

Discover *a Whole New World*

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PHONAK

life is on

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Hear Your World

HiResolution™ Bionic Ear System
by Advanced Bionics

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“There certainly has been a lot of buzz at our local pool where Kaelen has been wearing her Neptune processor. The lifeguards are all so amazed at the technology and that she’s able to hear in the pool. She can now hear the three whistles when the lifeguard tells everybody to get out of the pool.”

—Kristi Fulford,
Mother of Kaelen, AB recipient

Hearing with a cochlear implant

A cochlear implant is an electronic device that allows many people with severe-to-profound hearing loss to hear the world around them. People who have never heard before may experience hearing for the very first time.

Selecting the right cochlear implant for you or your child is a significant decision. For something as critical as your ability to hear, you need reliable, high-performing technology that helps you hear your world all-day long and offers full upgradeability for future hearing improvements without the need for surgery.

Reliability You Can Count On

With an Advanced Bionics cochlear implant system, you will have peace of mind knowing that you or your child can count on the advanced technology to work every day. You will also experience fewer interruptions in hearing because AB offers high system reliability.

“I chose AB because of the headroom of the internal device and the durability of the external device.”

—**Ellyn McCall**, mother of Seth, AB recipient



Top Hearing Performance in Everyday Situations

With AB's unequalled technology and performance, you or your child can hear your best in the challenging listening environments encountered throughout the day.

"With my AB cochlear implant I have my independence back and I don't worry or think about having to answer the phone; I can just reach out, pick up the phone and say 'hello.'"—**Debbie Quinn**, AB recipient



Hear Your Best All Day

AB's cochlear implant system is designed to help you or your child enjoy the best possible hearing from morning to evening so that you can enjoy your life with no limitations.

"I cannot imagine where I would be without my implants in today's world. Being able to hear is so very important. Without my implants, I would not be able to as fully participate in any of my sports, go to a mainstream school or know any of my friends."—**Regan Brady**, AB recipient

Tomorrow's Innovations with Today's Technology

When you choose a cochlear implant system from AB, you benefit from superior internal technology now and external upgradeability for the future so that your hearing advances as the technology does—without the need for surgery.

"AB's internal implant sophistication gives us confidence that the device will support future growth and technological advancements for years and years to come."

—**Susan Stibal**, mother of Lily, AB recipient



Hear Your World

The HiResolution™ Bionic Hear System from Advanced Bionics offers the industry's **most sophisticated technology** for the most optimal hearing performance. When you hear your best, as close to normal hearing as possible, with AB technology, you can **live your life with no limitations** and participate more fully in everyday activities and integrate more easily with hearing peers.

AB's revolutionary processor features the industry's **first freestyle™ wearing style** that gives you the opportunity to hear all day, every day, whether you are taking a bath, exercising, or even practicing extreme sports. Neptune has been designed to suit all ages, lifestyles, weather, activities and terrain.

From a **school classroom** to a **work environment** to a **social setting**, users of AB technology enjoy the confidence that comes with hearing their best all-day long. Choosing AB gives recipients the ability to use FM in the classroom, answer the phone at work, communicate in noisy surroundings, and hear in the water.

AB gives you or your child the opportunity to succeed.

- Enjoy more confidence in life
- Reach your full potential with no limitations
- Improve language development
- Access future technologies developed in collaboration with Phonak, the leading provider of hearing systems





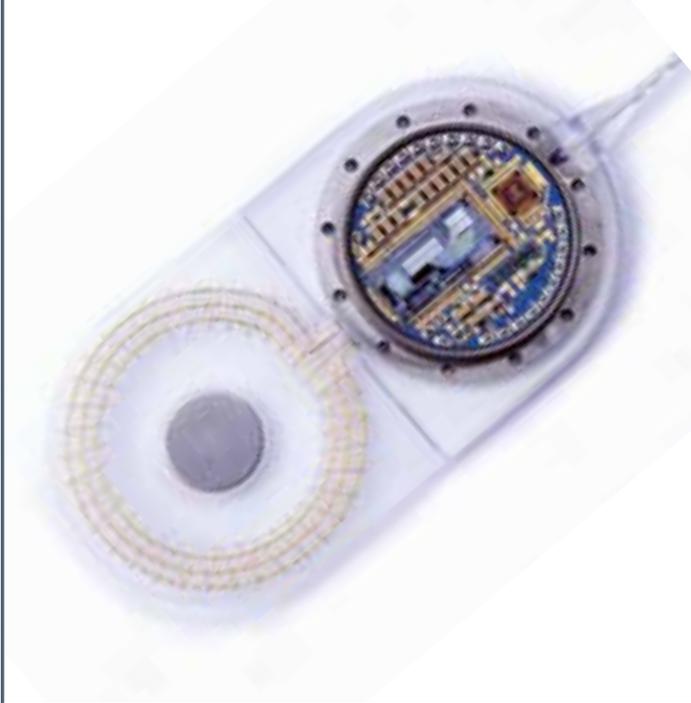
Neptune

The First **Swimmable** Sound Processor



Harmony

The Ultimate in **behind-the-ear** Wearing



HiRes 90K Implant

The **most advanced** Implant Technology

Flexible Wearing to Suit You

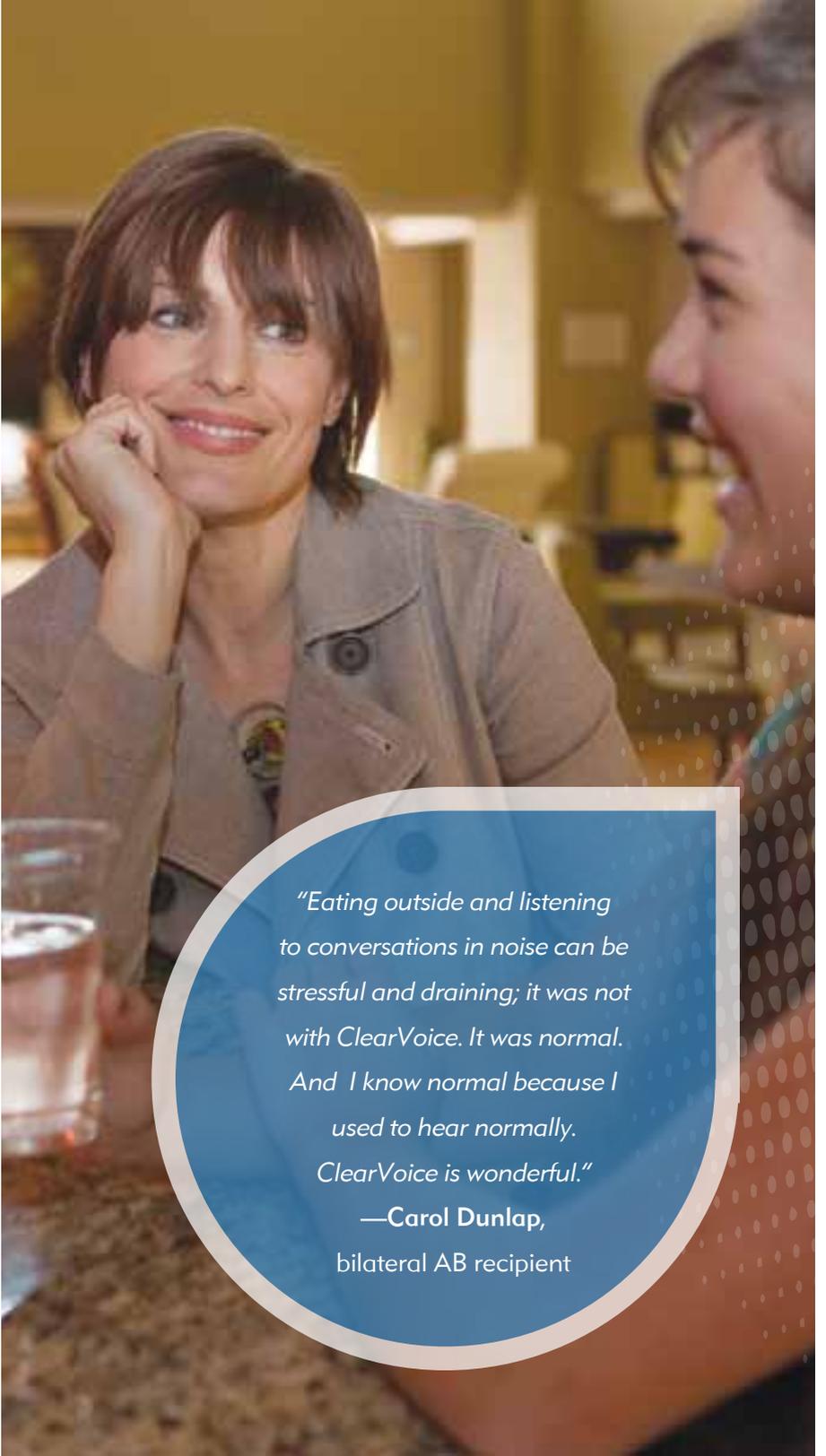
AB offers flexible wearing options to meet your needs. For those we prefer to wear nothing on the ear, the Neptune™ processor gives you the freedom to choose your wearing style—in your hair, on your arm, under your collar, in your pocket—without compromising performance. The Harmony™ processor is a comfortable, stylish, and highly functional behind-the-ear processor ideal for adults and children.

Advanced Technology for Superior Hearing Performance

Advanced Bionics stands apart with our unwavering commitment to developing top technology for superior hearing performance. When our recipients hear their best, they often succeed in mainstream schools alongside normal-hearing peers, achieve important career goals, and build meaningful relationships with loved ones.

AutoSound™ — Set It and Forget It

As you or your child engage in activities throughout the day, there is a rapid transition of sound from one moment to the next. AutoSound™ **adapts automatically** to your surroundings just like a normal-hearing ear. From quiet to loud environments, AutoSound **captures the widest Input Dynamic Range** of any cochlear implant system and **adjusts the volume instantly**, so that you hear more of your world, more effortlessly. With AutoSound, there is **no the need to change the settings** or controls on your sound processor. From airports and offices, parties to playgrounds, AutoSound is designed to optimize your hearing for every listening environment.



"Eating outside and listening to conversations in noise can be stressful and draining; it was not with ClearVoice. It was normal. And I know normal because I used to hear normally. ClearVoice is wonderful."

—Carol Dunlap,
bilateral AB recipient



ClearVoice is the Clear Choice

AB's ClearVoice™ strategy is a groundbreaking innovation designed to help you or your child **communicate with confidence**. Only ClearVoice automatically **analyzes and adapts to every listening situation**, then separates speech from surrounding noise for improved understanding and comfortable conversations. No matter which environment you or your child may encounter, from loud sporting events to noisy cars, cafés, and playgrounds, ClearVoice is designed to help you **hear speech without making a single adjustment** to your processor. In fact, ClearVoice is clinically proven to improve recipient outcomes.¹⁻³

Clinical References:

1. Buechner A, Brendal M, Soalfield H, et al. (2010) Results of a Pilot Study with a signal enhancement algorithm for HiRes 120 Cochlear Implant users. *Otol Neurotol*.
2. The ClearVoice Speech Enhancement Algorithm. Advanced Bionics White Paper, 2010.
3. Schramm D, Pickard ES, Beauregard Y, Moran A (2010). Evaluation of the ClearVoice™ Strategy in children using HiResolution Fidelity 120 sound processing. 11th International Conference on Cochlear Implants, Stockholm 2010.

HiRes Fidelity 120™ — Discover the dimensions of Sound

In order to help you **hear your best**, Advanced Bionics **continually innovates** sound processing technology designed to provide hearing that is as close to normal hearing as possible; AB's **HiRes Fidelity 120™** is designed to do just that for recipients.

As the **industry's only sound strategy** that uses 120 spectral bands to deliver five times more sound resolution than any other cochlear implant system, HiRes Fidelity 120 has been developed to **reveal all the dimensions of sound**, from the rich layers of music to the subtle nuances of tone during a conversation.

"When I was upgraded to Fidelity 120, the finer pitch perception allowed me to enjoy all my favorite music again." —**Howard Samuels**, bilateral AB recipient



Technology Working in Concert for Your Music Enjoyment

AB's technology is designed to help you or your child hear music without missing a note.

HiRes Fidelity 120™ Sound Processing

The only strategy that can **implement simultaneous current steering** to deliver the dimensions of music (loudness, pitch, timing) for a **full musical experience.**

AutoSound™

continually adjusts the volume as you listen, ensuring that you catch every moment.

Wide IDR (Input Dynamic Range)

enables AB recipients to **hear more sound with less distortion,** so it's easier to hear music, make out lyrics, and discern individual instruments.

T-Mic™ Microphone

makes it **effortless to use your MP3 player.**

As the industry's only microphone placed at the opening of the ear canal, the T-Mic takes advantage of the outer ear's ability to gather music's vivid sounds.

"My most memorable hearing experience with my cochlear implants was the ability to hear at my wedding—the music, the vows, the cameras clicking, the people—and the ability to hear our precious kids when they were newborns."

—**Kim Brownen**, bilateral AB recipient

NEPTUNE™

By Advanced Bionics



Discover Neptune™*, **the first and only swimmable** sound processor in the world with the most flexible wearing styles ever—only available from AB, the global leader in cochlear implant technology. Whether you enjoy taking a dip in the pool on a warm day or bonding with your child at bath time, Neptune delivers hearing during these important activities.

Designed for the **best hearing performance** in and out of the water, Neptune also is compatible with the industry's most advanced hearing technology, including AutoSound™, ClearVoice™, and HiRes Fidelity 120™.

So jump in the pool, sing in the shower, and **hear your world** with the revolutionary Neptune processor!

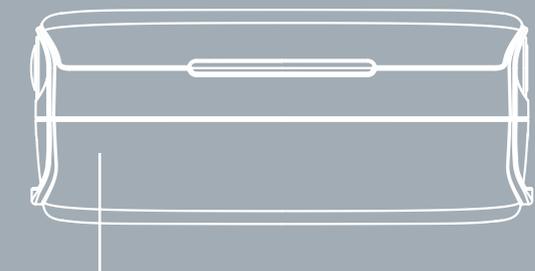
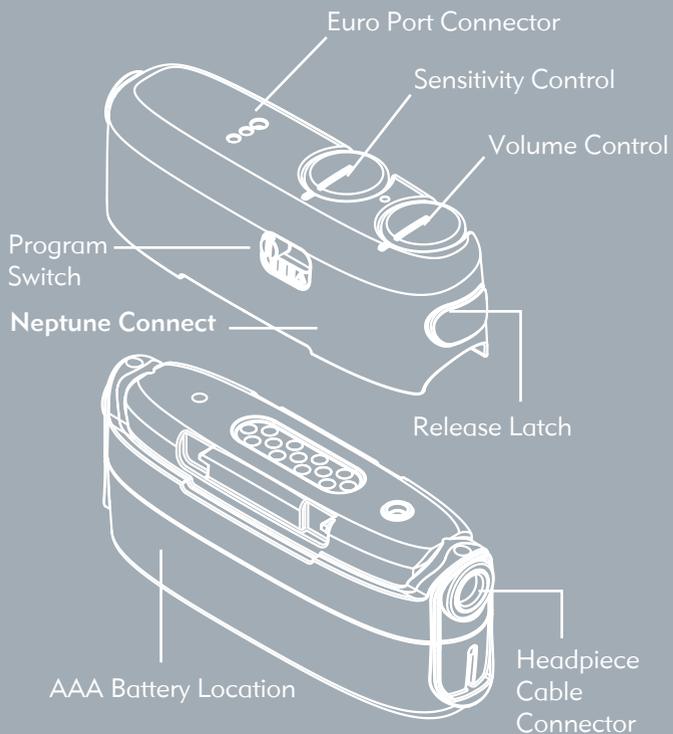


NEPTUNE™ | strength in design

By Advanced Bionics

IP68† strength in numbers

AB has the industry's highest rating!

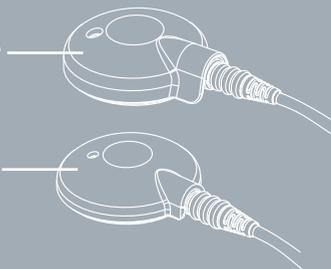


Sound Processor

Ready for Swimming!
(Profile view without Neptune Connect)

Waterproof AquaMic™ Headpiece

Low-profile Universal Headpiece



IP Ingress Protection



6

Protection against solid foreign bodies
Rating: 0 indicates no protection and 6 indicates dust tight. AB offers maximum protection against solid particles.



8

Protection against various forms of moisture
Rating: 0 indicates no protection and 8 indicates protection against complete, continuous submersion in water.
Only AB offers the world's first processor and microphone intended for repeated submersions.

†Complies with IEC 60529 IP68 rating.

Wear it **Your Way,** every day

Developed for **all ages** and **lifestyles**, the lightweight Neptune processor features the industry's first freestyle™ design, allowing you or your child to hear your world with the comfort of **nothing on the ear**. Only Neptune gives you the freedom to choose your wearing style—in your hair, on your arm, under your collar, in your pocket—without compromising performance. Whether you want to show it off or tuck it away discreetly, the freestyle design lets you **wear it just how you like it**.

Unique Features

- **Stylish**, elegant design inspired by popular consumer electronics
- Removable controls for **waterproof** and **childproof** wearing configuration
- Wide range of **fashion-forward colors** for mixing and matching
- **Two headpiece choices:** AquaMic™ or Universal Headpiece™
- **Power it** with one AAA battery, off-the-shelf disposable or rechargeable
- **Convenient accessories:** swim cap, armband, headband, clip, pouch, lanyard
- **Connect wirelessly** to Phonak Dynamic FM systems





Easy Useability

- Tactile controls
- IntelliLink™ safety feature to prevent bilateral mismatches
- Visual and acoustic indications
- Easy connectivity to FM and audio devices



Low-Cost Rechargeable & Disposable Batteries

- Powered by one AAA battery
- Cost-effective rechargeable batteries for up to 21 hours of battery life
- Convenient disposable batteries for up to 30 hours of battery life



Neptune Connect Controls

- Removable waterproof, childproof use
- Instant access to FM and audio devices



Accessories

- Clip
- Pouch
- Lanyard
- Headband
- Swim Cap
- Armband



Built Kid Tough™ Durability

All Weather • All Sports • All Terrain • All Ages • All Lifestyles

High-Performance Hearing

with HARMONY™



The Harmony™ behind-the-ear sound processor from Advanced Bionics uses sophisticated technology to help you or your child **hear your best** at work, at school, or at play. Harmony's patented **T-Mic™ Microphone** is the **industry's only microphone placed naturally at the opening of the ear**. The T-Mic uses the outer ear's sound-gathering capabilities to help you or your child hear better in noisy settings, use phones and earbuds like everyone else, and enjoy wireless connectivity to MP3 players.



Wear It!



All-on-the-ear

Comfortable behind-the-ear (BTE) wearing option.



Off-the-ear Power Option with PowerCel™ Adapter

This bilateral-ready Off-the-Ear Power Option is also capable of powering two Harmony processors from a single battery for added comfort and convenience.



Nothing-on-the-ear (NOTE™) with Kinder Clip™

Secure, off-ear wearing with a specially designed clip, ideal for little ones.

Style It!



Skinit

Skinit® designs allow you to customize your sound processor to match your mood or make a fashion statement. Dress your processor up with your favorite colors, sports teams, or works of art. You can choose from thousands of designs or even upload your own graphics for a completely unique look.

Accent Your Style

Accent your style with multiple color caps.



Blend In

Make your processor disappear with colors that blend to match your hair color and skin tone.

Skinit is a registered trademark of Skinit, Inc





Connect It

Available in standard and small sizes for you or your child's ear, Harmony sound processor earhooks offer **simple and quick connectivity**. The T-Mic™ is the only microphone placed naturally at the opening of the ear for highly focused hearing while providing connectivity to cell phones, MP3 players, and more.



Power It

AB's **convenient power options** are simple to operate and last for years. Ideal for all-day use, PowerCel™ batteries can be charged while you're sleeping for an outstanding hearing experience from morning to evening.



Reliability You Can Count On

AB cochlear implants implanted today demonstrate high reliability with a 99.8% one-year cumulative survival rate (CSR),⁴ a measure that defines the likelihood of a device continuing to function over time. Focusing on improving design, AB expects to drive AB's already high implant reliability even higher, while giving you or your child the innovation to hear more of your world and appreciate more of life's soundtrack. Rest assured that an AB cochlear implant will continue to work so you'll always hear your best.

"Advanced Bionics developed the first multichannel cochlear implant that could simultaneously or non-simultaneously stimulate different electrodes in the array...That was novel. And it's still novel. And it's why cochlear implants today are still going to be lead by Advanced Bionics."

—**Dr. Robert Schindler**, Professor & Chairman Emeritus UCSF Dept. of Otolaryngology

Experience the advantages of the **ultimate** Implant

The AB's cochlear implant is **the world's most advanced** cochlear implant for hearing that more closely resembles a normal-hearing ear. Offering superior sound processing circuitry, the AB's cochlear implant is designed to provide unsurpassed programming flexibility, nearly unlimited ways to deliver sound, and full upgradeability for access to tomorrow's innovations without the need for additional surgery.

Unmatched Features

- Nearly unlimited ways to deliver stimulation for **future** technology inventions
- The only device with **16 independent** current sources that facilitate simultaneous current steering to increase the number of pitches heard
- **Low-profile design** conforms to the shape of the head
- Removable magnet for MRI compatibility. **MRI safe** for scans at 0.3T and 1.5T with the magnet removed
- The industry's **highest** case impact resistance; able to withstand **6 Joules**^{5,6}
- High-precision gold coil for **the industry's fastest stimulation rate** to deliver more accurate timing of sound.

References:

4. Advanced Bionics Technology and Reliability Report. 2011.

5. Holtkamp V. Cochlear Implants Under Impact Loading. Evaluation of Accident Scenarios, Determination of Load Limits, and Development of a Standardizable Test Procedure. Dissertation accepted by the Senate of Hannover Medical School, May 19, 2004.

6. Cochlear Nucleus CI512 Cochlear Implant Technical Specifications. N33741F Iss1 Jun09.



"We chose Advanced Bionics because of their superior technology. We wanted to give our son, Cormac, the best access to speech and AB was the way to go. We could not be happier with our decision. It might be the single best decision I have ever made in my life."

—Jennifer Lawrence, mother of Cormac, bilateral AB recipient

The Cochlear Implant technology leader

AB was founded in 1993 by Alfred E. Mann with the mission to develop implantable patient care **solutions that improve quality of life.**

AB evolved from two highly successful companies that developed and marketed **innovative medical devices;** one created new generation pacemakers, and the other developed microinfusion systems (miniature drug delivery pumps used in the treatment of diabetes). The technology behind AB's first cochlear implant system came from the **pioneering research** at the University of California, San Francisco.

Since its inception, AB has consistently made **industry-leading advancements** in technology innovations that have helped make a difference in the lives of thousands of families worldwide.

Today, AB offers **the most sophisticated cochlear implant system** on the market with five times more sound resolution than its competitors, designed to allow recipients to go beyond deciphering speech to hearing music.

AB & Phonak innovating tomorrow's hearing solutions

In 2009, the hearing healthcare industry changed forever. Advanced Bionics partnered with Phonak, bringing together the most advanced cochlear implant and hearing instrument technologies into one family. With this perfect marriage, a **new horizon of hearing solutions** has opened up that will improve the way people hear. Together, AB and Phonak are **relied on by millions** of people each day for the best possible hearing experience.

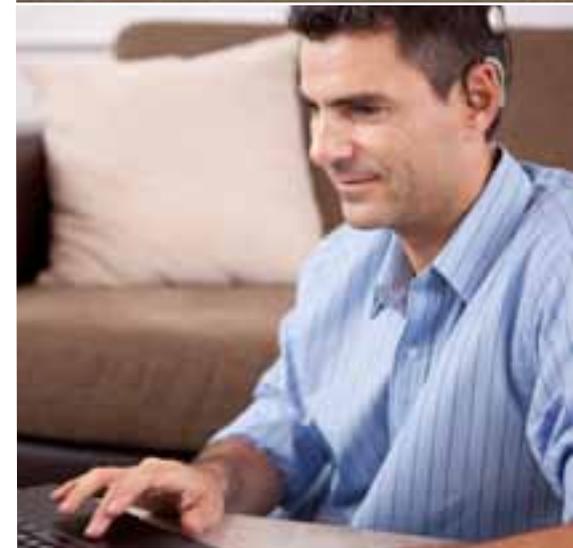
We deliver:

- More than **75 years of innovations** in hearing technology
- A **full spectrum of hearing solutions** for every level of hearing loss from mild to profound
- The **number-one choice worldwide** in pediatric hearing instruments
- **Industry-leading wireless communication systems** that help recipients understand speech in noisy situations.



PHONAK

life is on



Hear Your World

with Advanced Bionics

Choosing AB can help you **hear the sounds that truly enrich life**—the sweet songs of nature, shared laughter among friends, the many dimensions of music, and so much more.

Neptune – Waterproof Hearing



HiRes 90K Implant – Full Upgradeability



Harmony & T-Mic – Natural Hearing



ClearVoice – Confident Communication



AB

HiRes Fidelity 120 – Music Enjoyment



AutoSound – Set it and Forget it



"I think that a waterproof processor is going to revolutionize the industry. The one place our patients are not able to hear is in the water. Being able to now hear in the water is going to change their lives dramatically."

— **Joan G. Hewitt, Au.D.**, Pediatric Audiologist
at Project TALK, Inc. and Pediatric
Hearing Specialists, Inc.



