sheet

oticon
MEDICAL

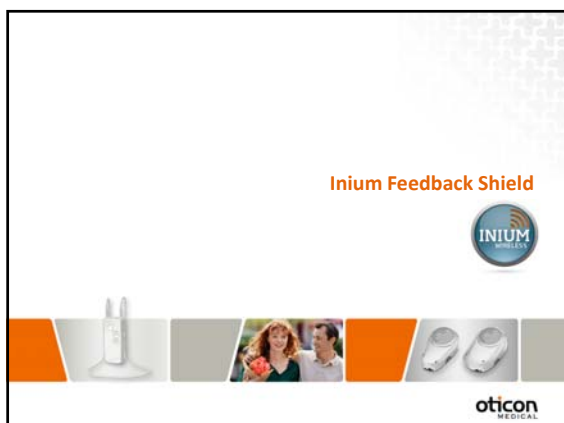
A new powerful transducer

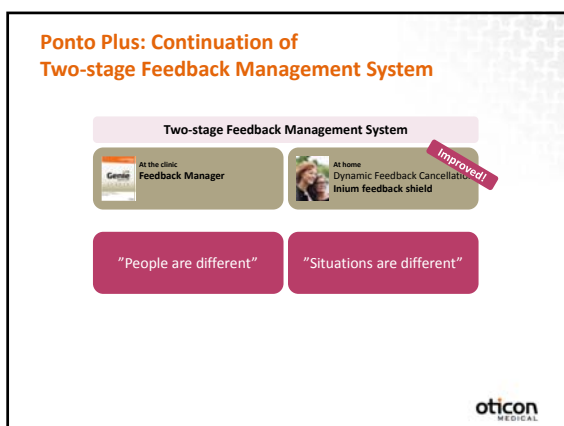
More of the everyday sounds

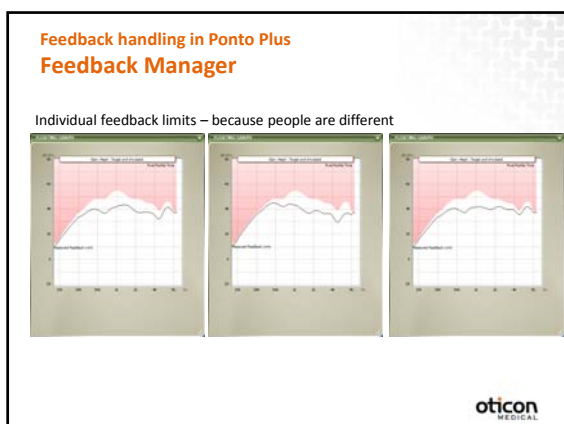


*Based on recordings of users' everyday situations and a typical Ponto user. The exact effect for a user will depend on the situation, hearing loss and choice of sound processor.

oticon
MEDICAL

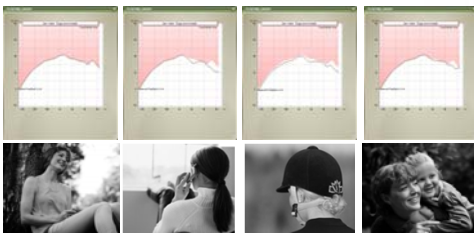






Feedback handling in Ponto Plus Dynamic Feedback Cancellation

Feedback path varies - because situations are different

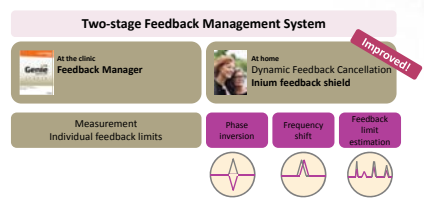


In quiet On the phone With helmet During a hug

oticon MEDICAL

The parts of Inium feedback shield

Two-stage Feedback Management System



At the clinic: Feedback Manager
At home: Dynamic Feedback Cancellation Inium feedback shield (Improved!)

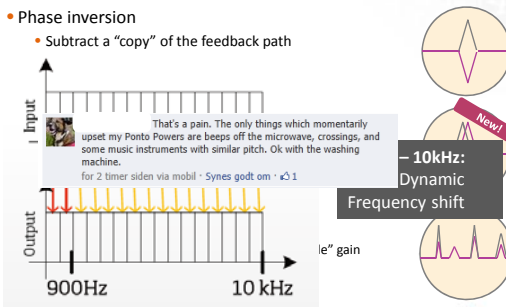
Measurement individual feedback limits Phase inversion Frequency shift Feedback limit estimation

The new feedback shield limits feedback through a variety of advanced signal processing strategies

oticon MEDICAL

Inium feedback shield Advanced signal processing components

- Phase inversion
 - Subtract a "copy" of the feedback path



Input Output

900Hz 10 kHz

le" gain

10kHz: Dynamic Frequency shift

New!

oticon MEDICAL

Different DFC settings

Frequency shift is not used for everyone

- **Off:** Inium feedback shield turned off
- **Medium:** Feedback shield without frequency shift
- **Max:** Feedback shield including frequency shift
- DFC prescription is based on prescribed gain and type of hearing loss

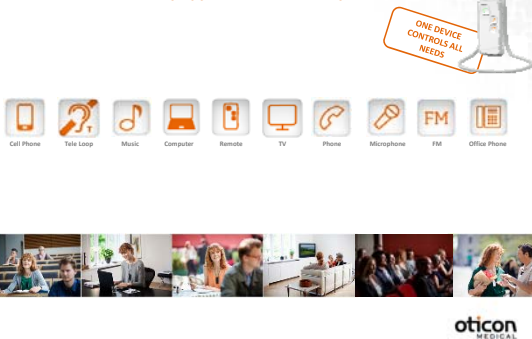


Wireless capabilities




The Ponto Streamer

The most connectivity opportunities in one system



The Ponto Streamer

Giving users more communication possibilities



The Ponto Streamer gives you all these communication possibilities / functionalities.

- T-coil built-in**
 - Cell Phone**: Communicate hands-free on the mobile
 - Tele Loop**: Listen to music directly in Ponto Plus
- Music**: Listen to music directly in Ponto Plus
- Computer**: Communicate and internet to stay informed and be entertained
- Remote**: An easy way to switch channels or adjust the volume on Ponto Plus



oticon MEDICAL


The Ponto Streamer

The most connectivity opportunities in one system



Using an additional device (ConnectLine, FM receiver ...)

- Cell Phone
- Tele Loop
- Music
- Computer
- Remote
- TV
- Phone
- Microphone
- FM
- Office Phone



oticon MEDICAL

ConnectLine and accessories

Extending the communication possibilities





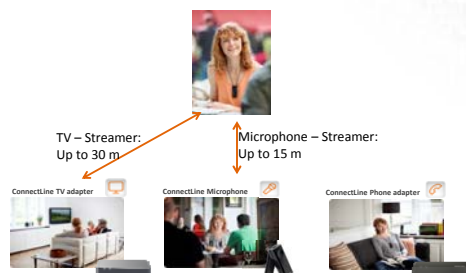


The ConnectLine products are the same as for Oticon Streamer and hearing aids.

oticon MEDICAL

ConnectLine and accessories

Extending the communication possibilities



The ConnectLine products are the same as for Oticon Streamer and hearing aids.

oticon
MEDICAL

Ponto Streamer/ConnectLine - Ease of use

- Pair the ConnectLine product with the Ponto Streamer (done once)
- After pairing, the Streamer and the ConnectLine product connect automatically
- Single push on Streamer button and the phone, TV, etc. is activated
- Input is automatically prioritized in order of importance (phone signal has highest priority)



oticon
MEDICAL

Accessories – FM

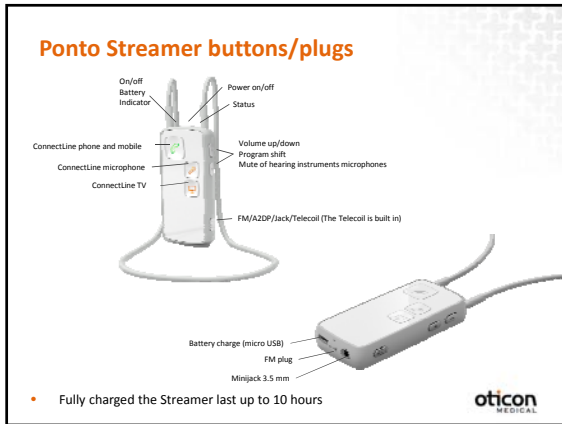


FM receivers that connect to a Euro pin socket.
e.g. Oticon Amigo R2



In case of a bilateral Ponto Plus fitting
– only one FM receiver is needed.

oticon
MEDICAL







Wearing the Ponto Streamer

- Does it have to be worn around the neck?

No, it can be put in your pocket.

To work in this way, the Streamer needs to be linked to the Ponto Plus sound processor(s).



oticon
MEDICAL

Ponto Streamer

Ponto Streamer status	sends signal	to be used
Open Streamer as it comes from factory	to any Ponto Plus within 1 m	- with neck loop
Linked Streamer (linking takes place in Genie Medical)	only to the linked Ponto Plus	- with or without neck-loop

oticon
MEDICAL

Ponto Plus Better hearing when you need it most

- More of the everyday sounds through new **powerful transducer**
- Less feedback & fewer artificial sounds with Inium **feedback shield**
- New **Wireless** communication possibilities via Ponto Streamer

✚ All the existing, well known features of the current Ponto sound processors

oticon
MEDICAL

At your hands

The infographic features a central circle labeled "Lifelong patient outcomes" with four arrows pointing to different product categories:

- OptiGrip™**: Design for improved patient stability
- OptiA™**: Skin-friendly abutment concept
- Ponto™**: Sound processors for superior sound quality
- Ponto™ Streamer**: For wireless communication

 Below the central circle, there are images of various Oticon products, including a Ponto Streamer, several Ponto sound processors in different colors, and OptiGrip and OptiA abutments. The Oticon Medical logo is at the bottom right.

Tissue Preservation Surgical Technique

The infographic shows a sequence of four images:

- A Ponto Streamer device.
- A person wearing a hearing aid.
- A person wearing a hearing aid.
- A Ponto sound processor.

 The Oticon Medical logo is at the bottom right.

OptiGrip™ Implant Geometry

Designed for **improved stability** - enabling longer abutments

OptiGrip™ geometry
 Designed for improved stability
 Largest initial bone contact surface in the industry

The diagram shows three implant types:

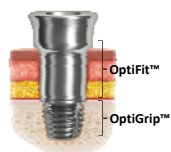
- OptiGrip™**: A wide, flared implant with a large initial bone contact surface.
- Wide (∅ 4.5mm) Ponto implant**: A standard Ponto implant.
- Ponto (∅ 3.75 mm) implant**: A narrower Ponto implant.

 A dotted line points from the text "Largest initial bone contact surface in the industry" to the OptiGrip implant.

OptiFit™ for Tissue Preservation

OptiFit™ design for minimal interference, aimed to prevent skin irritation and infections.

- Perfectly matched to the tissue
- Abutments for different skin thicknesses
- Implant stability enabling longer abutments



oticon
MEDICAL

Tissue Preservation Surgery

No tissue reduction - leaves a surgery area with full blood supply and minimal scar tissue

Two incision types:

- Incision aside the abutment
(Method published by Prof. Hultcrantz)
- Abutment in the incision line



oticon
MEDICAL

Tissue Preservation with the Ponto System

Benefits

- Better cosmetics
- Less numbness and pain
- Quicker healing
- Minimal scar tissue
- Quicker surgery
- Fully reversible



oticon
MEDICAL



Thank you!

- Q&A
- Another presentation in two weeks
- Check out www.oticonmedical.com

oticon
MEDICAL
