

Oticon ♦ Syncro

“Experiencing is believing”



*Your guide to  
experiencing the  
world of Syncro  
hearing aids*

Consumer Edition

**oticon**  
PEOPLE FIRST



# Oticon ♦ Syncro

*The hearing aid with Artificial Intelligence™*



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“Syncro is the closest thing in my memory to what real hearing is really like. In comparison, everything else sounds like a tin can.”

- George Pankey, hearing aid wearer since 1952

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## Oticon Syncro - Experiencing is believing

Oticon celebrated over 100 years of hearing care with the introduction of Oticon Syncro. Syncro has pushed the limits of hearing technology and established a new category of digital hearing instruments – those with Artificial Intelligence.



Since 1904, Oticon has focused its efforts on providing the very best solutions to hearing loss. We believe that the introduction of Oticon Syncro marks a major milestone in our quest for the ultimate in hearing instrument performance.

The Syncro launch has been our most successful product launch ever. Since its introduction, we have been receiving extraordinary feedback from hearing care professionals and end users alike.

So what's so special about Syncro?

Syncro offers the best hearing care available. It combines the amazing computational power of state of the art micro chip technology with the knowledge accumulated from decades of leadership in fundamental hearing research.

With Syncro, Oticon has taken three core signal processing technologies to a new level and then introduced an artificial intelligence-based decision process to ensure

that they are able to adapt instantly to changing sound environments. The result is a hearing aid that not only knows what sort of a sound environment it is in, it knows exactly what to do to help you hear better in that specific environment.

First, Syncro has the most advanced directional microphone system available today. This system can cancel out multiple noise sources simultaneously, enabling Syncro to focus on speech signals in noisy listening situations.

Second, Syncro has a very intelligent noise management

system. It can tell if someone is speaking to you in a quiet environment, if there is noise present or if there is a combination of the two. In this manner, it can reduce noise, but not to a point where it will also turn down the volume on something you wish to hear. No other noise management system can do this.

Third, Syncro's compression system will automatically adjust the amount of amplification it gives to sounds, depending upon how loud they are. It gives more amplification to soft sounds and less to loud sounds. This will help you hear better at a distance, but will ensure that loud sounds are never too loud.

Syncro's Artificial Intelligence system makes the decision on how to combine these different systems so that they can function optimally in any sound environment. Syncro does not simply categorize sound environments and then predict what might be a good thing to do in a particular environment. Syncro simultaneously processes several different combinations of these features and then chooses the combination that allows



*Artificial Intelligence (A.I.) is the science of using computers to make intelligent decisions. A.I. is employed in Syncro to improve performance in unpredictable sound environments. It allows Syncro to make qualified decisions among multiple outcome possibilities, in order to continuously optimize the listening experience.*



you to hear speech optimally. This is Artificial Intelligence at work, and it is an essential Syncro difference. The result is a more natural sound and a much better performance in noisy and difficult listening situations than can be achieved by standard digital hearing technology.

Your experience,  
Other's experiences.

It can be very difficult to make a decision about the relative merits of high performance digital hearing technologies. In the end, decisions about what technology to buy usually gets down to experience. Your experience. We have conducted studies that show that Syncro is preferred by 87% of experienced hearing aid users and are confi-



dent that if you try Syncro, your experience will be a positive one. Which is why with Syncro we say "experiencing is believing."

Several thousand Hearing Care Professionals across the USA are fitting Syncro to their patients. Here's what a few of them had to say about it:

"Patients are reporting a more natural sound quality, and they are hearing better in noise than ever before. Patient satisfaction has increased substantially, and our return rate has decreased." Gyl Kasewurm, MI.

"In the past 20 years that I've been fitting hearing aids, I've never had patients consistently have positive reactions to a product until Syncro." Daena Wilds, KY.

"When driving in my car and listening to the radio, I switched between my Adaptos (older digital technology) and Syncros. I think that the radio was equal, but the car and the road noise was so much better with Syncro." Ken Wood,

CA (Hearing Care Professional and hearing aid wearer).

What is equally impressive are the reactions of experienced hearing aid wearers. Some testimonials from these people have been included in these pages. Others have been included on a unique "Experiencing, is believing" video, which is available from your Hearing Care Professional.

We hope to include you among a growing group of Americans who have chosen to buy the best hearing care that today's technology can provide. Syncro is for those who understand that the gift of hearing is a precious one and that the decision to hear well again is one of the best choices you can make for both yourself and the ones you love.

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- a century of hearing care

### A century of hearing care

*For over 100 years, we have committed our efforts, products and services to improving the lives of people with hearing loss.*

*It all started in 1904, when one man's dream to help his hearing-impaired wife led to the foundation of a company focused on providing some of the best hearing care solutions in the world.*



Peer Lauritsen,  
President,  
Oticon Inc.



## Syncro has made a significant difference in many people's lives. Here's what some of them have to say about it.

**W**e have heard from many Syncro users across the country, both new and experienced, about how Syncro has made a significant difference in their life. We'd like to share some of their stories with you.



**George Pankey:**

"Without my hearing aids, there's no hearing. I mean it's that simple. So it's much different for me than it is for some people with a hearing loss. They may have a small hearing loss or they may have a medium hearing loss, and they will fight the situation and try to keep away from having a hearing aid. It's like a person who has all of his teeth taken out and doesn't want to wear dentures. It doesn't make any sense, but they do it. And, to be without a hearing aid when you're in that sort of situation is just – I couldn't imagine it for myself. It would be impossible. I couldn't navigate through society without a hearing aid."

"I can't pinpoint one advantage of Syncro because there are many advantages. One is the clarity of the unit and the other is the ability to search out where that voice is coming from. If you have five people in the room – I can tell you who is speaking, whereas before I

couldn't. I knew someone was speaking, and I would have to look around to find out whose lips were moving."

"Yeah, I can only summarize the advantages of a Syncro in my experience, and that is the social setting and being able to hear better. Also, in the business situations –being able to hear better. Also in restaurants now, where I don't have to lean across the table and keep saying 'huh, what?' It's really been an excellent experience for me. A very relaxing one. One that I would recommend to anybody."

"I've worn hearing aids since 1952 - Syncro is the closest thing in my memory to what real hearing is really like. In comparison, everything else sounds like a tin can."



**Nicole Folk:**

"Since I got these new Syncro hearing aids, it's been a great experience for me. I can hear the kids talking to me on the bus. Also, I can understand my bus driver a little better."

"I think I'm more friendly because, I can hear other people better, and I'm not asking, 'what, what did you say or huh?' "

The Syncros have helped me in school. I can hear my teachers a whole lot more, and I can understand what I'm doing. If the teacher asked a question, I would be able to answer it because I would know what she was asking me."

"My new hearing aids are really comfortable. I put them on, and sometimes I forget they are there. I can sit and read and never think about them."

"Ever since I got these new hearing aids, I've been able to hear my own voice. With my other hearing aids, my voice sounded like a tinny voice, and it didn't seem comfortable to me. So when I got these, I came out and I started talking to myself a lot for two days straight, cause I liked to hear my new voice. It was a great experience, and I loved it."

"If I could talk with other kids who have hearing loss, I would say, 'Don't worry about hearing aids. They will help you hear better, and you'll feel more confident and be able to have conversations.' "

Visit our web page  
and see live testimonials at  
[www.syncro-pro.oticonus.com](http://www.syncro-pro.oticonus.com)



**Karen Sweeley:**

“Now I can hear people who are speaking behind me.

Before, if I didn't see them, I didn't hear them. Right after I got my new Syncros, I went to the airport to pick up my cousin. I missed her, and I was standing at the gate. Her husband came up behind, and I was so surprised that I heard him!”

“I never dreamed how much different it would be with these hearing aids. It's just the small things in life that have just really made getting hearing aids worth it. I think that's made me the happiest – hearing the small things.”

“I spend a lot of time with my grandchildren – they have little voices and it's very hard to hear them. Before I got my hearing aids, I use to think they weren't enunciating correctly. And, after I got them, it's just amazing. When we play together, when we watch TV or videos, I'm able to hear them. I'm able to be in on a conversation other than if I was looking directly at them.”



**Bud Adams:**

“Everything just seems to sound more natural to me now. My old

hearing aids used to distort my voice - the hearing was rather blurred. I found that really draining emotionally. With the Syncro hearing aids, the hearing now is rather crisp and distinct, and I find it much

more pleasant. I also hear my own voice when I speak, and it sounds better to me. It gives me that deep resonant sound that we all like to have.”

“I enjoy going to movies but haven't gone for years because of my difficulty hearing. Now I can enjoy going to movies about once a week – it's opened a whole new world for me.”

“I wear my hearing aids all the time and only take them out at night. I don't notice them during the day at all.”

“I've recommended these hearing aids to countless friends. People have a problem with hearing aids to start with – a lot more macho guys seem to think there's something wrong with wearing a hearing aid, even though they don't seem to realize that most of us sooner or later have some hearing impairment.”

“Syncro has improved the quality of my life in such unimaginable ways that you have to experience it yourself to appreciate it. I was afraid that my hearing had deteriorated to the point that nothing was going to help me any more – and this comes along and now I'm back to where I can really enjoy the things that I use to – travel, talking, going to visit with people, parties and things like that. So, it's just made me a lot less irritable. When you can't hear well, you get very grouchy and grumpy. That's where they get the term I think grumpy old men. And, maybe I'm not quite as grumpy as I was – I hope not.”

“I know I can't have perfec-

tion, but this is the closest I think I can have, as far as hearing goes. I think they're super!”



**Rose Willits:**

“When I went to pick up my new hearing aids, I was wearing my old hear-

ing aids thinking that I was hearing pretty well. I immediately noticed the change when I put the Syncro hearing aids on. As soon as I walked out of the office with my new hearing aids, I said, Wow! This is something good.”

“One of the greatest pleasures I have is going to church on Sunday morning. We have a rather large church and the acoustics are not really what they should be, and so I was always straining to hear what they said. People would laugh and I'd nudge my husband and say, 'what'd they say?' but now I can hear every word.”

“Since I've had Syncros, I think my life has been enhanced because my husband isn't so irritated with me at the end of the day, and I don't have to ask him to turn up the television anymore.”



# Initial Verification of Patient Performance with Syncro

Benefits of the design principles of Syncro, it is reasonable to expect improved performance compared to previous levels of hearing aid technology, especially in more challenging listening environments.

The Artificial Intelligence system in Syncro coordinates the individual sound processing elements of the hearing aid. All elements of this system have been designed around a principle of improving the Voice to Noise ratio at any moment in time. This can be expected to deliver the greatest benefit in noisy and difficult listening situations. However, it is essential that these expectations be confirmed via careful clinical study. This article is designed to summarize two important investigations into the effectiveness of Syncro.

## Study 1

The first study (Flynn, 2004) was based in Denmark and included experienced hearing aid users with moderate sloping sensorineural hearing loss. (The data from the first 30 of those patients is cited here.) All subjects were satisfied and current users of Adapto digital hearing instruments. Adapto is an advanced digital hearing instrument that is manufactured by Oticon. Subjective performance was measured comparing the patients' previous, well fit custom hearing instruments to Syncro's custom hearing instruments. To maintain a

higher level of experimental control, objective speech understanding in noise performance was measured comparing Syncro to Adapto fittings made on each of these patients.

The results of this study supported the core expectations for Syncro. In terms of subjective reactions, the patients compared the performance of Syncro to their previous Adapto devices on two different scales. Figure 1 provides the mean subjective ratings of 30 patients across nine listen-

ing situations. The significant differences between Syncro and the Adapto devices are highlighted. These differences occur for some of the most challenging communication environments faced by patients, e.g., speech in a group, speech in a busy street.

## Study 2

The second study (Schum & Pogash, 2004) is based in the U.S. and focuses on the initial subjective reactions of patients to Syncro. The data presented here is for the first 81 new and experienced patients.

Figure 2 provides the subjective response of 53 experienced patients. These patients had been wearing a variety of different devices prior to being fit with Syncro. People wore mostly digital devices fit within the last four years. The patients were asked to compare the performance of Syncro to their previous hearing aids on a five point scale. As can be seen, on most of the questions, over 80% of the patients rate Syncro as "somewhat better" or "much better" than their previous devices, with 87% of patients expressing an overall preference for Syncro. As with the Flynn (2004) study, **some**

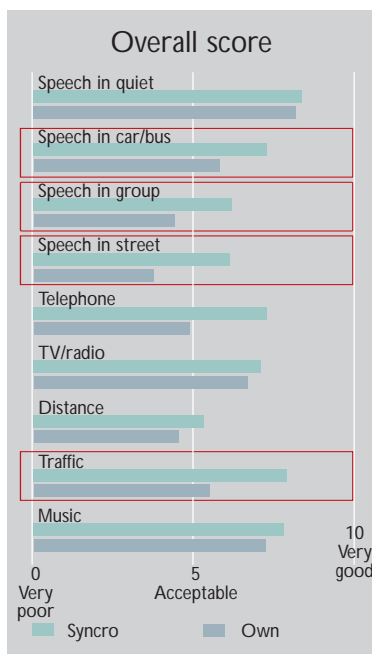


Figure 1: Mean subjective ratings comparing Syncro to the subjects own digital devices.



**of the strongest preferences for Syncro were in the most challenging listening environments, such as speech in noise and changing levels of noise.**

The results from this study confirm that Syncro has a significant impact on the lives of its wearers. The findings support the fact that Syncro has performed well in the most challenging listening situations, where standard hearing instruments have had limited success. The ability to hear in these challenging environments is the element that has led to Syncro's immediate patient acceptance and overall patient satisfaction.

When reviewing the data across the two studies, it is clear that Syncro has been able to provide the types of benefits expected from Artificial Intelligence. The device was designed to attack some of the most difficult remaining problems faced by hearing aid wearers. These results show that those design goals are being addressed, even as we continue to improve.

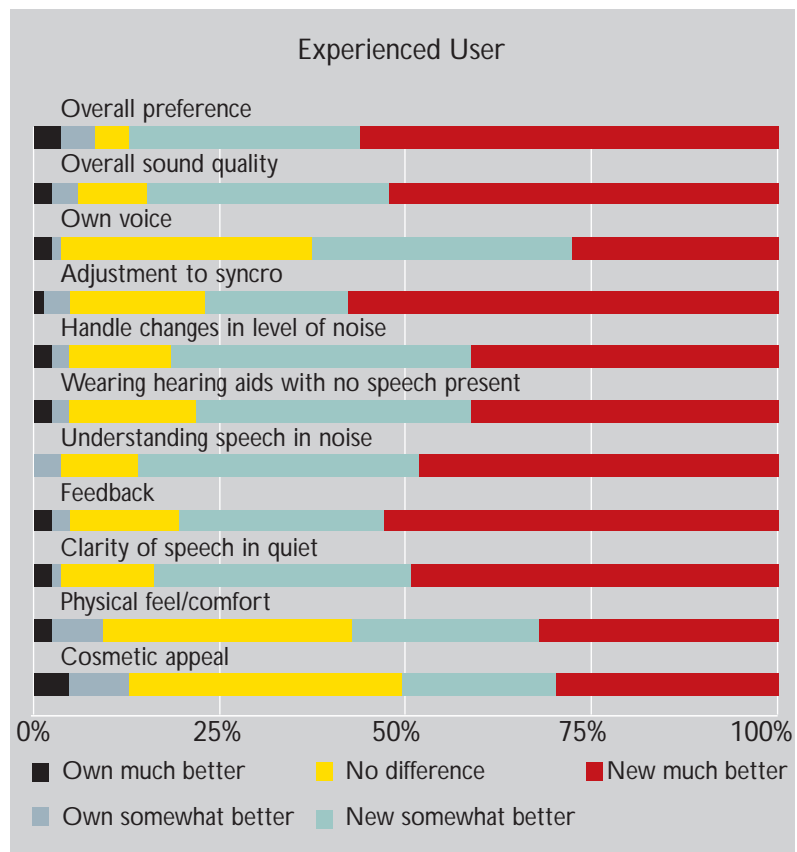


Donald J. Schum, Ph.D., CCC-A  
Vice President,  
Audiology &  
Professional Relations,  
Oticon Inc.



This woman is wearing Syncro Behind-the-Ear with a virtually invisible thin tube solution.

Figure 2: Subjective ratings for experienced hearing aid users from Schum & Pogash (2004).



References: Flynn, M. (2004). *Clinical Evidence for the Benefits of Oticon Syncro*. Oticon White Paper. Schum, D. & Pogash, R. (2004). *Initial Patient & Professional Responses to Oticon Syncro*. News from Oticon. In preparation.



# Take a Journey Towards Better Hearing

**Y**ou have picked a good time to start investigating how hearing loss could be affecting your life and possible solutions. This is because, along with the advancements that have been made in hearing instrument technologies, the counseling process has also made progress and become more engaging and interactive.

With eCaps, your Hearing Care Professional can show you all aspects you want to know and how to get the most out of your Syncros, the most advanced hearing instruments on the market.

eCaps is an interactive multimedia software program designed to be used by your Hearing Care Professional. The program contains auditory and visual demonstrations that explain how we hear, the consequences of having a hearing loss, how hearing aids help in noisy situations and communication strategies that should be

utilized in conjunction with amplification.

## Understanding Hearing Loss

Understanding how instruments are designed to help your listening needs is very important. Equally important is helping you and your loved ones understand the impact hearing loss is having on your daily life. The hearing loss simulator in eCaps demonstrates the amount of information you are missing to your family and friends. By understanding your hearing loss better, you will be able to make an informed decision about the best possible hearing care solution.

## Setting Realistic Expectations

It is important that you and your family have realistic

expectations about the benefits amplification can provide. eCaps helps facilitate discussion points for traditional issues such as the proven benefits of binaural fitting (wearing two hearing aids), occlusion (plugged sensation), size, color, type of instrument, etc. It is important to understand which type of hearing aid is appropriate for your hearing loss and where Syncro will outperform standard hearing aids.

eCaps provides a variety of real life situations, such as a walk in the park, watching TV or a more challenging situation like a conversation on a busy street corner. All the situations are very detailed in sound as well as pictures, so that both you and your family can appreciate the benefits of Syncro.



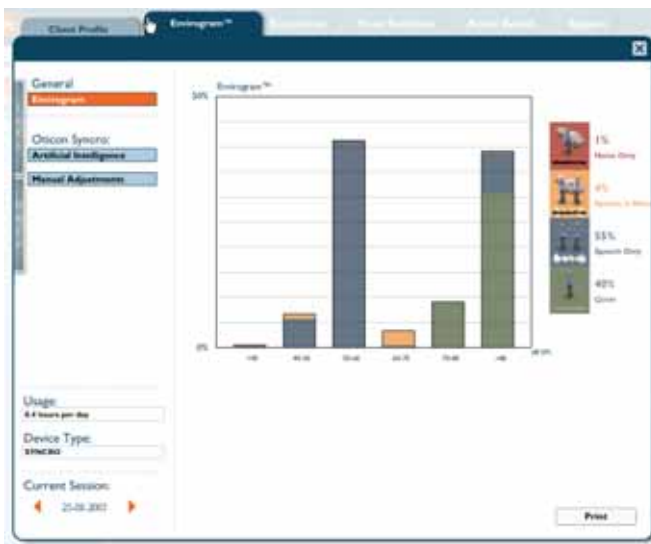
This screen provides a visual tour of the ear.



This screen demonstrates how you hear speech and environmental sounds with your hearing loss.



These screens show how certain hearing aids look in-the-ear, behind-the-ear and the different color choices available to match your hair or skin tone.



This chart depicts the percentage of time you spend in different sound environments.



This screen simulates a typical family scenario and how hearing is affected by multiple noise sources.

### A New Personal Experience

Being able to leave with an understanding of your problem and realistic expectations to its solution is valuable. Sometimes it is difficult to remember everything that was discussed during your

appointment. eCaps provides a personal treatment plan, which summarizes everything that was discussed. Your Hearing Care Professional will give you a printout of the summary to take home.



Danielle Tyranski, M.A., CCC-A  
Manager, Education and Professional Relations  
Oticon Inc.



## Syncro Activity Analyzer and Envirogram – replaces guess work with facts . . .

*... to help ensure you are fitted with the optimal hearing solution.*

**T**he Activity Analyzer in your Syncro hearing aids records your actual usage patterns and the performance of Syncro's automatic systems. This gives your Hearing Care Professional information to ensure your hearing aids are optimally programmed and that you are using them effectively."

When you have been wearing Syncro's for a time, a data record can be downloaded into a computer. Your Hearing Care Professional can then produce a detailed record (we call it an "Envirogram") of the different sound environments in which you have been wearing your Syncros.

This record can be used to check and verify that Syncro's automatic features, like Directionality, Noise Management and Compression, are working appropriately for you and can be used to help fine-tune your instruments, if necessary.





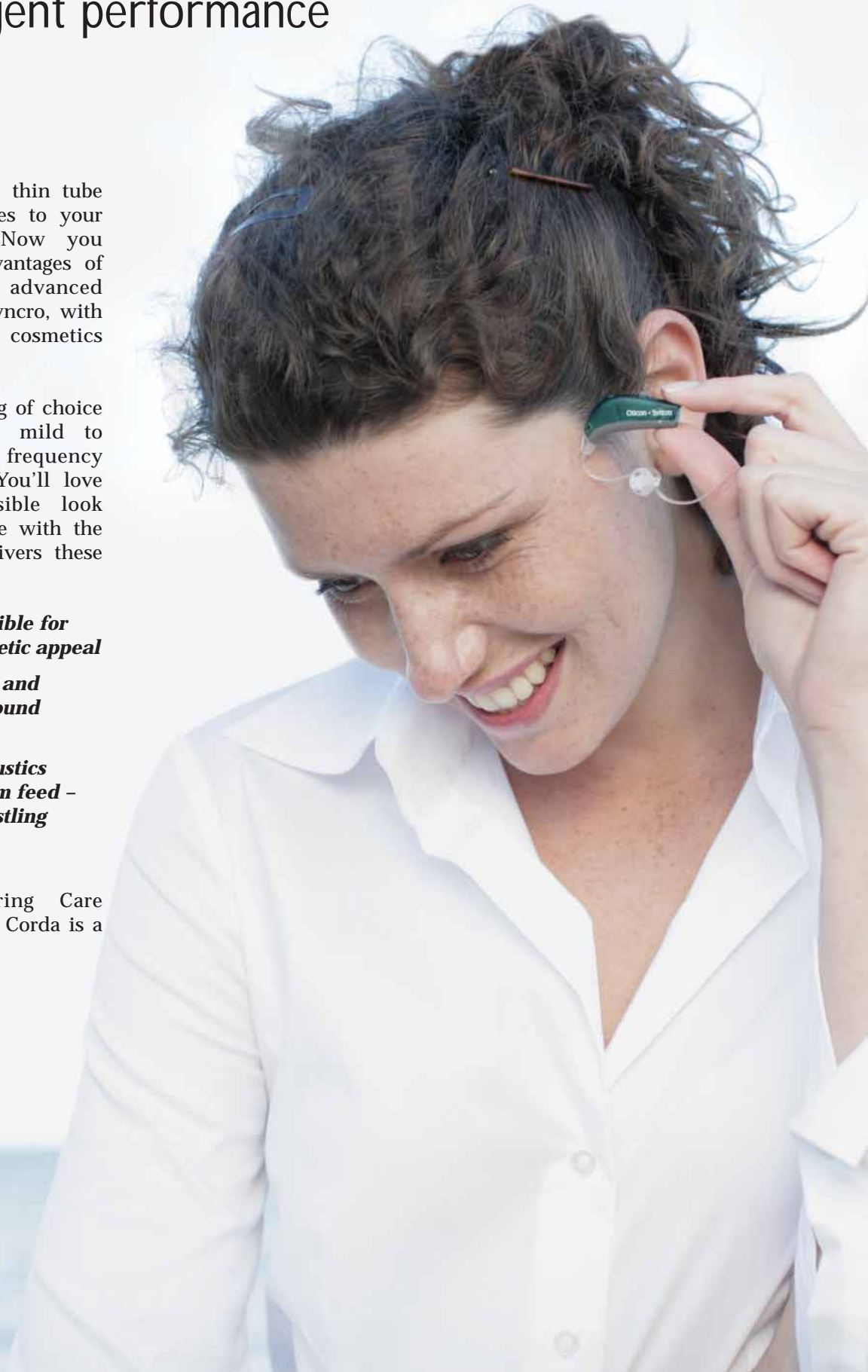
## Corda is the perfect combination of intelligent performance and style

Corda is an open thin tube that easily attaches to your Syncros BTEs. Now you can have the advantages of Oticon's most advanced instrument, the Syncro, with greatly improved cosmetics and comfort.

Corda is the fitting of choice for people with mild to moderate high frequency hearing losses. You'll love the nearly invisible look that you can have with the Corda, which delivers these important benefits:

- ***Virtually invisible for excellent cosmetic appeal***
- ***Natural, open and comfortable sound quality***
- ***OpenEar Acoustics – freedom from feedback and whistling***
- ***Instant fit***

Ask your Hearing Care Professional if the Corda is a good fit for you.





# Oticon Syncro - As seen in newspapers, magazines and television across the country!

From New York City to Seattle, the buzz about Oticon Syncro with Artificial Intelligence has captured the attention of news media. Hearing care, more than ever before, is receiving the attention it deserves.

A television news segment on Oticon Syncro was taken up by television stations nationwide last July. The 2-minute segment introduced Oticon Syncro as the **“First hearing aid using Artificial Intelligence based on our understanding of the way the brain processes sound.”** The footage included of a satisfied user describing her positive experience with Oticon Syncro.

The segment has aired on 150 stations for a total of 170 broadcasts segments on morning, noon and evening news programming, reaching millions of households.

Broadcast media were not the only ones to pick up on this story. The newspaper media did as well. **The Associated Press** ran a feature article entitled **“Oticon Marks 100 Years with a Smarter Hearing Aid.”** The article was syndicated to over 800 newspapers nationwide, resulting in Syncro stories popping up in local newspapers generating more and more awareness and excitement.

All this indicates that the media is taking a stronger interest in hearing related issues these days. The point of interest seems to center around the fact that some 28 million Americans are hearing impaired and that their ranks are being swelled by increasing numbers of baby boomers. The other twist is that new technologies,



such as the Artificial Intelligence in Syncro, offer real and significant benefits to people with hearing loss - without many of the drawbacks and limitations of older devices.

The fact that prestige media, such as Business Week, The New York Times, Popular Science and Men's Health, have joined in on the publicity explosion of Syncro indicates the level of interest now taken in hearing related issues.

**Business Week** magazine carried a report in the magazine's INNOVATIONS section that called Oticon Syncro: **“a new hearing aid uses artificial intelligence to mimic the brain's ability to detect speech while filtering out distracting sounds.”** The article appeared in the July 19 edition.

On August 1, Business Week TV, a nationally syndicated television program produced by Business Week magazine, aired a segment on Oticon Syncro. This popular news show reaches approximately 80% of U.S. television households.

On August 12, **The New York Times** published an article entitled, **“The Brainy Hearing Aid Extracts Meaning from Noise.”** The newspaper's “Circuits” section reported on Oticon Syncro as a new hearing aid designed to address “one of the most challenging tasks for the hearing-impaired . . . communicating effectively in noisy environments.”

The September issue of **Popular Science** Magazine spotlighted Oticon Syncro in the “What's New” section: **“the first hearing aid to use AI can make real-time adjustments that simultaneously tweak noise filtration, speech detection and volume.”**

The media blitz on Syncro has made millions of consumers aware of this latest breakthrough in hearing technology and has changed their lives for the better.



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**“I thought I’d heard everything...”**



**“I thought my current digital hearing aids were state-of-art, but my audiologist proved me wrong.”**

“When it comes to my health, I deserve the best. But even with my current hearing aids, I had difficulty hearing in background noise, on the phone and at family gatherings. I began to feel that I was missing out on a lot of important conversations. So I got this new set of hearing aids that do their own thinking. And now I know how much I was actually missing out on.” - *Rose Willits*

**Are you settling for “second best”?**

So far, people have overwhelmingly chosen Oticon Syncro over other products in clinical tests. Four out of five patients tested said Syncro was better than their current hearing aids, while 89% declared an overall preference for Syncro.

#### **Oticon Syncro with Artificial Intelligence**

Syncro is the world’s most advanced hearing aid. The hearing aid can actually analyze and adapt to the changing sounds around you instantly and automatically. You’ll experience a whole new level of sound clarity and confidence.

**Why not let your ears be the judge. Call today for an appointment and a free demonstration of Oticon Syncro.**





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