Only HARMONY Helps
You HEAR Your BEST

Selecting the right cochlear implant for you or your child is a big decision. While the look of a cochlear implant system is important, when it comes to something as valuable as your ability to hear your best—as close to normal hearing as possible—there’s nothing more critical than reliability and performance. Choose the only cochlear implant system that brings you the highest reliability and best performance in the world—the Harmony® HiResolution® Bionic Ear System (Harmony) from Advanced Bionics®.

Five important independent studies performed by leading research scientists show that you or your child will hear your best with AB.

- Spahr, Dorman, and Loiselle concluded that AB outperforms Cochlear in tests of everyday listening.¹
- Haumann, Büchner, and Lenarz found that Harmony recipients hear speech better in noise and everyday life situations than Cochlear recipients.²
- Gifford showed that 11 out of 11 recipients understood more sentences in noise with Harmony’s unique T-Mic® than with a behind-the-ear microphone.³
- Wolfe and Mears determined that recipients hear better with technology available only from AB.⁴
- Uhler et al demonstrated that 13 out of 13 study participants heard higher-quality sounds in everyday listening situations with the T-Mic technology only available with Harmony.⁵

“Without his Harmony cochlear implant, Michael Kade wouldn’t have any language skills, and he wouldn’t be going to a mainstream school. The implant has helped tremendously. He’s at grade level in every subject. He uses no signs; he’s mainstream on everything. It’s just amazing—amazing. It’s the best piece of equipment, in my opinion, that’s ever been made.” — Michael Fotta, father of Michael Kade, implanted at age 2

HEAR YOUR BEST
The world's most reliable, best performing cochlear implant system
NUMBER ONE in System RELIABILITY

If any part of your cochlear implant system requires repair or replacement, you won’t be able to hear during that downtime. While part of your child’s cochlear implant system is repaired or replaced, language skills stop developing and your words of encouragement won’t be heard. You need a cochlear implant that you can rely on, so when choosing one for you or your child, you should know the "Total System Reliability"—the reliability of both the internal and external components combined—in order to make the right decision. By selecting the Harmony System, not only will you experience the highest reliability of internal components, you’ll also enjoy the highest reliability of external components, which gives you more hearing and less downtime. You can count on the Harmony System to keep you hearing your best day after day.

AB recognizes the need to improve the recipient’s experience with reliability. Over its 16-year history, AB has remained focused on making significant advancements in the reliability of its cochlear implant systems. Dramatic improvements have been achieved, positioning today’s AB cochlear implant system as number one in Total System Reliability. While researching reliability, make certain you have the most current data available.

Why Reliability Matters

With an Advanced Bionics cochlear implant system, you’ll have peace of mind knowing that you or your child can count on your internal device every day for better hearing at work, school, or play. You’ll also experience fewer interruptions in hearing because of a broken external sound processor. From your baby’s giggle to a cat’s purr, you won’t miss the special details of life when you choose a reliable cochlear implant system you can really depend on—Harmony, only from AB.

Highest Internal Reliability

Mode to fast, AB cochlear implants implanted today demonstrate the industry’s leading reliability with a 99.6% two-year cumulative survival rate (CSR), a measure that defines the likelihood of a device continuing to function over time. You can rest assured that an AB cochlear implant will continue to work so that you always hear your best.

Highest External Reliability

Built to survive real-world conditions, including rain, perspiration, and moisture, Harmony’s external components have the industry’s lowest failure rates of less than 1%, which means that you will hear longer without interruption.

"I just love Harmony. I love the processing speed on it and the ability it has to translate music for the kids. I just think it’s great. Advanced Bionics has been really, really good—they get things to us on time, and the new programming they have is phenomenal."—Sara Sims, mother of Joey, implanted at age 19 months; and Aaron, implanted at age 14 months

AB reports and publicizes external reliability data. Ask your audiologist about the external reliability rates of other cochlear implant manufacturers and how poor external reliability can impact your hearing experience.

The world’s most reliable, best performing cochlear implant system
The World’s BEST HEARING PERFORMANCE

Harmony features the world’s most sophisticated technology to bring you clear, high-resolution sound. While most cochlear implants on the market were designed to perform best in quiet, clinic-like conditions, Harmony is designed to help you hear well in everyday settings like busy offices, noisy classrooms, and bustling restaurants. In fact, important comparative studies conducted by leading independent researchers show that AB surpasses other cochlear implant manufacturers with better hearing performance in real-world situations.1,2 Only AB delivers the best performance by offering the Harmony Advantage—the industry’s most advanced technology.

• HiResolution® (HiRes®) Sound—the clearest, most accurate sound with five times more resolution than any other cochlear implant system

• AutoSound™—automatically adapts to your surroundings, just like a normal-hearing ear, so there’s no fumbling with dials or switches to continually make adjustments for changing sound environments

• T-Mic® Microphone—the only microphone placed naturally at the opening of the ear for highly focused hearing while providing wireless connectivity to cell phones, MP3 players, and more

WHY PERFORMANCE MATTERS

Along with reliability, performance is the most important consideration when it comes to selecting the right cochlear implant for you or your child. As an adult recipient, you want to easily participate in conversations that take place in noisy settings and on the telephone. You also want to hear all the details that make the world of sound so rich—the singing of birds, the complexities of a musical composition, and so much more. Children need to hear the world’s reflections, inflections, and patterns essential for developing strong speech skills without having to remember to adjust their sound processors. With Harmony’s unequaled technology and performance, you or your child can hear your best.

Several important comparative studies conducted by leading independent researchers show that AB surpasses other cochlear implant manufacturers with better hearing performance in real-world situations.1,2

"Emily’s above grade level for all of her subjects, including her reading and comprehension. Her teachers don’t have to mess with switching out programs. Emily knows how to do everything with it. It’s an easy system to use, so kids can start early, taking care of it themselves." —Helen Cartwright, mother of Emily, implanted at age 13 months; bilaterally implanted at age 6

Emily's above grade level for all of her subjects, including her reading and comprehension. Her teachers don’t have to mess with switching out programs. Emily knows how to do everything with it. It’s an easy system to use, so kids can start early, taking care of it themselves." —Helen Cartwright, mother of Emily, implanted at age 13 months; bilaterally implanted at age 6

The Harmony Advantage, only from AB, lets you hear your best anytime, anywhere.
Reliability and performance are the most critical considerations when selecting the right cochlear implant for you or your child. Appearance and size matter as well, but it’s important to keep in mind that the size of the external sound processor continues to get smaller over time. Since 1993, AB has decreased the weight of its sound processors by 94% and will continue to develop smaller external components. How your sound processor looks will undoubtedly change over time—but what matters more than its appearance and size is the technology inside that delivers the best hearing experience to you or your child.

Rely on the Experts to Help You Make the Right Decision

When faced with an important decision, turning to experts can help you make the right choice for you or your child. The five independent studies included here were performed by research experts in the field of cochlear implants. These unbiased studies—not conducted by AB—show AB’s Harmony System offers the highest level of performance. All cochlear implant systems are designed to help you hear…but only AB’s superior technology helps you hear your best in the real world.

WHY THE TECHNOLOGY INSIDE MATTERS

The size and outward appearance of your cochlear implant system won’t help you hear any better. To hear your best, you need what’s best on the inside. 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. You can count on new innovations from AB to improve your quality of life.

Throughout its 16-year history, AB has consistently made the industry’s leading technological hearing advancements, including superior temporal resolution, spectral resolution, dynamic range, and stimulation flexibility.

<table>
<thead>
<tr>
<th>AB</th>
<th>Cochlear</th>
<th>Med-El</th>
<th>Why this Matters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporal Resolution (Stimulation Rate, pulses per second or pps)</td>
<td>Up to 33,000 pps</td>
<td>Up to 14,400 pps</td>
<td>Up to 50,000 pps</td>
</tr>
<tr>
<td>Spectral Resolution (Spectral Bands)</td>
<td>Up to 120</td>
<td>Up to 20</td>
<td>Up to 12</td>
</tr>
<tr>
<td>Input Dynamic Range (IDR) (Decibels or dB)</td>
<td>Up to 80 dB</td>
<td>45 dB</td>
<td>55 dB</td>
</tr>
<tr>
<td>Simultaneous Stimulation Circuits</td>
<td>Multiple</td>
<td>Single</td>
<td>Multiple</td>
</tr>
</tbody>
</table>

AB has decreased the weight of its sound processors by 94% and continues to work on developing smaller external components.

**HiRes® 90K** circuitry (shown above) provides nearly unlimited ways to deliver stimulation—including ways not invented yet. It is the only device with 16 simultaneous stimulation circuits.

*The Bionic Ear appeared to offer more potential for being upgraded in the future as new and better coding strategies and software became available so that I could conversely have more and better hearing.*—Michael Chorost, implanted at age 37
Hear Your Best with AB...
Proven by Research Experts Spahr, Dorman, and Loiselle

RESEARCH REVELATION
In an independent study by experts Spahr, Dorman, and Loiselle, AB outperformed Cochlear on tests of everyday listening.1

WHY THIS STUDY MATTERS
This independent study shows that Harmony outperforms the competition in three common hearing situations: quiet environments like libraries, noisy settings like restaurants, and when speech is as soft as a whisper. And unlike competitor devices, with AB cochlear implant systems, no turning dials or flipping switches is needed every time you move from quiet to loud settings. So whether a professor calls on you in a loud lecture hall or your spouse whispers, “I love you,” with AB’s Harmony System, you’ll hear the incredible sounds that enrich life and relationships.

Mean sentence score in quiet, noise, and at a soft level for 13 AB users and 13 Cochlear users. AB users hear better than Cochlear users in noise and when speech is soft.1

“Advanced Bionics’ technology allowed for a variety of performance strategies. It could be adjusted to take into account each child’s unique hearing response to the implant.”—Debbie Brilling, mother of Samantha, implanted at age 16; and Jonathan, implanted at age 6

AB
Cochlear

Hear your best in real-world situations like when you’re singing lullabies to little ones and listening to the daily special at the local café.

Cochlear, Nucleus, and Freedom are trademarks of Cochlear Limited.

“Hear your best” is registered trademark of Advanced Bionics Corporation, Inc.

1Mean sentence score in quiet, noise, and at a soft level for 13 AB users and 13 Cochlear users. AB users hear better than Cochlear users in noise and when speech is soft.

Advanced Bionics’ technology allowed for a variety of performance strategies. It could be adjusted to take into account each child’s unique hearing response to the implant.”—Debbie Brilling, mother of Samantha, implanted at age 16; and Jonathan, implanted at age 6
Hear Your Best with AB...
Proven by Research Experts Haumann, Büchner, and Lenarz

RESEARCH REVELATION

Unbiased research by Haumann, Büchner, and Lenarz concluded that Harmony recipients hear speech better in noise and everyday life situations than Cochlear recipients.\(^2\)

WHY THIS STUDY MATTERS

Whether you’re in a meeting at the office or your child is reading aloud in the classroom, hearing speech is crucial to fully participate. This independent study proves that Harmony recipients hear speech better in noisy situations and group gatherings.

AB’s unique AutoSound™ technology automatically adapts to changing listening environments so that you hear your best in everyday settings. For your child’s language development, the best way to learn how to speak is to hear people speak, which is why it’s important to choose a cochlear implant system that allows them to hear speech in a variety of real-world settings from classrooms to school plays, not just silent sound booths in clinics.

"Megan has not only caught up with her peers, but in many areas has surpassed all expectations and is above average in most speech and comprehension categories, which means in just over 1½ years, Megan went from a ‘deaf’ child, not hearing or speaking a single word, to a child who speaks better than many of the children of her same age.”—Edward Knecht, father of Megan Knecht, bilaterally implanted at age 18 months.

With AB’s superior technology, your child can develop language skills even in noisy classroom settings just like their normal-hearing peers.
The World’s Best Performing Cochlear Implant System

Hear Your Best with AB...
Proven by Research Expert Gifford

Gifford showed that 11 out of 11 recipients understood more sentences in noise with Harmony’s unique T-Mic® than with a behind-the-ear (BTE) microphone.3

Individual sentence reception thresholds (SRTs) (left) for 11 Harmony recipients using the BTE microphone and the T-Mic only from AB. A smaller SRT is better and means that the listeners can hear the same sentences in more noise. Scores with T-Mic were better for all subjects.2

WHY THIS STUDY MATTERS

Hearing in noise is a common challenge for everyone, but especially for people with hearing loss. Whether you’re at a dinner party, wedding, or networking event, you want to easily participate in the lively discussions that take place—not struggle to keep up with the conversation, so it’s important to choose the cochlear implant system that performs well in these challenging settings. This study shows that in noisy situations, AB helps you hear more of your world.

Harmony helps ensure you won’t miss a moment at lively gatherings, from birthday parties to business meetings.

“It’s pretty awesome anywhere I go. If I’m in a noisy restaurant, a nightclub, or a raceway, I have no trouble hearing people talk. I never thought this would be possible for me.” —Jaki Scheckter, works on Formula One car racing, bilaterally implanted at age 31

“Hearing in noise is a common challenge for everyone, but especially for people with hearing loss. Whether you’re at a dinner party, wedding, or networking event, you want to easily participate in the lively discussions that take place—not struggle to keep up with the conversation, so it’s important to choose the cochlear implant system that performs well in these challenging settings. This study shows that in noisy situations, AB helps you hear more of your world.”

Individual sentence reception thresholds (SRTs) (left) for 11 Harmony recipients using the BTE microphone and the T-Mic only from AB. A smaller SRT is better and means that the listeners can hear the same sentences in more noise. Scores with T-Mic were better for all subjects.2

“Hearing in noise is a common challenge for everyone, but especially for people with hearing loss. Whether you’re at a dinner party, wedding, or networking event, you want to easily participate in the lively discussions that take place—not struggle to keep up with the conversation, so it’s important to choose the cochlear implant system that performs well in these challenging settings. This study shows that in noisy situations, AB helps you hear more of your world.”

“Hearing in noise is a common challenge for everyone, but especially for people with hearing loss. Whether you’re at a dinner party, wedding, or networking event, you want to easily participate in the lively discussions that take place—not struggle to keep up with the conversation, so it’s important to choose the cochlear implant system that performs well in these challenging settings. This study shows that in noisy situations, AB helps you hear more of your world.”

**RESEARCH REVELATION**

Gifford showed that 11 out of 11 recipients understood more sentences in noise with Harmony’s unique T-Mic® than with a behind-the-ear (BTE) microphone.3

*"It’s pretty awesome anywhere I go. If I’m in a noisy restaurant, a nightclub, or a raceway, I have no trouble hearing people talk. I never thought this would be possible for me." —Jaki Scheckter, works on Formula One car racing, bilaterally implanted at age 31*
Hear Your Best with AB...
Proven by Research Experts Wolfe and Mears

**RESEARCH REVELATION**

An unbiased study conducted by Wolfe and Mears shows that 7 out of 7 Harmony recipients hear better with Harmony’s wide Input Dynamic Range, only available from AB.

**WHY THIS STUDY MATTERS**

This study demonstrates that Harmony’s wide input dynamic range (IDR) makes it easier to hear in the real world. Harmony users understand soft speech much better with a wide IDR than a narrow IDR. They’re also able to hear sounds that alert you—such as telephone rings, car horns, doorbells, and alarm clocks—much better with Harmony’s wide IDR. In the same study, Harmony recipients preferred a wide IDR over a narrow IDR for listening to music. The competition provides a narrower IDR than AB.

What is IDR?

Input Dynamic Range (IDR) is the range of the softest to loudest sounds that are detected by a sound processor. The wider the range, the more sounds you hear. Harmony’s AutoSound™ technology captures the widest range of sound of any cochlear implant system. With this wide range, you hear closest to the way normal-hearing people do, from a whisper to a shout.

AzBio sentence recognition scores for 7 adult Harmony users when speech was presented at a low level using narrow (40 dB) and wide (70 dB) IDRs. All listeners understood soft speech better with the wide IDR than with a narrow IDR (programmed like Cochlear Nucleus systems).

*Our family is losing being on this journey to hearing with Cole and incredibly thankful for the technology Advanced Bionics has developed so that our son can hear our voices and even music since it is such an integral part of our family’s life!* —Danice Burdett, mother of Cole, bilaterally implanted at age 15 months.
The World's Best Performing Cochlear Implant System

By Research Experts Uhler et al

Independent research conducted by Uhler et al demonstrated that 13 out of 13 study participants heard higher-quality sounds in everyday listening situations with AB’s T-Mic® technology than with a behind-the-ear (BTE) microphone.5

WHY THIS STUDY MATTERS

This important independent research shows that Harmony recipients prefer hearing in everyday situations with the naturally placed T-Mic over a conventional microphone that sits over or behind the ear. From quiet settings to loud playgrounds, phone conversations to music recitals, the Harmony System from AB will help you hear your best so that you can enjoy more of your world.

Catch every detail when your child calls home from summer camp or you relax and enjoy an in-flight movie.

“I’ve been implanted since 2001, and it has been the greatest gift I have ever received. From the moment I was hooked up, I loved my implant because it has truly given me back my life.” — Michelle Tjelmeland, implanted at age 27, bilaterally implanted at age 33

The choice is clear—hear your best with AB

Only Advanced Bionics offers the most reliable, best performing cochlear implant system in the world.

• AB delivers the highest Total System Reliability for uninterrupted hearing you can count on.

• AB’s advanced technology provides an unmatched level of performance, giving you a superior hearing experience that devices from other manufacturers cannot deliver.

• Independent research shows that Harmony outperforms the competition in real-world situations.

Now that you know you can hear your best with Harmony, take the next step by contacting the Bionic Ear Association™ to speak with a mentor about their journey to hearing with AB.

Contact the BEA at 866.844.HEAR (4327) or hear@AdvancedBionics.com

Trust Harmony for Your BEST HEARING Experience