Oticon opens up a world of power

with life-changing technology

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The Oticon power legacy

Oticon has a long history of making high-quality power instruments.

1970's → **1980's** → **2001**

E22P

380P

DigiFocus II SP

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The next step in the Oticon legacy

Oticon has a long history of making high-quality power instruments.

2005	2010	2015	2019
Sumo DM	Chili/Safari SP	Dynamo/Sensei SP	Xceed/Xceed Play

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Introducing the world’s most powerful hearing aid

146 dB SPL MPO and 87 dB full-on gain

Oticon BrainHearing™ Technology
Powered by Velox™ S

Open up to Oticon Xceed

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It’s much more than the world’s most powerful hearing aid

It’s about life-changing technology ... for every person

Think about 1 or 2 of your patients – with Severe-profound hearing loss

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What are the biggest challenges for people using super or ultra power hearing aids?

Communication

Hearing aids

Audibility

Small dynamic range

Recruitment

Temporal resolution

Distortion

Dead regions

Feedback

Frequency resolution

Speech understanding

Noise

Focus

Distance

Social participation

Own voice

Interaction

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What are the biggest challenges for people with super or ultra power hearing aids?

Effort

Dependency

Every dB counts

Communication
Hearing aids
Audibility
Small dynamic range
Recruitment
Temporal resolution
Distortion
Dead regions
Feedback
Frequency resolution
Speech understanding
Noise
Focus
Distance
Social participation
Own voice
Interaction

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Video of Hans and Kissy

The world’s most powerful hearing aid

Powered by Velox S™, Oticon’s most advanced and powerful platform ever

360° access to speech all day

2.4 GHz Bluetooth® low energy technology for wireless connectivity

Maximum **audibility** with **more fitting freedom**

Oticon BrainHearing™ Technology

Powered by Velox S™

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More power

More access to speech

“With Oticon Xceed **I can go to dinner parties and follow conversations** without the speech drowning in background noise.”

Michael, Oticon Xceed user

“With Oticon Xceed **the sound is so clear and detailed** that I no longer have to rely fully on lip reading.”

Steen, Oticon Xceed user

These testimonials represent the opinion of the concerned individuals only and may not be representative of the experience of others. The concerned individuals have not been paid for their participation, but were offered to keep the hearing aids free of charge after the trial period. The testimonials may not be indicative of the future performance or success of any other individuals.

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Documented benefits from two features

OpenSound Navigator™

OpenSound Optimizer™

Introducing the open sound experience for power users

OpenSound Navigator + **OpenSound Optimizer** = **Open sound experience** for power users

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Traditional “Old World” technology

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Listening in noisy environments

The most difficult listening situation for hearing impaired people

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Keeping all speech sounds clear and precisely attenuate noise

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Balancing the sound environment

Making it easier for the brain

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OpenSound Navigator

Fast and seamless

Analyse

Balance

Noise removal

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OSN video

OpenSound Booster

A boost to OpenSound Navigator

Need for support depends on listening situation

Triggers extra on-demand support when needed the most

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Question for you!

1. How does the OpenSound Booster work – what do you tell your patient about it?

OpenSound Booster

An example

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Introducing the open sound experience for power users

OpenSound Navigator + **OpenSound Optimizer** = **Open sound experience** for power users

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OpenSound Optimizer

Delivers gain and prevents feedback from happening

Traditional hearing aids – examples

* Ng & Rumley 2019. Oticon Whitepaper
** Callaway 2019, Oticon Whitepaper

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OpenSound Optimizer

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OpenSound Optimizer

Delivers gain and prevents feedback from happening

Oticon Xceed – examples

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The proactive system provides optimal and stable gain

Fitting without feedback risk

OLD WORLD

The proactive system provides optimal and stable gain

Fitting without feedback risk

NEW WORLD

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Up to 20% more speech cues

Due to OpenSound Optimizer™

- Achieve optimal fitting
- Extra gain avail between 1-6 kHz
- “Eases’ earmold concerns, for more comfort

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OpenSound Optimizer™
Two systems in one

OpenSound Optimizer in the processing scheme

OpenSound Optimizer™

Velox S™

Fast

Precisely

Minimally

OpenSound Optimizer in Genie 2

Unstable gain indicator

New symbol in status bar

- Only appears when +6dB loop gain is exceeded
- Indicates area of increased FB risk
- Suggestions given for precautions to take

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Facts about Unstable gain indicator

- Target match takes priority – no predicted limits placed on prescribed or adjusted gain
- Indicator is based on real-time data from HA being in ear canal. Loop gain is measured
- Hearing aids must be connected and unmuted
- Unstable gain Indicator samples gain once per second
- Prescribed vent and rationale targets have not changed

What is gone

- **The predicted feedback limits**
  - Can be reactivated in Preferences if desired.
  - Reason: OSO enables less feedback management from the HCP, since it proactively eliminates feedback (Feedback shield LX is not fast enough)
- **Recommendation to always run feedback analyser**
  - No longer necessary for >80% of fittings
  - Indicator and pop-up alert the HCP to run, if necessary

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Evidence

For the first time ever…

Proven to provide BrainHearing benefits for power users

Higher speech clarity with less effort

Up to 10%
improvement in speech clarity

Up to 10%
less listening effort

Up to 15%
better short term recall

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Clinical evidence

Örebro University Hospital, Sweden

Örebro University Hospital

Behind the scenes of the BrainHearing research

Connectivity

Connect to everyday devices

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Connect to any modern smartphone

ConnectClip
– remote microphone

Works with
any modern smartphone

Download on the App Store

GET IT ON Google Play

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Re-designed Oticon ON App

Designed for ease of use

Fitting

Dynamic Speech Enhancement for maximum audibility

Default fitting rationale for power users

Takes the special need of power users into account

Prescribes more linear gain

A good starting point with possibility for fine-tuning

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Why is it important to have a dedicated super power rationale?

Loudness perception

Need for audibility takes priority

The importance of temporal cues

The power user getting new hearing aids

It’s a process!

Strong and specific preferences

Vulnerable in the transition to a new technology

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What challenges you the most for the FITTING?

“

Some can be very under or over fit but if that is how they like it there is nothing you can do. **If you don’t give it to them, they will just go somewhere else”**

“

I am much more inclined to trust these patients **as they got a history and know what they want to hear”**

“

Often we are not able to give them that soft sound, however in the event we are, sometimes they don’t want that. Their brains are not used to having it. **Then I revert back to the linear configuration”**

“

If they say No, it’s No, **and I don’t really push it”**

Transitioning guide

Help to fit analogue users with Oticon Xceed

Analog BTE to Oticon Xceed
- transition guide

How to mimic an analog instrument in a follow-up fitting case

Even though digital technology in power instruments has been on the market for the last 20 years, there are still users who have continued to wear their analog power instruments. This instruction is intended to ease the transition from an old analog hearing instrument (e. g. Oticon 380 P) by proposing an initial setting for a new Oticon Xceed instrument. This setting shall serve as a starting point for the new fitting to provide as similar as possible a sound experience with the new digital hearing instrument. It is not to be seen as the final setting or the best audiological solution for an end-user.

Step 1: Gain and Output settings

a) In case a functional old instrument is available:

- Put the analog instrument in a test box and measure the gain and output characteristics. Use speech test signal or a sine wave with a level of 65 dB for the gain and 90 dB for the maximum output.
- Adjust the gain of the Xceed instrument to match the measured gain curve of the analog instrument. In case you use a sine wave consider turning off the Feedback Shield. Make sure that the Xceed instrument amplifies linearly by choosing the same gain for all input levels.
- Adjust the MPO of the Xceed instrument to match the measured output characteristics of the analog instrument.

Note: It is of course also possible to perform these measurements and adjustments by running REM.

b) In case no functional old instrument is available:

- Select DSE "linear" as fitting rationale in the "General" program to provide a compression free first fit and pick the most appropriate Adaptation Manager step.

Note: A linear amplification scheme eliminates the SpeechGuard effect.

Step 2: Feature setting

To mimic the sound experience of an old analog hearing instrument best you need to set the feature functionality as follows:

FITTING
- Controls
- OpenSound Navigator
- Program Manager
- Feedback Analyser
- Acoustics

MORE TOOLS
- Automatic Adaptation Manager
- Automatics
- Bimodal Fitting
- Tinnitus
- Speech Rescue

In "OpenSound Navigator" tool:

- Noise reduction: off
- Directionality settings: Pinna omni
  - Note: This setting eliminates the OSN effect.

In "Automatics" tool:

- Transient Noise Management: off
- Spatial Noise Management: off
- Binaural Broadband: off
  - Note: You may consider leaving Binaural Broadband on to align control commands.
- Feedback Shield: off
  - Note: Please consider using the Feedback Shield to avoid acoustical feedback.

In "Speech Rescue" tool:

- Check that Speech Rescue is turned off

Note: we do not recommend turning off these features permanently since they are designed to improve speech intelligibility and/or listening comfort; but since these features are not available in an old analog hearing instrument you may want to start without them and activate them over time or in a separate listening program.

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Bimodal fitting

All Oticon power hearing aids can be fitted with any CI

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Bimodal fitting panel in Genie

Overview

- Overall gain – for loudness balance
- High frequency cut-off – for sound quality
- Low frequency emphasis <1KHz
- Bimodal flowchart

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Look inside Xceed

Performance Lineup

	OTICON Xceed
Opn S 1	SP/UP 1
Opn S 2	
Opn S 3	SP/UP 2
Siya 1	
Siya 2	SP/UP 3*

***Xceed 3 does not include OSN; includes Speech Rescue**

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Feature overview: Oticon Xceed

		Oticon Xceed 1	Oticon Xceed 2	Oticon Xceed 3
Speech Understanding	OpenSound Navigator™	Level 1	Level 2	-
	- Balancing power effect	100%	50%	-
	- Max. noise removal	9 dB	5 dB	-
	OpenSound Optimizer™	•	•	•
	Noise reduction LX	-	-	•
	Multiband Adaptive Directionality LX	-	-	•
	OpenSound Booster™	•	•	-
	Speech Guard™ LX	Level 1	Level 3	-
	Single compression LX	-	-	•
	Speech Rescue™ LX	•	•	•
Sound Quality	Clear Dynamics	•	-	-
	Spatial Noise Management	•	-	-
	Processing Channels	48	48	48
	Bass Boost (streaming)	•	•	•
Listening Comfort	Transient Noise Management	4 configurations	3 configurations	-
	Feedback shield LX	•	•	•
	Wind Noise Management	•	•	•
	Tinnitus SoundSupport™	•	•	•
Personalisation & Optimising Fitting	YouMatic™ LX	3 configurations	2 configurations	-
	Fitting Bands	14	12	8
	Multiple directionality options	•	•	•
	Adaptation Management	•	•	•
	Oticon Firmware Updater	•	•	•
	Volume Control step size	•	•	•
	Fitting Formulas	DSE, DSE linear, VAC+, DSL v5.0, NAL-NL1+2	DSE, DSE linear, VAC+, DSL v5.0, NAL-NL1+2	DSE, DSE linear, DSL v5.0, NAL-NL1+2

Same feature settings as Opn S1

Same feature settings as Opn S3 except for OSN (level 2) & TNM

Open up to Oticon Xceed

Oticon Xceed BTE Super Power

Double push button
Volume, mute

LED

T-coil

Single push button
Program, flight mode

Tamper resistant battery drawer*

Undamped hook

IP 68

Battery 13

*Optional

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Oticon Xceed BTE Ultra Power

*Optional

Xceed UP: Industry leading output and gain

146 dB SPL MPO and 87 dB full-on gain

Standard tube, undamped hook

Standard tube, damped hook

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BTE SP and BTE UP fitting ranges

For severe and profound hearing losses

110

120

Hook undamped

MPO/peak gain = 143/83 BW = 6500 Hz

MPO/peak gain = 146/87 BW - 5700

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A wide range to choose from

Find the user’s favourite look

C090
Chroma Beige

C063
Diamond Black

C094
Terracotta

C092
Steel Grey

C093
Chestnut Brown

C091
Silver Grey

C044
Silver

Features

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Frequency lowering

A solution for high frequency audibility

J. Alexander

Speech Rescue LX benefits

Why should this feature be used?

- Audibility to hear more speech details
- Copy and keep method – nothing is removed
- No interference with frequencies below 1600 Hz
- Utilises the natural occurring available spaces in speech
- Delivers on our BrainHearing™ philosophy

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The complete tinnitus solution

What makes the Oticon solution unique

Oticon Xceed combination device with **Tinnitus SoundSupport and OpenSound Navigator**

Intuitive and easy fitting tool in **Genie 2**

Counselling and support tools for both clinician and patient

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This is Oticon power

The world’s most powerful hearing aid

Oticon BrainHearing™ Technology

Powered by Velox™ S

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A powerful portfolio!

Oticon Opn S™ and Oticon Xceed

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Take home messages

Oticon opens up a world of power

- People with severe/profound hearing face complex challenges every day
- Oticon Xceed is the world's most powerful hearing aid
- OpenSound Navigator and OpenSound Optimizer give 360° consistent access to speech

Oticon BrainHearing™ Technology
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- Oticon Xceed is the world's most powerful hearing aid
- OpenSound Navigator and OpenSound Optimizer give 360° consistent access to speech
- Oticon Xceed is proven to provide **10%** higher speech clarity with less effort
- 2.4 GHz Bluetooth® low energy technology for wireless connectivity
- Oticon Xceed completes our full power portfolio

Questions?

Thank you, Power Rangers!