



# The Opn Evolution

The remarkable journey of the development of Oticon Opn™, and the groundbreaking results that prove life-changing benefits

# Developing Opn's breakthrough technology

Innovation – from insight to satisfaction



## Insights and Strategy



Eriksholm, our world-renowned psychoacoustic research center, uncovered new insights into patients' needs, leading to a deeper understanding of the connection between hearing and cognition. This is the foundation of the Oticon BrainHearing approach.

## Technology Innovation



Oticon's world-class engineering and manufacturing brought the BrainHearing approach to life in a groundbreaking solution: Oticon Opn. New core technologies, powered by a sophisticated signal processing platform are at the heart of the open sound experience.

## Verification Research



Verification research using cognitive-based methods and rigorous design bring Opn benefits to light, proving that it performs as intended, and is truly a paradigm shift.

## Satisfaction Studies



User satisfaction studies validate that the patients needs are met. Opn delivers superior patient satisfaction and outperforms competing approaches. These are important reasons why Opn is recommended by hearing care professionals.

## Hearing Care **is** Health Care™

By elevating the importance of hearing loss to a health care issue, Oticon provides you with the most relevant products that support cognition and improve quality of life. Ongoing research helps to ensure we're delivering on that promise by providing insights into patients' needs and guiding the innovation of our core technologies.

### **We're dedicated to helping you succeed**

We share the same goal: improving the lives of people faced with hearing loss. Hearing care is an important health care issue, and you play a critical role in delivering an effective, customized hearing solution for each patient. Oticon provides a powerful combination of quality products that deliver unparalleled user satisfaction and business solutions tailored to support your most important success drivers.



# BrainHearing: the fundamental principle on which we base our technology

## Hearing starts with the brain

BrainHearing™ describes the approach that Oticon takes when creating solutions for people with hearing loss. BrainHearing is based on the fundamental observation that speech understanding is a cognitive process. It is the brain's nature to be open and to organize all sounds, but traditional directionality closes down surrounding sounds. This stresses the brain, as such a narrowed and artificial sound environment does not provide the stimuli it needs.

## Oticon Opn provides the brain with better conditions to perform

The always-open approach to the listening environment gives Opn gives users access to a 360° soundscape and the freedom to choose what to listen to and to switch attention, as needed.

Research shows that this unique BrainHearing approach supports the brain in five different ways, to better preserve cognitive function by delivering better hearing with less effort.

Oticon Opn supports the brain in five key areas:

Open access to all speakers

Rapid noise reduction

Localization of sounds

Speech clarity

A personalized listening experience

# The open sound experience

Oticon Opn was developed on an open sound paradigm, a unique signal processing approach opens up to the soundscape to embrace multiple speakers. The OpenSound Navigator™ is the most powerful processing technology in Opn. It works so fast and precisely that it can attenuate unwanted noise even between words in an open soundscape.



## OpenSound Navigator™

the split-second key to an open sound experience in three steps

### 1: Analyze

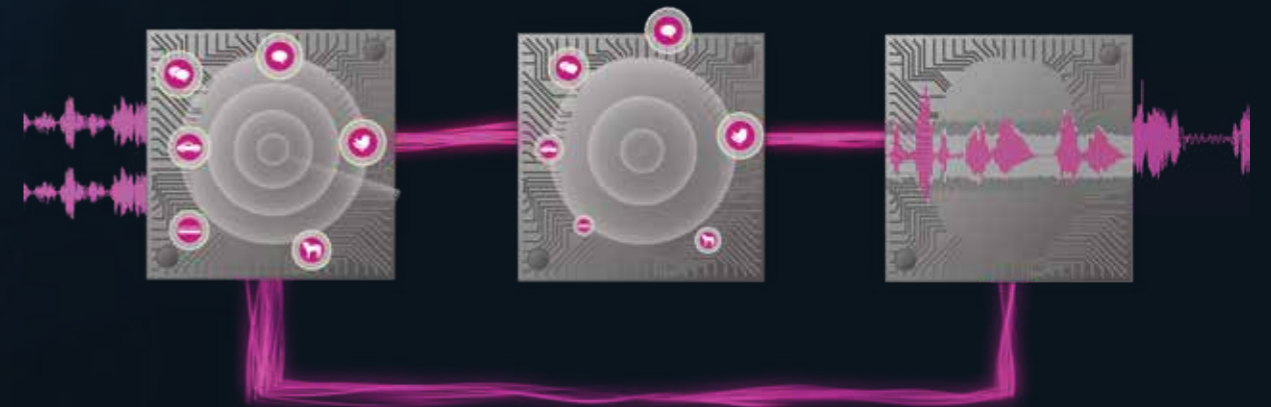
Scans the full 360° sound environment more than 100 times per second to identify noise and separate it from speech.

### 2: Balance

Rapidly reduces the levels of loud noise coming from specific directions, while preserving speech.

### 3: Noise removal

Rapidly attenuates remaining diffuse noise, even between individual words.



The OpenSound Navigator works at ultra-fast speed, continuously rebalancing the soundscape while still providing constant access to all relevant sounds and speech. By helping the brain to naturally focus on what it wants to, Oticon Opn gives users the opportunity to reclaim situations once lost and enrich their lives.



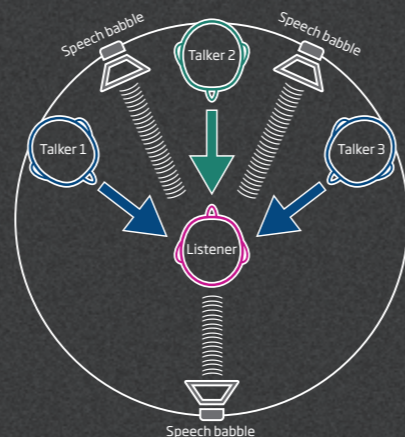
# Putting hearing technology to the test in a real-life setting with multiple speakers



We defied conventional thinking about directionality and noise reduction to create an innovative approach for handling multiple speakers in a noisy environment.

## Breakthrough technology calls for breakthrough study design

Usually, speech understanding is tested with a single speaker placed right in front of the listener. However, this artificial test situation doesn't accurately represent real-life conversations. To put Opn to the test, researchers created a scenario that mimics a real-life conversation among four friends in a noisy restaurant, comparing it against two top-of-the-line hearing aids incorporating traditional and narrow directionality.

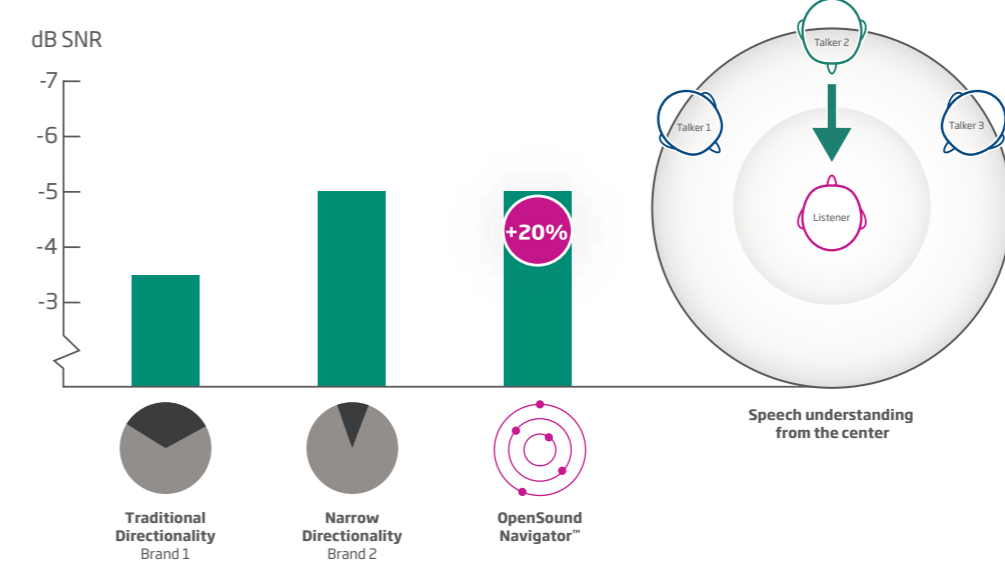


# Opn outperforms traditional and narrow directionality

Opn provides best access to all speakers

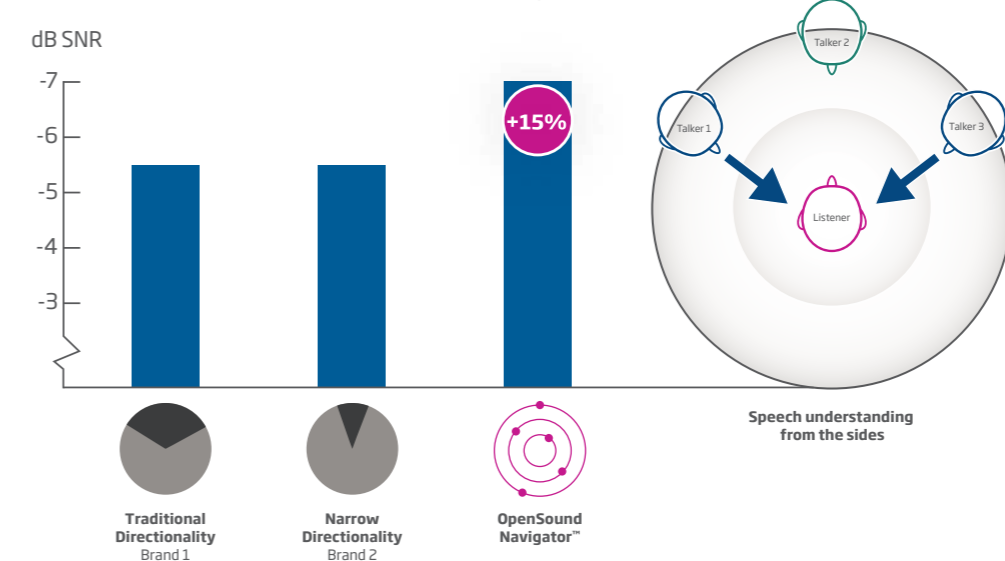
Opn outperformed traditional and narrow directionality, delivering best-in-class speech understanding from the center without closing down surrounding sounds. On the more difficult test, speech understanding from the slides, Opn outperformed competing technologies by a significant 15%.

## Best-in-class speech understanding from the center



**20% improvement** in speech understanding from the center when OpenSound Navigator was compared to the technology of Brand 1

## Best-in-class speech understanding from the sides



**15% improvement** in speech understanding from the sides when OpenSound Navigator was compared to the technology of Brand 1 and Brand 2

Bar heights correspond to SNR of 50% intelligibility - see Beck DL, LeGoff N. Speech-in-noise test results for Oticon Opn, Hearing Review. 2017;24(9):26-30.



Validation: Superior Patient Satisfaction

# Opn consistently delivers satisfaction to the people who matter most

Since the introduction of Opn, the feedback from hearing aid users and hearing care professionals has been outstanding. That's because both research and experience show that Opn delivers the intended benefit, as designed.

Opn helps users open up to the world like never before.

“  
**All of a sudden, I was an active participant in my own life.**

I had missed so many things that I didn't even realize.”



Shannon Conn

**96%**  
of users say they hear better with Oticon Opn



Bryan Caswell

**81%**  
say they not only understand more, they use less effort to do so

“  
As soon as I put the Opns in my ear, everything changed.  
**It was like a new world for me.**”

Validation: Superior Market Performance

# Oticon earns top ratings from hearing care professionals

In a recent Hearing Tracker/UBS Survey\* Oticon was ranked number-one in three of the top four attributes that professionals consider when choosing hearing aids for their patients.

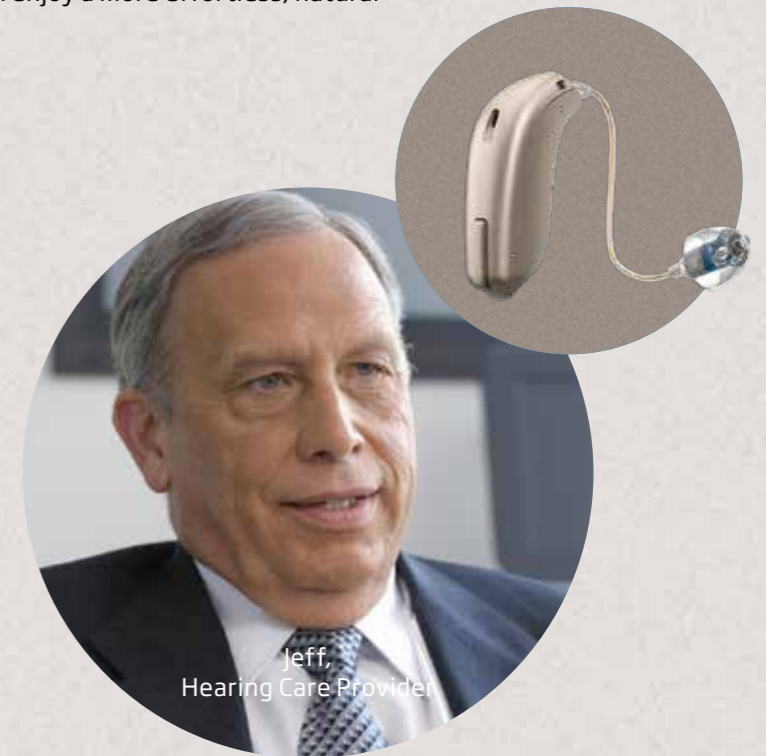


Oticon also earned top ratings for patient satisfaction – a category that's critical to success for patients and practices, outdistancing the next two hearing aid brands by nearly 10%.

These results demonstrate the ways in which Oticon hearing solutions with BrainHearing™ technology take the work out of hearing, so users can enjoy a more effortless, natural hearing experience.

\* Download the survey: <https://www.hearingtracker.com/audiologist-survey>

“  
Every patient that has come back to me in the first follow-up visit has said,  
**'I'm astounded at how well these perform.'**”



Jeff,  
Hearing Care Provider



# One family that continues to expand

Oticon Opn is available in 3 styles and three performance levels. The miniRITE is available with a rechargeable option, and the miniRITE-T and BTE13 Plus Power feature telecoil functionality.

All Opn models are equipped groundbreaking technology and a full set of features, including wireless connectivity to all modern smartphones.



ConnectClip

ZPower Rechargeable

miniRITE

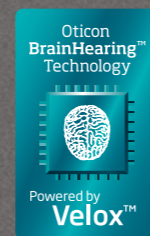
miniRITE-T (Telecoil)

BTE13 PP (Plus Power)



## All models feature

- Velox™ - the technology platform fast enough to support the brain
- OpenSound Navigator™ - delivering the open sound experience
- TwinLink™ - the world's first dual radio communication system
- Wireless 2.4 GHz connectivity - seamless connection to all devices
- Internet connected hearing aid - enabling endless connectivity possibilities through IFTTT
- Intuitive control of the hearing aids with the Oticon ON App



## ConnectClip is now available:

- Make and receive hands-free calls from any smartphone
- Stream music and video in stereo
- Videochat over tablet or computer
- Extend listening distance with the integrated remote microphone
- Make discreet volume or program





## Award-winning performance

Opn has captured an impressive lineup of prestigious U.S. and international awards for groundbreaking innovation, outstanding product quality and human-centered design.



reddot award 2017 winner

